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**The Influence of Autonomy and Integrity on the Quality
of Undergraduate Research: The Case of Second-Year
Licence Students of English, University of 8 Mai 1945,
Guelma**

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degree of "Doctorat Es-Science" in Applied Linguistics

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Dedication

I dedicate this work to:

My mother who supported me much by encouraging me and taking care of my children whenever I was absent.

My supervisor Prof. Youcef Beghoul for his acceptance to supervise this work and for his gentleness, valuable advice and constructive feedback.

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My brother Bilel.

My maternal grandmother Zohra.

The soul of my paternal grandmother Messaouda.

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Abstract

The objective of the current research is to explore the research quality of second-year Licence students of English in the University of 8 Mai 1945, Guelma (Algeria), and the influence of autonomy and integrity on this quality. Hence, two hypotheses were specified: First, training students to use research techniques and sanctioning plagiarists could lead to high-quality research. Second, high autonomy could result in research quality improvement. To test the first hypothesis, the experimental method was adopted through the Solomon four-group design. Four groups were selected randomly from second-year students of English. To test the second hypothesis, a students questionnaire was administered. Besides, a teachers interview was conducted to corroborate the results with those of the students' questionnaire. A pre-test as well as a test on plagiarism (Plagiarism Checker-X) were administered before the experiment to assess the students' research quality and academic integrity and ensure the equivalence of the groups. Findings from the plagiarism test, the pre-test, and the teachers' interview showed that the research quality of the majority of the students is average at best. An experiment was conducted by training students to conduct research through paraphrasing, citation, quoting, and referencing as well as raising their awareness of independent research stages through the Research Skill Development Framework (Willison & O'Regan, 2016). Findings from the post-test and the second plagiarism test revealed that more than half of the students in the experimental group avoided plagiarism due to the training and plagiarists' sanctioning. Quantitative data from the students' questionnaire indicated that the students' research quality is average due to their average level of autonomy. Therefore, both hypotheses were confirmed. Eventually, imposing an ethical code for each department and using sanctioning as a deterrence strategy are highly recommended.

List of Abbreviations

ALL	Autonomous Language Learning
APA	American Psychological Association
AR	Action Research
CAI	Centre for Academic Integrity
CALL	Computer Assisted Language Learning
CLT	Communicative Language Teaching
CMC	Computer-Mediated Communication
CRAPEL	Centre de Recherches et d'Applications en Langues
CSR	Case Study Research
DSGL	Directed Self-Guided Learning
ECST	Ethical, Cultural, Social, and Team
EFL	English as a Foreign Language
FLL	Foreign Language Learning
HE	Higher Education
IAF	Index of Autonomous Functioning
ILL	Independent Language Learning
IMR	Internet-mediated Research
IP	Intellectual Property
JISCPDS	The JISC Plagiarism Detection Services
L2	Language 2/Second language
LMS	Language Management System
LPA	Learning Preference Assessment
MLA	Modern Language Association
PBL	Problem-based Learning

PLEs	Personal Learning Environments
P^RBL	Project-Based Learning
RSDF	Research Skill Development Framework
RSES	Research Self-efficacy Scale
SACs	Self-access Centres
SALL	Self-access Language Learning
SCT	Social Cognitive Theory
SD	Standard Deviation
SDL	Self-directed Learning
SDLI	Self-directed Learning Instrument
SDLRS	Self-directed Learning Readiness Scale
SRSSDL	Self-rating Scale of Self-Directed Learning
SGL	Self-guided Learning
SRL	Self-regulated Learning
TLC	Teaching and Learning Continuum
USA	The United States of America
VLEs	Virtual Learning Environments
WWW	World Wide Web

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List of Symbols

F	Frequency
H₁	The research/alternative hypothesis
H₀	The null hypothesis
P	Percentage
R	Randomization
O	Outcome/observation
O₁	Outcome/observation of the pre-test in group one
O₂	Outcome/observation of the post-test in group one
O₃	Outcome/observation of the pre-test in group three
O₄	Outcome/observation of the post-test in group two
O₅	Outcome/observation of the post-test in group three
O₆	Outcome/observation of the post-test in group four
X	Experimentation
N	The size of the whole population/Number of participants
S	The size of the sample
Σ	The sum
F_x	Scores' frequency
\bar{x}	The mean
D	The difference between the means
μ_x	The mean of the experimental group
μ_y	The mean of the control group
$(\Sigma x)^2$	Sum of x squared
$(\Sigma y)^2$	Sum of y squared
Σx^2	Sum of the squares of x

$\sum y^2$	Sum of the squares of y
n_x	Number of scores in the experimental group
n_y	Number of scores in the control group
F	The degrees of freedom
t	Unrelated t-test
α	The alpha level
w	Weight allocated to each choice
R	Rank

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General Introduction

1. Statement of the Problem

Research in higher education is highly influential to promote students' independent learning. Within this scope, conducting research is a complex process that needs a well-skilled student who knows the basic skills and techniques of inquiry and has a high proficiency in academic writing. Although second-year Licence students in the department of English, University of 8 Mai 1945, Guelma (Algeria), are taught research methodology and writing, it is often observed from their written assignments and research projects that many of them do not conduct research independently. They do not have full control over their learning by directing it towards academic success and self-guidance instead of teachers' guidance. More interestingly, some teachers often complain about students' plagiarism of others' ideas and words especially with the easy access to the Internet that has facilitated academic dishonesty. Therefore, the quality of many students' written assignments is poor since they do not possess the required research skills that could direct them towards the fulfilment of a good written assignment. It is also remarked that dishonest students plagiarise others' words and ideas either consciously or unconsciously. Although most of students understand what is meant by plagiarism, many of them are unable to use research skills effectively to write their assignments. The main causes behind that are ineffective use of research techniques encompassing citation, paraphrasing, quoting, and referencing, lack of autonomy and independent research, as well as disrespect of intellectual property.

What complicated the issue is the lack of severe sanctioning despite of the enactment of the anti-plagiarism code by the Algerian Ministry of Higher Education in July 28th, 2016 which was a good initiative towards fighting academic dishonesty in the Algerian universities. Meanwhile, many students and teachers do not know about its

existence. Therefore, an honour/ethical code should be issued for each department in addition to informing students about it and using plagiarism pledges and severe sanctions to deter academic dishonesty, which is still a hard task to accomplish in the Digital Age due to the use of multiple digital sources and online sale of ready-made papers. In this context, teachers could play an important role in preserving academic integrity by detecting plagiarism through the use of electronic detection software.

Unlike previous studies that tackled the issue of plagiarism solely by investigating its causes and effects, this research investigated it in relation to autonomy by promoting students' independent research gradually through training and extensive practice of research techniques as well as raising their awareness about the necessity to collaborate with teachers to deter this complicated phenomenon that keeps spreading in the academic contexts. Eventually, enhancing the students' research performance and raising their awareness of the nature of plagiarism could result in high-quality research by promoting self-direction, self-monitoring, and self-guidance which is the highest degree of autonomy.

2. Aims of the Study

Recently, the use of the Internet to conduct research has increased students' autonomy and self-reliance. However, some students do not respect the rules of ethical conduct due to their lack of knowledge about plagiarism and how to avoid it. Consequently, academic integrity is lost. Within this scope, the current study aimed at investigating the influence of autonomy and integrity on undergraduates' research quality. Students who avoid plagiarism and work autonomously have higher research quality than those who are dishonest and not independent. In this respect, the aim of this research is two-fold:

1. To confirm the hypothesis that training students to conduct research through extensive practice of research techniques including citation, paraphrasing, quoting, and referencing as well as sanctioning plagiarists could lead to honest and high-quality research.
2. To prove the positive impact of autonomy on the quality of students' research.

3. Research Questions

The current thesis investigated two problematic issues: the first issue is the prevalence of plagiarism in many second-year students' written assignments and research projects, which denotes a lack of academic integrity and a bad research quality. What increased this phenomenon is the absence of sanctioning by many teachers that could play an interesting role in deterring academic dishonesty. The second observable issue is lack of autonomy that affected undergraduates' research quality negatively since promoting students' autonomous research could improve undergraduates' research quality. Thus, the current thesis addresses the following two research questions:

1. Does training students to conduct research honestly through extensive practice of research techniques (citation, paraphrasing, quoting, and referencing) as well as sanctioning plagiarists help students avoid unethical research conduct and improve research quality?
2. Does autonomy affect students' research quality positively?

4. Research Hypotheses

The first goal of this study was to discover the role of training students to use research techniques on the one hand, and sanctioning plagiarists, on the other hand, in improving the quality of students' research work; hence, *the first hypothesis is:*

H₁: If students are trained to use research techniques (citation, paraphrasing, quoting, and referencing) and sanctioned for plagiarism, their research quality will be high. In this context, *the null hypothesis* (H_{0-1}) maintains that no statistical variation exists between training students to use research techniques and plagiarists' sanctioning on the one hand, and avoiding plagiarism to reach a high research quality on the other hand. Hence, it is hypothesized that:

H₀₋₁: If students are trained to use research techniques, and sanctioned for plagiarism, they would not avoid plagiarism. Thus, their research quality will not be high.

Since the second goal of this study was to investigate whether autonomy affects the quality of students' research, *the second hypothesis is:*

H₂: If students work autonomously, the quality of their research will improve. In this respect, *the null hypothesis* (H_{0-2}) implies that there is no relationship between the students' autonomy and the quality of their research. Thus, it is hypothesized that:

H₀₋₂: If students work autonomously, the quality of their research will not improve.

5. Research Methodology and Design

5.1. Research Method

The current research work was conducted through *the mixed-method approach* by mixing the quantitative and the qualitative approach. Within the quantitative approach, *the experimental method* was used as well as *the students' questionnaire* and *the plagiarism test*, namely "Plagiarism Checker-X". Within the qualitative approach, *an interview* was conducted with the teachers of second-year students of English as an additional tool to explore their views about academic integrity and undergraduates' autonomy and research quality.

The aim behind the experimental study was to test the first research hypothesis by giving students research projects to be conducted after an extensive training about

the use of research techniques mainly citation, paraphrasing, quoting, and referencing. Following the *Solomon four groups design*, two groups were allocated randomly to two experimental groups whereas the other two groups formed the control ones. The Solomon four-group design was selected to eliminate the effect of the pre-test on the results of the post-test in the four groups and to avoid the impact of the pre-test on the experiment. The aim of this design, which is the most objective experimental design, was to ensure that the change in the experimental group was really due to the effectiveness of the experiment. Accordingly, a control group and an experimental group did not receive the pre-test. The experimental group received a treatment by training them to use research techniques. The three control groups were comparison groups that aimed at comparing the post-test results with those of the experimental group.

As indicated by Whitney and Feldt, questionnaires could be used to test a hypothesis (1973, p. 365). Since ‘autonomy’ is a qualitative variable that could not be manipulated and measured, the second hypothesis cannot be tested through experimentation; hence, a questionnaire was administered to test it. To ensure validity, results from experimentation were corroborated with those of the students’ questionnaire, the plagiarism test, and the teachers’ interview.

5.2. Population of the Study

The sample of this study was chosen randomly from the whole population of second-year students at the Department of English, University of 8 Mai 1945 (Guelma). Second-year students were selected as a population of the study because of their level which is more advanced than first-year students concerning mainly vocabulary, grammar and academic writing. Besides, second-year syllabus of *research methodology* should cover citation styles, research methods and tools unlike third-year students who

study how to write the research proposal and research papers. In this respect, experimental groups received extensive training about citation styles whereas control ones were taught only theoretical issues concerning the APA and MLA writing styles.

As indicated in Krejcie and Morgan's sampling table, a representative sample must include at least one hundred and three (103) students when the whole population is composed of one hundred thirty-seven (137) students (1970, as cited in Cohen, Manion & Morrison, 2000, p. 94). Hence, one hundred and three (103) students responded to the questionnaire. Following the Solomon four-group design, four groups were chosen randomly from second-year students' population that consists of five groups. Hence, our sample of the experiment includes one hundred and seven (107) students who are enrolled in four groups.

5.3. Research Tools

The students' questionnaire was administered in the exploratory phase of the experiment to provide introductory information about the students' knowledge of research skills and techniques and the quality of their research as well as autonomy and plagiarism in language learning. The aim behind the questionnaire is to test the second hypothesis that proposes the improvement of research quality through autonomy. An interview was conducted with teachers to ensure the validity of the responses given by students. Due to possible subjectivity and bias in the questionnaires' responses, a *plagiarism test* was administered to check the students' integrity in research.

The target sample was put under observation through the experimental method to prove causation between the two variables: training students to use research techniques and plagiarism avoidance as well as high-quality research. This required the administration of a pre-test to ensure the equivalence of the groups concerning academic writing and integrity and a post-test to point out the positive change in the

experimental group's academic writing and honesty. To assess the students' academic writing and integrity, the Generic Rubric that was designed by Amanda French (2009, as cited in Burke & Jackie, 2010, p. 58) was applied in both the pre-test and the post-test because it takes into account citation, paraphrasing and referencing while assessing writing.

6. Structure of the Thesis

The present thesis is divided into a general introduction, six chapters, and a general conclusion. Chapter one covers '*Undergraduate Research Quality*'. It starts with the definitions and significance of research as well as the definitions of the research question, the hypothesis, and the variables. Then, it proceeds to types and approaches of research as well as the characteristics of sound qualitative and quantitative research. Additionally, it provides insights into the research methods and ethics. Later, it sheds light on teachers' research and students' research. Next, undergraduate research is defined and its quality is investigated. More importantly, training students to conduct research autonomously is explored especially through the Research Skill Development Framework.

Chapter two sheds light on '*Academic Integrity versus plagiarism in the Internet Age*'. Academic integrity is differentiated from academic dishonesty. Then, the history of plagiarism as well as intellectual property is reviewed. Moreover, plagiarism definitions are explored. Additionally, common knowledge is distinguished from plagiarism. Besides, plagiarism forms, types, and causes, are explained. Furthermore, the prevalence of plagiarism in higher education is tackled as well as its effects on students' career. Also, plagiarism detection instruments and models are introduced. After that, the influence of the Internet on academic integrity is reported. Finally, some

guidelines as well as strategies and techniques of preserving academic integrity are explored.

Chapter three investigates '*Autonomous Learning*', an overview of the history and origin of autonomy is introduced by tackling its philosophical perspectives as well as its theoretical framework. Autonomy is defined and its relationship with active and independent learning is discussed. More importantly, the concept of autonomy as a multidimensional concept is explained, and individual autonomy is differentiated from collaborative autonomy. Autonomy in the classroom is compared to autonomy beyond the classroom. Additionally, the degrees and the types of autonomy in addition to approaches to autonomy are explained. The characteristics of the autonomous learner, especially self-monitoring, self-determination, self-assessment, self-confidence and self-regulation are introduced. Factors that could promote students' autonomy are investigated and the stages for its development. Finally, issues related to autonomy as a measurable variable are introduced as well as autonomy models.

Chapter four explains the '*Experimental and Field Investigation*'. It probes the aims and the population of the experiment in addition to the research hypotheses. Furthermore, it illustrates the content of the experiment and explains its design. It also presents the aims, the description, and the administration of the students' questionnaires, the teachers' interview as well as the plagiarism test (Plagiarism Checker-X). Eventually, it elucidates the content of the pre-test and the post-test and reports the findings from piloting both the questionnaire and the interview.

Chapter five is entitled '*Data Analysis and Interpretation*'. It introduces coding and analysis of both quantitative and qualitative data driven from the students' questionnaires and the teachers' interview. It also analyses numerical data from the plagiarism test, the pre-test, and the post-test. In addition, it tackles the measurement of

the standard deviation and the t-test to prove the effectiveness of the experiment. Furthermore, it interprets the findings in the light of the research questions and hypotheses.

Chapter six '*Pedagogical Implications*' includes some practical pedagogical implications and recommendations for deterring plagiarism in the university of 8 Mai 1945, Guelma. It highlights ways of promoting the students' autonomy and active learning. The chapter also draws students' attention towards a checklist for self-assessment of their academic writing and another checklist of self-assessment of their autonomy. It also provides teachers with sample activities in research methodology and an example of lesson plan in research methodology. Additionally, the chapter specifies both teachers and students' roles in higher education. Finally, the chapter points out the limitations of the study.

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Chapter One

Undergraduate Research Quality

“As a student researcher, field research moves you away from a collaborative class environment to a more isolated and autonomous work space” (Wang & Park, 2016, p. 160).

Introduction

Writing academic research is a complicated task for undergraduates in which research outputs or activities must be guided by teachers to lead to effective outcomes concerning written assignments of students in all the modules. Interestingly, teachers and students are expected to work collaboratively to make the research process successful. What matters most is the perception of the student as a researcher and an active participant in the learning process. This encompasses raising students' quality of academic research.

As indicated in the quotation stated at the beginning of this chapter, students could move from the stage of guided research and dependence on the teacher to the stage of autonomous research which is based on self-guidance, self-direction and self-assessment. Within this scope, the current chapter defines research and research hypothesis and variables. Then, it tackles types, aims, methods and tools of research as well as ways of data collection. After that, it studies the characteristics of sound qualitative and quantitative research and provides insights into generalizability and replicability of research. Later, it sheds light on the scope and the importance of research ethics, teachers' research and students' research. Next, the chapter discusses undergraduate research by exploring its quality, characteristics and setbacks. Finally, it provides language students with interesting facts about training them to conduct research autonomously especially through the Research Skill Development Framework (Willison & O'Regan, 2016).

1.1. Definition and Significance of Research

There is no exact definition of research; scholars provided different views concerning its nature. Hence, various definitions of the term, ordered chronologically, are introduced and discussed. Slesinger and Stephenson (1930, as cited in Kothari, 2004, p. 1) defined research as “the manipulation of things, concepts or symbols for the purpose of generalising to extend, correct or verify knowledge, whether that knowledge aids in the construction of theory or in the practice of an art”. This definition implies that research is controlling something in order to make generalizations of the results. Here, the aim behind research is to add new information or to check the validity of the existing knowledge.

Hillway considered research as “a method of study by which, through the careful and exhaustive investigation of all the ascertainable evidence bearing upon a definable problem, we reach a solution to that problem” (1964, as cited in Connaway & Powell, 2010, pp. 1-2). This entails that research is conducted to solve an exact ‘problem’ by giving a valid proof/justification. Moreover, Kerlinger (1973, as cited in Basford & Selvin, 2003, p. 286) defined research as “a systematic, controlled, empirical, and critical investigation of hypothetical propositions about the presumed relationships among natural phenomena”. It is pointed out from this definition that research is conducted to test a hypothesis through planned steps.

Mouly (1978, as cited in Connaway & Powell, 2010, p. 2) proclaimed that research is “the process of arriving at dependable solutions to problems through the planned and systematic collection, analysis and interpretation of data”. He agreed with Hillway that research aims at solving a problem. Mouly (1978, as cited in Connaway & Powell, 2010, p. 2) also insisted that research is conducted through a specific methodology of gathering, analysing and interpreting data.

Burns and Grove argued that “the root meaning of the word research is to search again or to examine carefully. More specifically, research is diligent, systematic inquiry or investigation to validate old knowledge and generate new knowledge” (1987, as cited in Basford & Selvin, 2003, p. 286). They discussed the literal meaning of research which is to search repeatedly in order to find the truth. Also, they described research as an organized inquiry that has two different aims: checking old information and discovering new one. It is noticed that their idea is similar to that of Slesinger and Stephenson.

Parahoo uphold that research is “the study of phenomena by rigorous and systematic collection and analysis of data [and it is] a private enterprise made public for the purpose of exposing it to others, to allow for replication, verification or falsification” (1997, as cited in Basford & Selvin, 2003, p. 286). What is new in this definition is that the findings from research should be published to allow for replication and validation. Here the word ‘replication’ implies to do the same research again to confirm the validity of the results.

Coombes asserted that research is “simply a method for investigating and collecting information” (2001, as cited in Kasi, 2009, p. 33). In this context, it is observed that research refers to ‘investigating’ and gathering data. In contrast, Goddard and Melville (2001, p. 1) concurred that “research is not just a process of gathering information”. Instead, they considered it as “answering unanswered questions or creating that which does not currently exist”. Thus, Goddard and Melville acknowledged the importance of uncovering hidden facts and discovering new information.

Mackey and Gass (2005, p. 1) pointed out that “research is a way of finding out answers to questions”. Similarly, Blaxter, Hughes and Tight approved that research is

“a systematic investigation to find answers to a problem” (2006, p. 62). In this respect, research starts with a problem that is transformed into a question. Then, research aims at answering the question. Within this scope, the answers to the research question represent the solution to the problem under investigation. Besides, Kumar defined research as “an intensive and purposeful search for knowledge and understanding of social and physical phenomena. Research is a scientific activity undertaken to establish something, a fact, a theory, a principle or an application, it is an academic activity” (2008, p. 1). This definition implies that doing research is not an aimless task; it is rather a deliberate effort to reach a specific objective. Kumar affirmed that research can also be defined as “a scientific and systematic search for pertinent information on a specific topic” (2008, p. 1). Here, the researcher follows some steps to find information related to the topic of inquiry.

Furthermore, Redman and Mory (2009, as cited in Kothari, 2004, p. 1) considered research as “a systematized effort to gain new knowledge”. So, they related research only to discovery. However, there is the second role of research which is validating old knowledge. R. Rubin, A. Rubin and Haridakis (2010, p. 197) maintained that “[r]esearch is an objective, systematic, empirical, and cumulative process by which we seek to solve theoretical and applied problems”. This denotes that research problems may be related to theory or to the real world. According to Hudley, Dickter, and Franz (2017, p. xi), research is “an inquiry or investigation that makes an original, intellectual, or creative contribution to a discipline, area, question, challenge, or theme”. This implies that the researcher should make an original contribution by introducing new outcomes. In 2017, the *Merriam-Webster Online Dictionary* defined the word “research” as:

[A] studious inquiry or examination; *especially*: investigation or experimentation aimed at the discovery and interpretation of facts, revision of accepted theories or laws in the light of new facts, or practical application of such new or revised theories or laws.

As indicated in the dictionary, research is either experimental or non-experimental; it is either theoretical which is to get something new or to check the validity of something old or practical by applying what researchers have found. As indicated in the above definitions, research needs to be planned, that is to say there are some methodological steps researchers have to follow. Moreover, they have to choose a research method which may help them solve the problem either by discovering hidden matters or verifying existing knowledge. This implies that research is either “hypothesis-testing” or “hypothesis-generating”.

Concerning the significance of educational research, Johnson claimed that it does not lie just in answering questions like “what is the best way to learn a language?” or “which is the most effective method of L2 teaching?” Instead, the aim of research is to get insight into some “interrelated factors” in the learning process responsible for increasing “progress” (as cited in McKay, 2009, p. 1). Consequently, the importance of educational research lies in raising our awareness of the learning process and the features behind success.

1.2. Research Problem and Question

Any inquiry should start with a problematic situation driven by ‘wonder’ and “inquisitiveness about behaviour and phenomena”. Hence, it is ‘self-initiated research’ (Marais & Mouton, 1988, p. 35). Hence, the researcher starts research when s/he is eager to know, driven by curiosity. The research problem represents ‘the topic’ of inquiry (Connaway & Powell, 2010, p. 26). In other words, it is “what is to be

investigated” (Marais & Mouton, 1988, p. 37). In this respect, Kothari (2004, p. 24) defined a research problem as “some difficulty which a researcher experiences in the context of either a theoretical or practical situation and wants to obtain a solution”. This stresses the idea that the aim behind research is solving a problem either in relation to a theory or to the real world. So, problems are prevalent in different contexts.

Furthermore, the problem has to be limited in scope so that it could be translated into a question. There are two types of questions: *open* questions and *closed* ones as indicated by Jonker and Pennink when they indicated that “an open question takes a broad look at the problem”; therefore, it can be ambiguous but it often leads to a “well-defined” one (2010, p. 11). Therefore, the research question would better be closed, “narrow” and “constrained” (Mackey & Gass, 2005, p. 16). Obviously, in the first steps of investigation, the researcher does not have an exact view of the problem; s/he ignores its surrounding factors and causes. Through a general overview of the topic, s/he could find out preliminary suggestions which may help him/her define the problem and point out the closed question. This could be achieved through the *literature review* by surveying information about the theme of research so that shortcomings in previous studies are indicated (Kothari, 2004, p. 28).

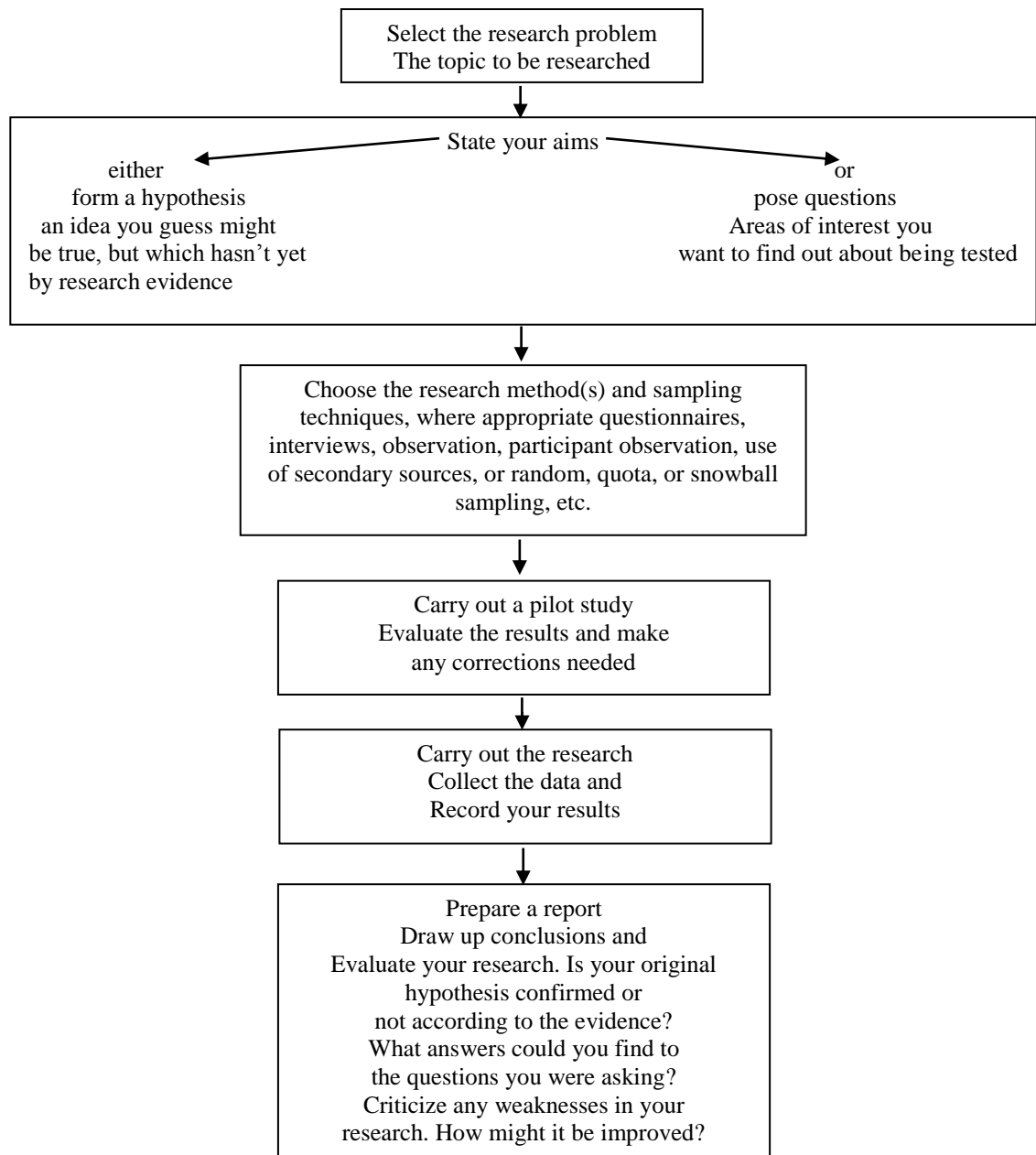
However, not all the topics could be investigated in a practical and empirical manner. This is labelled research ‘*feasibility*’ or ‘*practicability*’ which indicates the possibility to implement research and gather data (Kothari, 2004, p. 26; Mackey & Gass, 2005, p. 19). A feasible research is a practical one that represents a topic that could be realized in the real world. As a general comment, research begins with the selection of the problem/phenomenon or the theme/topic which is feasible (practical). After that, the researcher may have a global view about the problem with no exact proposition (open question). Then, s/he may relate the problem with an assumed

practical solution in the form of a closed question, which at the end leads to hypothesis formulation. Then, the hypothesis will be tested through logical selection of a research method.

The research process must have a design. In 1956, Lindquist defined research design as “the plan, structure and strategy of investigation conceived so as to obtain answer to research question” (as cited in Broota, 1989, p. 3). It is when the researcher tries to answer questions related to the investigation using “what, where, when, how much, by what means” (Kothari, 2004, p. 31). More interestingly, the research design forms ‘a plan in advance’ which could clarify the research objectives (Kothari, 2004, p. 32). Kothari further explained the components of research design as follows:

1. It is a plan that specifies the sources and types of information relevant to the research problem.
2. It is a strategy specifying which approach will be used for gathering and analysing data.
3. It also includes the time and cost budgets since most studies are done under these two constraints. (2004, p. 32)

As indicated in the previous quotation, a research design is ‘a plan’ that identifies the references. It is also ‘a strategy’ about data collection techniques. Besides, it is a specification of ‘the time’ and financial resources. Hence, the design is the methodological steps which are indicated in the diagram below:

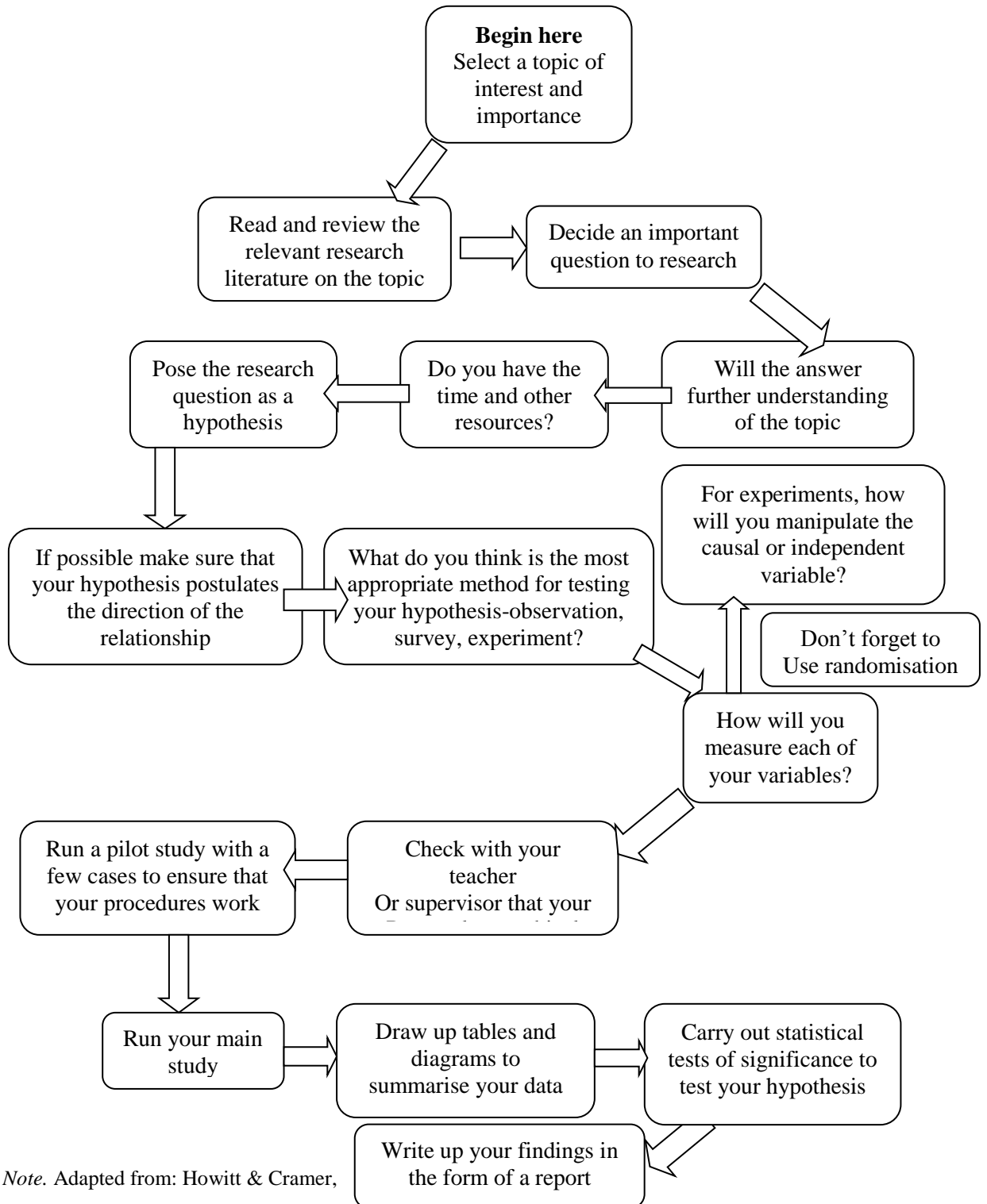
Figure 1.1. Stages of Research

Note. Adapted from: Browne, 2011, p. 77.

In the steps that are presented in the previous diagram, Browne represented the first step that is choosing a topic. He differentiated between two aims of research in the second step: either to formulate a hypothesis or to make research questions. Then, the third step is to specify the research method, sample design and research tools. After that, the fourth step is a pilot study that is necessary to refine wording. The fifth step is conducting research method and data collection. The sixth step is data analysis and

interpretation. The final step is writing the report where the hypothesis is confirmed or rejected and the research questions are answered. Nearly the same steps are introduced by Howitt and Cramer in the following figure:

Figure 1.2. Major Steps in Planning Research



Note. Adapted from: Howitt & Cramer, 2000, p. 7.

As illustrated in Figure 1.2., research design includes the selection of the theme and the literature review. After that, the research question is defined and the hypothesis is formulated. Next, the research method is specified. Howitt and Cramer have focused on the experimental method, the randomization of the sample and piloting. Finally, data is shown in graphic forms and statistics got from tests are reported at the end of research.

1.3. Research Hypotheses and Variables

Quantitative research often tests a hypothesis that consists of two variables. Gay defined the hypothesis as a “tentative explanation for certain behaviours, phenomena, or events which have occurred or will occur. It states your expectations concerning the relationship between the variables in your research problem” (1976, as cited in Adanza, 1995, p. 13). This implies that the research attempts to interpret the relationship between variables in relation to a problematic issue. Moreover, McGuigan defined it as “a testable statement of a potential relationship between two or more variables” (1978, as cited in Adanza, 1995, p. 13). This denotes that the relationship is not sure; it is just a prediction whose falsity or truthfulness should be tested through investigation. Similarly, Mackey and Gass explained that a hypothesis is ‘a type of prediction’; however, they remarked that it is related to ‘experimental studies’ (2005, p. 100). Thus, hypothesizing is related to experimentation in order to test the causal relationship between variables.

Furthermore, the research hypothesis expects a relation between two variables (Howitt & Cramer, 2000, p. 3). These two variables are the *independent* variable (x) and the *dependent* one (y). As indicated by Hoy, the form of the hypothesis is “if x, then y” (2010, p. 32) or “x leads to y” (2010, p. 33). As stated before, the hypothesis is not sure, it is probable, as claimed by Howitt and Cramer (2000, p. 3) the “hypothesis *may*

describe what the researcher expects the relationship between the variables to be”. Eventually, the hypothesis is just the researchers’ own supposition of the relationship between two variables. It is a temporary explanation which will be approved or disapproved through investigation.

Two types of hypotheses exist: the research hypothesis (H_1) which will be tested and the null hypothesis (H_0) which is “a neutral statement used as a basis for testing”. The null hypothesis entails that the two variables are not related. The research findings could affirm or “reject the null hypothesis” (Mackey & Gass, 2005, p. 100). Howitt and Cramer indicated that the two words ‘the hypothesis’ and ‘the alternative hypothesis’ are used interchangeably (2000, p. 3). The two hypotheses are contradictory; hence, the researcher has to confirm one and reject the other (Howitt & Cramer, 2000, p. 5).

Howitt and Cramer maintained that “a variable is anything that varies and can be measured”. They added that it “is any characteristic that varies in the sense of having more than one *value*” (2000, p. 3). A variable is also defined by Hoy (2010, p. 30) as “a property that takes on different values” in different contexts. He further explained that the value is “a number that represents either the magnitude of the variable (e.g. an individual’s height) or a category of the variable” (e.g. male or female)” (2010, p. 30). It is concluded that a variable may have a changeable value or more than one value. Hence, it can be measured or manipulated in experimental research.

Moreover, variables are classified in terms of ‘variation’ as ‘categorical’ or ‘continuous’. Categorical variables are variables that vary in property by identifying “two or more distinct categories” for example: internal, external (Hoy, 2010, p. 31). However, continuous variables are variables which change in value through ‘an ordered continuum’ for instance: age (Hoy, 2010, p. 32). Kerlinger divided variables according to their ‘function’ into: independent and dependent variables. The independent variable

is the ‘presumed cause’ whereas the dependent variable is ‘the presumed effect’ (1986, as cited in Hoy, 2010, p. 32). Therefore, both are not sure, they are assumed variables. Mackey and Gass confirmed this idea by explaining that:

[T]here are two main variable types: independent and dependent. The independent variable is the one that we believe may ‘cause’ the results; the dependent variable is the one we measure to see the effects the independent variable has on it. (2005, p. 103)

Thus, measurement is related to the *dependent* variable which represents the effect of manipulation and control. However, the *independent* variable is what leads to the expected change. Overall, each research problem can be transformed into a research question and often into a research hypothesis. The latter shows the relationship between the independent and the dependent variables (cause-effect relationship). This relationship is not sure; it will be tested through conducting research to prove the existence or the absence of causation.

1.4. Types of Research: Basic vs. Applied Research

According to Connaway and Powell, *basic* research is also called “pure, theoretical, or scientific” and it seeks “new knowledge” (2010, p. 2). So, basic (fundamental) research is “gathering knowledge for knowledge’s sake” (Young, 1966, as cited in Kothari, 2004, p. 3); for example knowing ‘human behaviour’ whereas *applied* research is related to action that aims at changing something and finding a solution to a problem for instance ‘a social problem’ (Kothari, 2004, p. 3). In this context, Connaway and Powell (2010, p. 2) agreed with Kothari that applied research looks for solutions for real-contexts problems. In spite of that, one cannot separate basic research from applied one because “basic research often leads to practical application, while applied research frequently acts as a foundation for subsequent theoretical or

basic research” (Connaway & Powell, 2010, p. 2). Moreover, Connaway and Powell maintained that basic research is characterized by four features: first, ‘universality’ because of the generalization of findings. Second, ‘replication’ since anyone could replicate or conduct the study again. Third, ‘control’ which implies ‘manipulating’ variables. The final factor is ‘measurement’ since there are statistics (2010, p. 23).

1.5. Approaches to Research: Quantitative vs. Qualitative Research

Qualitative research is defined by Mackey and Gass (2005, p. 162) as “research that is based on descriptive data that does not make (regular) use of statistical procedures”. To study naturalistic phenomena, four prominent designs of qualitative research could be followed: *Ethnographic research*, *the grounded theory*, *phenomenology*, and *ex post facto research*. The first design ‘*ethnographic research*’ is the most famous design of qualitative and naturalistic research (Mackey and Gass, 2005, p. 167; Creswell, as cited in Sabornie, 2006, p. 3). In this type of research, the researcher is a complete observer and participant who lives in society in order to understand the culture of the group ‘from the inside’. Observation to take ‘field notes’ as well as interviews are the most common tools to get information about the group. However, this method is complicated and needs ‘time commitment’ (Sabornie, 2006, p. 4).

The second design ‘*grounded theory*’ goes back in history to the work of the sociologists Glaser and Strauss in 1967 (as cited in Sabornie, 2006, p. 4). It seeks an exact explanation of the phenomenon by continuous collection of data and refinement whenever it is needed. Hence, it is based on ‘reconstruction’ that aims at generating a new theory that describes the phenomenon. Grounded theory is based on interviewing and observing people who are part of the phenomenon (Sabornie, 2006, p. 4). According to Sabornie (2006, p. 5), data analysis in the grounded theory starts with

‘open coding’ where ‘initial data’ is transformed into ‘categories and subcategories’. Then, it proceeds to ‘axial coding’ when ‘new categories’ are formed. Finally, it ends with ‘selective coding’ where the researcher generates a new hypothesis by mixing categories and subcategories. The researcher ends with a report that depicts the phenomenon.

The third design ‘*phenomenology*’ indicates that the phenomenologist “describes subjective feelings and emotions of participants who have interacted in some manner with the same phenomenon. The actual personal reactions expressed by participants are the data source” (Sabornie, 2006, p. 7). In other words, the researcher studies the effect of a phenomenon on people’s behaviour. According to Sabornie (2006, p. 7), many tools are used, for instance the researcher relies on interviews “before, during, and after contact with the phenomenon”.

The fourth design ‘*ex post facto research*’ is also called ‘causal comparative research’. It means literally ‘from after the fact’. In this type of research, the researcher studies the effects in order to know the causes (Goddard & Melville, 2001, p. 9). The absence of the manipulation of the independent variable is due to the fact that the phenomenon has already occurred (Kerlinger, 1970, as cited in Cohen et al., 2000, p. 205).

According to Jonker and Pennink, quantitative research is considered as a scientific and objective investigation while qualitative research is a ‘messing around’ and subjective inquiry (2010, p. 38). Concerning the use of quantitative and qualitative research, the former is theory-building of past experiences whereas the latter is theory-testing through proving or disproving a hypothesis (Newman & Benz, 1998, p. 3). The following table by Burns (1994, as cited in Burns, 1999, p. 23) provides the difference between quantitative and qualitative research as follows:

Table 1.1

A Comparison Between Quantitative and Qualitative Research

Quantitative research	Qualitative research
-values objectivity through the discovery of facts or truths.	-encompasses socially subjective and relative interpretations of phenomena.
-tests pre-established hypotheses through the collection and measurement of data.	-draws on data to develop and refine hypotheses.
-establishes cause and effect relationships.	-interprets human behaviour from participants' perspectives.
-intervenes in the research context and controls variables.	-explores naturalistic cultural settings without controlling variables.
-reduces data to measurable quantities.	-gathers 'rich' data and interprets them through 'thick' description and analysis.
-ensures reliability through the consistency and replicability of methods.	-ensures validity through multiple data sources.
-generalises beyond the research population.	-does not seek to generalise beyond the research context.
-focuses on research outcomes that confirm or disconfirm hypotheses.	-focuses on the processes as well as the outcomes of research.

Adapted from: Burns, 1994, as cited in Burns, 1999, p. 23.

As indicated in Table 1.1, quantitative research provides new information through objective methods and techniques that aim at hypothesis confirmation or rejection. It proves causation by manipulating independent variables mainly through experimentation. Replication is possible which ensures generalisation of results. However, qualitative research is restricted by the absence of experimentation and the lack of control of phenomena. Hence, it is based on description and "interpretation" of facts. Unlike quantitative research, qualitative research is hypothesis-generating and confirmability could be reached through triangulation (two or more sources of data). Also, both the process/stages of research and the findings are important. Features of quantitative and qualitative research are explained as follows:

Table 1.2

Features of Quantitative and Qualitative Research

Quantitative research	Qualitative research
<i>Assumptions about reality</i> Reality is single; it can be broken down and parts studied.	Reality is multiple; it can only be studied holistically.
<i>Role of researcher</i> The researcher and object of inquiry are separate; hence one can look at reality objectively. The researcher's role is to observe and measure. The researcher exerts control over the variables.	The researcher and what is researched are interdependent. The researcher's role is to become part of what is being studied. The researcher does not intervene.
<i>Purpose of research</i> The purpose is to generalize, to predict, and to posit causal relationships.	The purpose is to contextualize and interpret.
<i>Research questions</i> The research question is arrived at deductively. The researcher starts with a hypothesis.	The research question is arrived at inductively. The researcher observes and formulates questions.
<i>Research design</i> The researcher has a hypothesis and set methodology. The object is to summarize data in numerical indices.,	The research design evolves over time Once the data is gathered, the researcher looks for patterns.
<i>Length of study</i> The study can involve a fairly short time commitment.	The study can involve a very long time commitment.
<i>Typical data</i> There is a large, random sample. Numerical indices involving tests or responses to surveys are often used	There is a purposeful, limited number of participants. Field notes, interviews, and written documents can all be used.
<i>Data analysis</i> There is statistical analysis.	There is an interpretive analysis of the data and categorization of the data.
Research report Technical language is used.	Descriptive language is used.

Adapted from: McKay, 2006, p. 7.

In Table 1.2, McKay thinks that reality is studied in quantitative research as one entity i.e. as a whole; whereas, in qualitative research it is divided into its constituting parts. The role of the researcher in quantitative research is to intervene by manipulating the independent variable(s). He can get objective information because s/he is separated from the subject of inquiry; however, in qualitative research the researcher cannot detach himself /herself from the investigated phenomenon, which leads to subjectivity.

Concerning the goal of research, quantitative findings can be generalized to the whole population while qualitative ones ought not to be so because they are specific and interpreted in relation to unique circumstances. Besides, the steps of quantitative enquiry are pre-established by making a hypothesis that needs to be tested but those of qualitative enquiry spring from the situation and data is gradually accumulated; then, it is divided into patterns and categories to simplify the analytic process. Moreover, quantitative investigation is not as time-consuming as qualitative one. In addition, quantitative research deals with a large random sample because data is structured and quantitative so that data analysis is easy; whereas, qualitative research which yields unstructured data should deal with a small sample because it is more complicated to analyse, narrate and interpret data for each participant. This is due to the fact that data in quantitative research is technical dealing with numbers, codes and percentages; however, it is narrative in qualitative research.

Blaxter, Hughes and Tight discussed the 'similarities' between quantitative and qualitative research. They argued that quantitative research may be hypothesis-generating while qualitative research could be hypothesis-testing. Moreover, qualitative research may include numbers (numerical data); whereas, quantitative research is sometimes qualitative when researchers use 'open-ended questions' (2006, p. 65).

Consequently, both the quantitative and the qualitative approaches are interrelated; there is no clear cut between them. Conducting qualitative research may include numerical data; simultaneously, undertaking quantitative research could provide the researcher with descriptive and narrative data. This depends on the nature of research question and context.

1.6. Characteristics of Sound Quantitative and Qualitative Research

Sound quantitative research is characterized by two main features: *validity* and *reliability*. The former is “the degree to which the researcher has measured what they have set out to measure” (Hopkins, 2008, p. 139). So, validity exists when the test measures what it expected to measure. In addition, validity has two main types: Internal validity and external validity. The former is “sound causal relationship” (McCormick & James, 1989, as cited in Hopkins, 2008, p. 140); it is to see whether the research findings have really indicated that the cause really leads to the effect (MacKey & Gass, 2005, p. 109). The latter is defined in the quotation below:

With external validity, we are concerned with the generalizability of our findings, or in other words, the extent to which the findings of the study are relevant not only to the research population, but also to the wider population of language learners. (MacKey & Gass, 2005, p. 119)

It is noticed from the previous quotation that external validity is the ability to generalize the findings to the whole population. However, external validity necessitates internal validity which is to prove causation between variables. As confirmed by MacKey and Gass “a prerequisite of external validity is internal validity” (2005, p. 119). According to MacKey and Gass (2005, pp. 107-108), other types of validity include: firstly, “construct validity” which is reached by conducting “multiple estimates” of variables that represent some abstract concepts that are hard to measure like ‘aptitude’. Secondly, ‘content validity’ is when the researcher’s measurement contains all the aspects of the phenomenon we want to discover. Thirdly, ‘face validity’ that is the participants’ ‘familiarity with the instrument’. Face validity is connected to content validity and it leads to it. Fourthly, ‘criterion related validity’ denotes comparing the tests used in a research with other well-recognized tests to ensure that the

utilized tests are reliable measuring devices. If they are alike, the test has criterion related validity.

Reliability is the ‘consistency’ of the test which indicates that the test is administered again it would lead to the same results (MacKey & Gass, 2005, p. 128). Within this scope, McCormick and James argued that:

Basically reliability is concerned with consistency in the production of results and refers to the requirement that...another researcher, or the same researcher on the same occasion, should be able to replicate the same piece of research and achieve comparable evidence and results. (as cited in Hopkins, 2008, p. 141)

As indicated in the previous quotation, reliability is the validity of results reached through replication. It denotes that conducting research again about the same topic would inevitably lead to the same results. Reliability is divided into two types: *internal* reliability and *external* reliability. The former indicates *internal consistency* while the latter refers to *external consistency*. *Internal consistency* is achieved when testing items yield the same results. An effective method to do so is ‘the split-half technique’ in which correlation is counted between scores of two halves of items (Kumar, 2008, pp. 183-184). *External consistency* is reached through ‘test-retest’. This entails that the test is done again to see whether the same results are attained. Besides, the researcher may use ‘parallel forms’ of the test to check the results by designing two identical instruments (Kumar, 2008, pp. 182-183).

Qualitative research should have three characteristics: *credibility*, *transferability* and *dependability*. First, credibility is about the truthfulness of the findings (Pitney & Parker, 2009, p. 63). Second, transferability is “the ability to apply the findings of a study to similar environments” (Pitney & Parker, 2009, p. 63). Transferability can be

enhanced by providing what is often referred to as *thick description* which is providing details so that the readers can decide for themselves if the results are transferable to their own contexts. Thick description is also about ‘an emic perspective’ by giving “interpretations and other social and/or cultural information” (Davis, 1995, p. 434). Finally, concerning dependability, Stringer (2004) stated that it is reached using “an inquiry audit” about the “details of the research process” (as cited in Pitney & Parker, 2009, p. 68).

What matters most is that replication/replicability is related to quantitative research; however, confirmability is related to qualitative research (Mackey & Gass, 2005, p. 352). In this respect, Mackey and Gass proclaimed that replication is to “repeat the results of a particular study” (2005, p. 21). Furthermore, Barber pointed out that replication of past findings is conducted through researchers’ new perspectives concerning “sampling, measurement and statistical analysis” (1976, as cited in Marais & Mouton, 1988, p. 96). This implies that replication is to repeat the study again with new methods and tools where the aim is confirmability. Furthermore, Marais and Mouton advised that replication should be ‘constructive’ (1988, p. 96). As indicated by Mackey and Gass, replication is very important because confirmability leads to validity. The latter, in turn, leads to results’ generalization (Mackey & Gass, 2005, p. 21). However, it was further proclaimed by Mackey and Gass (2005, p. 22) that replication is affected negatively by the “individual” characteristics of the population of study.

Confirmability in qualitative research aims at testing the findings in order to approve that the results are accurate/valid through ‘triangulation’. The latter is the use of ‘two or more’ methods or tools in gathering data. Mackey and Gass (2005, p. 181) described it as “the use of multiple, independent methods” when collecting information so that the results from each method are compared to reach confirmation.

1.7. Research Methods

Students should know research methods and techniques and they should get ‘opportunities to practice’ them (Brew, 2006, as cited in Kasi, 2009, p. 14). Two main methods are tackled: the experimental and the descriptive method.

1.7.1. The Experimental and the Quasi-experimental Method

What distinguishes experimental from quasi-experimental research is the ‘randomization’ of the sample. When a sample is chosen randomly, the method is totally experimental. However, when the sample is not selected randomly, the method is ‘quasi-experimental’ or not completely experimental (MacKey & Gass, 2005, p. 146). Furthermore, the experiment is an intervention to change a situation through manipulation and controlling of all the types of variables that may affect the dependent variable. The aim is to prove causation, the independent variable is the ‘assumed cause’ while the dependent variable is ‘the assumed effect’. At least two groups are needed: the experimental group which receives the experiment and the control group that does not receive the treatment (Howitt & Cramer, 2000, pp. 9-10).

Du ploy (1995, p. 180) explained that in experimental design, a pre-test is administered before the experiment for the two groups to prove their equivalence. After the experiment, a post-test is needed to show that the experiment was effective since there is a change in the experimental group. However, the pre-test can affect the experiment negatively because of practice effects (test-retest). He (1995, p. 180) further claimed that to eliminate the effect of the pre-test on the post-test results the researcher would better follow the ‘Solomon four-group design’. The latter includes four groups: the first group is experimental. It receives a pre-test, an experiment and a post-test. The second group is a control group that has a pre-test and a post-test but without an experiment. The third group is a control group that has an experiment and a post-test.

The fourth group receives only a post-test. This is to ensure that the results are due to the experiment not the pre-test. However, data got from this design is complex to analyze and costs much money. (Du ploy, 1995, p. 180).

1.7.2. The Descriptive Method

The descriptive method is “the in-depth description of a specific individual, situation, group, organization, tribe, sub-culture, interaction or social object” (Marais & Mouton, 1988, p. 43). According to Best, the descriptive method deals with:

[C]onditions or relationships that exist; practices that prevail; beliefs, points of views, or attitudes that are held; processes that are going on; effects that are being felt; or trends that are developing. At times, descriptive research is concerned with how *what is* or *what exists* is related to some preceding event that which has influenced or affected a present condition or event. (1970, as cited in Cohen, Manion, & Morrison, 2000, p. 169)

From the previous quotation, the descriptive method helps the researcher to understand the bridge between the past and the present. It studies qualitative aspects such as behaviour. What is more is that the descriptive method is a qualitative method that is based mainly on ‘rich description’ since there is no statistics. Also, it studies phenomena in their ‘natural settings’ (MacKey & Gass, 2005, p. 164).

The number of informants in the descriptive method is too limited because it does not aim at ‘generalizability’ of findings. Here, research questions can be general. Eventually, the descriptive method could be hypothesis-generating (MacKey & Gass, 2005, p. 164). In contrast, the experimental method is a hypothesis-testing method whose findings could be generalized to the whole population.

There are two main types of descriptive research: ‘quantitative descriptive research’ and ‘qualitative descriptive research’ (Koul, 2009, p. 106). In this respect, it

is qualitative for example when ‘a case study’ is used but quantitative when a ‘structured questionnaire’ or ‘a closed quantitative interview’ are followed as tools of research. It is also quantitative when the coefficient of correlation is counted by following the correlational (associational) descriptive method whose objective is stated in the following quotation:

The goal of associational research is to determine whether a relationship exists between variables and, if so, the strength of that relationship. This is often tested statistically through correlations, which allow a researcher to determine how closely two variables (e.g., motivation and language ability) are related in a given population. (MacKey & Gass, 2005, p. 137)

As stated in the previous quotation, the correlational method is conducted to know to what extent a variable is related to another through statistics. Furthermore, the researcher cannot control variables in the correlational method because the relationship between them is not causal (McKey & Gass, 2005, p. 284). For instance, the researcher may count the correlation coefficient between “intelligence and scholastic achievement or age and political attitudes” (Marais & Mouton, 1988, p. 44). As cited by Jackson, “correlation doesn’t imply causation” (2014, p. 21). This implies that even when correlation is high we cannot affirm causation without experimentation.

Consequently, unlike the experimental method whose main goal is to prove causation or the causal relationship between the independent variable that is the assumed cause and the dependent variable which is the presumed effect, the descriptive method just discusses and explains the nature of phenomena and their possible causes. Also, each method has its own design, principles and tools. However, both methods often share the same tools; for example, the experimenter can rely on the case study, which is a descriptive tool, in the exploratory phase of his/her research.

1.7.3. The Mixed-method Approach versus ‘Multi-methodology’

According to Creswell (2003, p. 17), ‘mixing different methods’ dates back to 1959 when Campbell and Fiske studied the ‘validity of psychological traits’. Mixing methods is to combine the quantitative and the qualitative method (Jonker & Pennink, 2010, p. 92). For example, in a questionnaire we can formulate both structured/closed questions that yield quantitative data and unstructured/open questions that aim at collecting qualitative data. So, the two methods are mixed within a single study to complete each other and reach the research aim(s). Moreover, the concept of ‘mixed methods’ is distinguished from ‘multi-methodology’ when more than one method is conducted. For instance, administering a questionnaire and conducting an interview at the same time. In multi-method research, each method stands on its own; and the aim is corroboration of the results (Morse, 2003, p. 190). Within this scope, the concept of ‘triangulation’ emerged to indicate the utilization of multiple data sources (Creswell, 2003, p. 18).

1.8. Data Collection Tools

The researcher relies on several tools to get data related to research topic. The most common instruments that are introduced below are: questionnaires, interviews, case studies and observation.

1.8.1. Questionnaires

Brown (2001, as cited in MacKey & Gass, 2005, p. 92) explained that questionnaires are “any written instruments” which include “a series of questions or statements”. So, the questionnaire is usually a quantitative tool that includes closed questions. Conway (2006, p. 3) considered it as “an internal tool” since it uncovers informants’ inside personality. He also explained that it consists of “preplanned set of questions” in relation to a specific topic (2006, p. 3). Furthermore, Browne (2011, p.

59) defined the questionnaire as “a printed list of questions”. He further pointed out two types of questionnaires: questionnaires answered by the ‘respondents’ (self-completed questionnaires) and interviewed questionnaires.

Three types of questionnaires are differentiated: structured, semi-structured and unstructured questionnaires. Concerning the structured (closed) questionnaire Browne (2011, p. 59) labelled this type ‘the pre-coded’ questionnaire because of its ‘pre-set closed questions’ and list of ‘limited’ options. The questions are ‘pre-determined’ (Kothari, 2004, p. 101). In the semi-structured questionnaires, there are questions but no expected answers/choices. However, the same questions are asked to all informants. Furthermore, unstructured questionnaires imply that there is no wording, questions are not written. They are raised in context spontaneously. Besides, answers of participants are often recorded (Kothari, 2004, p. 101).

According to Richard and Lockhart, ‘surveys and questionnaires’ are reliable tools of data collection in relation to the teaching/learning process (1996, p. 10). The questionnaire is useful to get data about students especially in relation to qualitative variables. Babbie explained that ‘self-administered’ questionnaires provide researchers with large amounts of data in a short period of time and in a less expensive way. However, they are ‘artificial’ and lack ‘validity’ (2010, p. 304). In addition, Howitt and Cramer insisted that questionnaires are ‘less embarrassing’ due to anonymity. Also, the nature of multiple choice questions enables the researcher to analyze data easily (2000, p.12). MacKey and Gass agreed with Babbie that questionnaires are ‘more economical and practical’ than interviews (2005, p. 94). They added that questionnaires are ‘flexible’ because they include hard and soft data (2005, p. 96).

1.8.2. Interviews

The term interview comes from the French word ‘entre voir’ which means “to glimpse or to see each other” (Debasish & Das, 2009, p. 146). Mouly defined the interview as ‘a conversation’ that occurs between the interviewer and the interviewee (1970, as cited in Baraceros, 2000, p. 81). Moreover, Wiersman viewed the interview as “a data-collection procedure that involves “a face to face confrontation between the interviewer and a subject or a group of subjects” (1975, as cited in Baraceros, 2000, p. 146). Additionally, the interview is “a meeting for obtaining information by questioning a person or persons”. It is “a conversation between two or more people (the interviewer and the interviewee) where questions are asked by the interviewer to obtain information from the interviewee” (Debasish & Das, 2009, p. 146).

Interviews are divided into three types according to their structure: the structured interview, the semi-structured interview and the unstructured interview. In the structured interview the same questions are given to all informants, questions are written in the same form/wording. It is the ‘formal’ interview (Browne, 2011, p. 64). It is “asking question in a form and order prescribed”. This facilitates data analysis; however, it does not provide the researcher with deep insights into the respondents’ mind (Kothari, 2004, p. 98). Patton divided it into two types: the ‘standardized open-ended interview’ which is a structured interview without choices and the ‘closed-quantitative interview’ that has choices (1987, p. 117).

Concerning the semi-structured interview, the questions are not written completely but there is the topic for each question as a ‘guide’ to help the researcher formulate the questions in different wording. Therefore, Patton called it “the interview guide approach” (1987, p. 117). Here, questions’ wording changes from an informant to another about the same topic. This allows for ‘flexible’ questions and answers and more

richness of data. However, data analysis takes too much time and effort (Kothari, 2004, p. 98).

Browne considered the unstructured interview as ‘informal’ or ‘in-depth interview’ (2011, p. 64). It is based on informal conversation which allows for getting “in-depth” information because of greater ‘flexibility’. However, Kothari argued that this type is more suitable for exploratory rather than descriptive research (2004, p. 98). Concerning Patton’s classification of interview types (see *Appendix D*), what he labels ‘the informal conversation interview’ is ‘the unstructured interview’. In this type of interview, questions arise spontaneously from the situation because there is no wording or written from. The second type ‘the interview guide approach’ is ‘the semi-structured interview’ where the topic of each question represents *a guide* for the researcher that helps him/her formulate the interview questions. The last type, ‘the closed quantitative interview’, could be considered as ‘the structured interview’. However, there is a slight difference between ‘the standardized open-ended interview’ and ‘the closed quantitative interview’. The former includes open questions but the latter consists of closed questions with choices/options (Patton, 1987, pp. 116-117). In this respect, we think that the ‘the standardized open-ended interview’ in contrast to the ‘interview guide approach’ (which is semi-structured) is considered structured but in contrast to ‘the closed quantitative interview’ it is not so. Consequently, we can say that the ‘open-ended interview’ lies in between. It is neither 100% structured nor 100% semi-structured.

Concerning data yielded from these types of interviews, we think that the more open the questions are, the more substantial data is. For example, in the closed-quantitative interview, participants are totally restricted by the choices so that the interview loses its flexibility and substance; whereas, the interview-guide approach

makes data more flexible, substantial and 'natural'. However, substance of data leads to a complex and time-consuming analysis and interpretation.

Interviews have advantages as well as disadvantages. Concerning the most important advantages, interviews enable the researcher to deal with complex phenomena. Besides, they allow for observation of gestures and facial expression on the part of the researcher (Babbie, 2010, p. 302). In other respects, both interviewers and interviewees could ask for more 'clarification'. Additionally, respondents are motivated to answer researchers' questions (Howitt & Cramer, 2000, p. 12). Among the disadvantages there is 'response bias' because the researcher cannot know if the answer is truthful. Moreover, answers can be affected negatively by the personality of the researcher. Additionally, they are time-consuming especially with large samples, yet researchers often cannot have access to important persons (Kothari, 2004, p. 99). Howitt and Cramer confirmed the idea that interviews are time-consuming (2000, p. 12).

1.8.3. Case Studies

Nisbet and Watt defined a case study as "a specific instance that is frequently designed to illustrate a more general principle" (1984, as cited in Cohen et al., 2000, p. 181). Moreover, Yin defined the case study research method as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used" (2012, p. 4). However, Woodside considered Yin's definition as inadequate since "CSR [Case Study Research] is an inquiry that focuses on describing, understanding, predicting, and/or controlling the individual (i.e. process, animal, person, household, organization, group, industry, culture, or nationality)" (2010, p. 1). Creswell (1998) and Stake (1995) also considered the case

study as ‘an activity, a program, or event’ (as cited in Sabornie, 2006, p. 6). Furthermore, Woodside disagreed with Yin concerning the fact that CSR is related only to ‘real-life contexts’ because it is also suitable for studying historical events (2010, p. 2). Woodside also argued that the case study is not always qualitative; it can be quantitative through experimental design (2010, p.11). Besides, Sabornie declared that CSR opts for purposive sampling and relies on observation, interviews and ‘archival record examinations’ to collect data (2006, p. 6).

Concerning the types of case studies, Yin (1984, as cited in Cohen et al., 2000, p. 183) pointed out three types: firstly, *exploratory* cases which act as an introduction to a specific research method to get introductory information. It is conducted in the exploratory phase of any research method. Secondly, *descriptive cases* which are ‘narrative’ aiming at generating a theory. Thirdly, *explanatory cases* that help the researcher uncover ‘hidden facts’ by testing a theory.

Stenhouse divided case studies into four types. Firstly, there is ‘an ethnographic case study’ that studies a unique element profoundly. Secondly, there is ‘action research case study’ that goes simultaneously with action research. Thirdly, there is ‘evaluative case study’ which includes judgement. Fourthly, there is ‘educational case study’ to study an educational phenomenon (1985, as cited in Cohen et al., 2000, p. 183). Besides, Merriam specified three types of case studies: Firstly, there are ‘descriptive cases’ which are ‘narrative’ and word-based. Secondly, there are ‘interpretative cases’ which interpret facts ‘inductively’. Thirdly, there are ‘evaluative cases’ which judge a specific situation (1988, as cited in Cohen et al., 2000, p. 183). Also, Stake (1994, as cited in Cohen et al., 2000, p. 183) identified three types of CSR: firstly, there are the ‘intrinsic cases’ in which the researcher is interested ‘to understand’ something. Second, there are the ‘instrumental case studies’ that are considered as a tool to gather

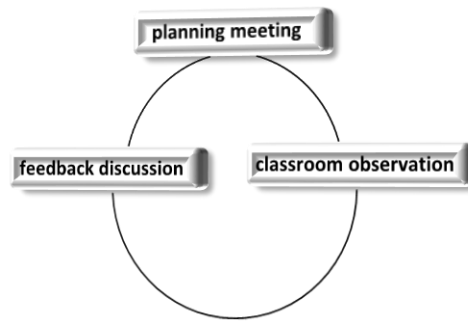
data about something. Third, there are the ‘collective case studies’ where a group of cases is studied.

Concerning the advantages of case studies, they provide ‘in-depth’ analysis because they help the researcher ‘to focus on the individual’. Also, when case studies deal with more than one element, they provide an opportunity to make comparison between these elements in relation to their ‘context’. Nonetheless, case study results cannot be generalized to the whole population because they are unique (MacKey & Gass, 2005, p. 172).

1.8.4. Observation

Observation is “to gather ‘live’ data from live situations” (Cohen et al., 2000, p. 306). It aims at providing ‘descriptions’ of a phenomenon in its natural setting; it is often based on ‘field notes’ and ‘recording’ (MacKey & Gass, 2005, p. 175). According to Hopkins, three cyclical stages of observation exist. The ‘three-phase observation cycle’ is also called ‘clinical supervision’ (Hopkins, 2008, p. 77). As its name indicated, this cycle consists of three stages: the first stage is ‘planning meeting’. The second stage is ‘classroom observation’, and the third one is ‘feedback discussion’. In the first stage which is the ‘planning meeting’, the teacher meets the observer and make some guidelines about the content of observation. Then, in the second stage the researcher observes the teacher and collects the needed information. Finally, in the third stage, the observer discusses the results of observation with the teacher and gives him/her feedback to take ‘action’ (Hopkins, 2008, p. 78). The cycle is illustrated as follows:

Figure 1.3. The Three-Phase Observation Cycle



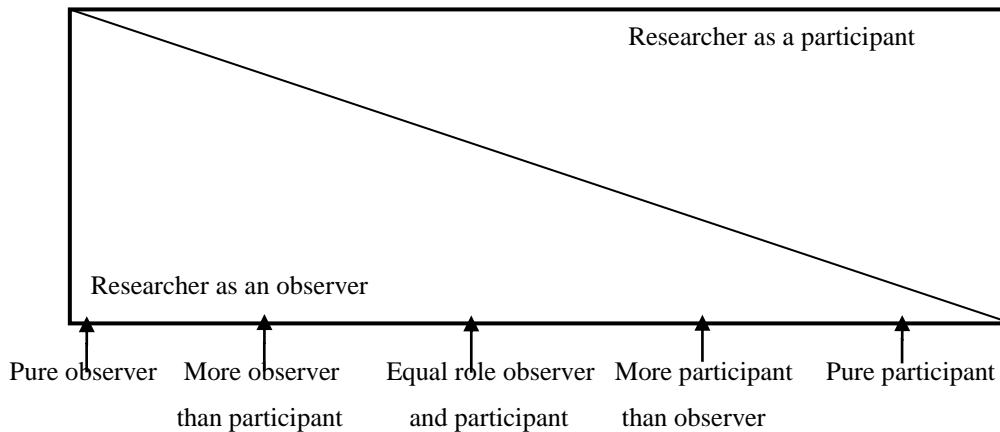
Note. Adapted from: Hopkins, 2008, p. 78.

MacKey and Gass (2005, p. 175) declared that observation ranges from structured observation by the use of a ‘checklist’ or ‘chart’ to unstructured one which is descriptive and natural since it is related to the field study. Cohen et al. (2000, pp. 305-306) also discussed the types of observation according to structure. Firstly, there is structured observation which has a topic and a hypothesis; it is conducted to test the hypothesis. A chart or ‘schedule’ is used to collect quantitative data. Secondly, semi-structured hypothesis also has a topic but no hypothesis; it is ‘hypothesis-generating’. Thirdly, unstructured observation is also ‘hypothesis-generating’ but there is no clear idea about the topic.

According to *the degree of participation*, two main types exist: ‘participant observation’ and ‘non-participant observation’ (Browne, 2011, p. 72). Participant observation is also called ‘naturalistic observation’ (Cohen et al., 2000, p. 310). Gold indicated four degrees/types of observation according to ‘participation’: the first is the ‘complete participant’. The researcher is ‘an insider’ who is conducting ‘covert’ research. The second is ‘the participant as observer’. S/he is conducting ‘overt’ research. Therefore, s/he is not completely an insider. The third is ‘the observer as participant’. It is also ‘overt’ and the researcher is slightly an outsider. The fourth is ‘the complete observer’, it is ‘covert research’ because subjects do not know that they are

observed. The researcher in this type is completely detached; s/he is ‘an outsider’ (1958, as cited in Cohen et al., 2000, pp. 310-311). The following observation continuum depicts what has already been stated:

Figure 1.4. Observation Continuum



Note. Adapted from: Pitney & Parker, 2009, p. 52

As illustrated in Figure 1.3., there is a move from detachment/complete observation to participation. In pure observation, the researcher is 100% detached from the observed person(s)/group; while, the pure participant is completely involved in the group. A significant type of observation is ‘classroom observation’ when a teacher observes what is happening in his/her classroom. Richard and Lockhart defined it as follows:

[A] way of gathering information about teaching, rather than a way of evaluating teaching. In many language programs, teachers are often reluctant to take part in observation or related activities since observation is associated with evaluation. Thus in order for observation to be viewed as a positive rather than a negative experience, the observer's function should be limited to that of gathering information. The observer should not be involved in evaluating a teacher’s lesson. (Richard & Lockhart 1996, p. 12)

As indicated in the previous quotation, observation should be a tool of data collection about teaching rather than assessment and judgment of the teaching process. Moreover, Richards and Lockhart (1996, p. 12) specified two types of classroom observation: ‘student teachers’ observation’ and ‘peer observation’. The former implies that a student observes ‘a cooperating teacher’s class’ whereas the latter is teacher’s observation of ‘a colleague’s class’. Additionally, observation could be ‘collaborative’ or what is also called ‘partnership’ observation; it is conducted by colleagues ‘in pairs or small groups’ in order ‘to develop their practice’ (Hopkins, 2008, pp. 79-80).

Hopkins allocated four methods to classroom observation: firstly, ‘open observation’ when the teacher as an observer writes notes about the lesson so that s/he could make amendments to the lesson (2008, pp. 86-87). Secondly, ‘focus observation’ which is to observe in order to find a topic to focus on (2008, p. 88). Thirdly, ‘structured observation’ that is ‘a tally system’ to gather data by using symbols (2008, p. 89). Finally, ‘systematic observation’ that is to use ‘coding scales’ to help teachers observe complicated phenomena in the classroom (Hopkins, 2008, p. 95).

Observation helps the researcher to get ‘large amounts of rich data’ that is related to ‘particular context’ so that the researcher can indulge deeply in human behaviour. However, the researcher cannot know the real causes behind that behaviour. Hence, observation could be an effective way of data collection when combined with one or more of the other research methods (Mackey & Gass, 2005, pp. 175-176).

1.9. Research Ethics

Conducting research necessitates taking into consideration some ethics and morals so that research could be confidential. The word “ethics” has its roots in the Greek word ‘ethos’ which means ‘character’ (Steane, 2004, p. 60). Ethics dates back to the Greek philosopher Socrates (740-399 B.C.) and the Greek physician Hippocrates

who made the ethical oath of medicine (as cited in Cotrell & McKenzie, 2011, p. 91).

Ethics is defined by Cavan as:

A matter of principled sensitivity to the rights of others. Being ethical limits the choices we can make in the pursuit of truth. Ethics say that while truth is good, respect for human dignity is better, even if, in the extreme case, the respect of human nature leaves one ignorant of human nature.

(1977, as cited in Cohen et al., 2000, p. 56)

Cavan proclaimed, in the previous quotation, that ethics are better than seeking knowledge blindly, and that ignorance is better than disrespectful behaviour. In addition, Howitt and Cramer (2000, p. 17) defined research ethics in psychological research as “the broad moral principles and rules of conduct”. Likewise, Steane considered ethics as “the moral dimension of what *ought to* be the right or good way to both operationalize the research process and report the findings” (2004, p. 60). The *Economic and Social Research Council* (2005, as cited in Hopkins, 2008, p. 201) defined research ethics as “the moral principles guiding research from its inception through to its completion and publication of results and beyond – for example the curation of data and physical samples after the research has been published”. This implies that research is a moral responsibility whose ‘principles’ exist before, during and even after research.

Different ethical problems may spring from multiple research situations, for example data publication could lead to ‘embarrassment’; hence, researchers have to make ‘a balance’ between their research needs/duties and the informants’ rights, which is labeled by Frankfort-Nachmias and Nachmias (see *Appendix A*) the ‘costs/benefits ratio’ (1992, as cited in Cohen et al., 2000, p. 49). According to the ‘costs/benefits

ratio', the researcher is 'free' to pursue information. However, s/he has to respect 'the dignity of individuals' (Cohen et al., 2000, p. 58).

The first ethical principle that has to be achieved by the researcher is '*informed consent*'. It dates back to 1949 with the enactment of the *Nuremberg Code* in USA (Mackey & Gass, 2005, p. 26). Diener and Crandall defined 'informed consent' as "the procedures in which individuals choose whether to participate in an investigation after being informed of facts that would be likely to influence their decisions" (1978, as cited in Cohen et al., 2000, p. 50). According to Cohen et al. (2000, p. 51), the previous definition "involves four elements: competence, voluntarism, full information and comprehension". As explained by them, participants are provided with all the details concerning research to make them comprehend the research project and participate voluntarily in it because they are competent in the sense of the ability to make free 'decisions'. In the same line, Mackey and Gass (2005, p. 27) confirmed that information about research should be 'sufficient'. Informing the participants about the content and aims of research is called by Howitt and Cramer 'debriefing' (2000, p. 20).

Getting consent from the participants is compulsory whenever the researcher needs their opinions or inclusion in research because they may be exposed to psychological and physical oppression. In this context, respondents need clarifications about the advantages and the disadvantages of acting as participants in research. Since the participants have the right to accept, s/he also has the right to refuse taking part in research or 'to withdraw' from it at any time (Frankfort-Nachmias & Nachmias, 1992, as cited in Cohen et al., 2000, pp. 50-51). Howitt and Cramer stressed the fact that getting the informants' consent from very young or mentally ill people is impossible. Therefore, the consent of their parents ought to be got (2000, p. 19). Eventually,

informed consent cannot be obtained when the researcher relies on ‘covert observation’ or ‘experimentation’ (Cohen et al., 2000, pp. 51-52).

Another ethical principle which should be respected by the researcher is ‘*access and acceptance*’; it is to get ‘official permission’ either through oral or ‘written contact’; for instance by sending a letter. Acceptance is paramount when research needs a long time period. It aims at getting ‘assent and cooperation’. In this respect, negotiation with organizations should include the ‘aims, nature and procedures’ of research (Cohen et al., 2000, pp. 54-55). Besides, negotiation should be characterized by “relative openness, sensitivity, honesty, accuracy and scientific impartiality” (Cohen et al., 2000, p. 56) (*see Appendix B for Bell’s Negotiating Access Checklist*).

Researchers may confront the problem of ‘privacy’. The latter may obstruct the need to discover new facts. In this respect, Pring, declared that ‘the right to privacy’ is opposite to ‘the right to know’ (1984, as cited in Cohen et al., 2000, p. 60). Diener and Crandall pointed out three points in relation to privacy: first, there is ‘the sensitivity of information’. Second, there is ‘the setting’, for example ‘home’ is a private setting. Third, there is ‘the dissemination of information’ which indicates reporting information by stating the informants’ names (1978, as cited in Cohen et al., 2000, p. 61).

The problem of ‘privacy’ could be solved through ‘anonymity’ and ‘confidentiality’ of the informant (Cohen et al., 2000, p. 61). Anonymous questionnaires can ensure anonymity and privacy; however, face-to-face interview is confidential but it cannot lead to anonymity and privacy because of ‘traceability’ (Cohen et al., 2000, p. 61). Confidentiality is defined by Cohen et al. (2000, p. 62) as “the extent to which investigators keep faith with those who have helped them”. When research is confidential, the informants’ responses would be more spontaneous and truthful.

When the researcher does not ensure privacy through anonymity and confidentiality as s/he promised, informants would be exposed to 'betrayal', which may lead to "embarrassment, anxiety, or perhaps suffering" of informants. Another problem which results from unethical behaviour by the researcher is 'deception' in experimental studies which "lies in not telling the whole truth" because the researcher is obliged to hide it (Cohen et al., 2000, p. 63). In this scope, Mackey and Gass related deception to "failure to disclose information" related to the nature and objectives of research. They also maintained that the researcher has to question the degree of 'ethical deception' (2005, p. 30). Three solutions were suggested by Kelman to cope with deception: first, 'active awareness' about the existence of deception as unavoidable; second, attempts to diminish its negative impacts; three, the use of "new procedures and novel techniques" like 'role-playing' and 'as-if experiments' which are imaginative ways (1967, as cited in Cohen et al., 2000, p. 63). In this respect, it is advocated by Cohen et al. that researchers have to make "a code of ethical practice" (*see Appendix C for an example of an ethical code*) that includes common ethical principles for conducting research (2000, p. 71).

According to Howitt and Cramer (2000, p. 19), confidence between the researcher and the informants necessitates their 'protection' by avoiding all types of 'harm'. This lies under the principle of 'nonmaleficence' that is based on 'beneficence' which refers to avoiding harm (Steane, 2004, p. 68). More importantly, Howitt and Cramer (2000, p. 20) explained that deciding about research ethicality could be confirmed by 'consultation' with experts in the field of research. Ethics committees could be relied on to give consent to researchers to conduct their research.

1.10. From Teachers' Research to Students' Research

Conducting research has long been considered as a part of teachers' professional career. However, one should not limit the circle of inquiry by including just teachers. Eventually, students are also responsible for their learning through exploring the educational context and gaining knowledge about their field of study.

1.10.1. Teachers' Research

As claimed by Hopkins (2008, p. 1), the *Humanities Curriculum Project*, directed by Stenhouse (1967–72) encouraged the idea of the teacher as a researcher. He (2008, p. 1) added that Elliott and Adelman supported the idea of teachers' research in the *Ford Teaching Program* (1972-75). Stenhouse focused on 'the concept of emancipation' which indicates that teachers work in the learning environment freely. He explained that "the teacher is engaged not only in a meaningful professional development activity, but is also engaged in a process of refining and becoming more autonomous in professional judgement" (1983, as cited in Hopkins, 2008, pp. 2-3). So, teacher's research is a way of autonomous self-assessment. As maintained by Hopkins, "teachers who engage in their own research are developing their professional judgment and are moving towards emancipation and autonomy" (2008, p. 38). Similarly, Loughran, Mitchell, and Mitchell ensured that teachers' research leads to 'professionalism' especially when it is 'collaborative' so that teachers "share their knowledge and understanding about teaching and learning" (2002, p. 16).

Consequently, the process of research whose goal is development and change should be based on cooperative work in which views are shared among a group of teachers. More importantly, each teacher should be a researcher starting from his/her own classroom. As pointed out by Richards and Lockhart (1996, p. 100), "the teacher is encouraged to conduct research related to language learning and teaching, including

research in his or her own classroom”. Moreover, Hopkins has argued that “research-based teaching” leads to “more confident, flexible and autonomous” teachers (2008, p. 39). In the same line, Zaman studied the relationship between teaching and teachers’ research in Higher Education. He claimed that “research and teaching quality are not contradictory goals” (2004, p. 10). In this context, the researcher plays several roles, s/he is “an observer, a surveyor, an analyst, a communicator, a sounding board (through original contribution and its relation with past knowledge), an actor (‘how-to’ knowledge), a consultant, and a clinician (cure provider)” (Karlsson, 2016, pp. 15-16).

Allwright and Bailey argued that classroom research includes “a whole range of research studies on classroom language learning and teaching...the emphasis is on trying solidly to understand what goes on in the classroom setting” (1991, p. 2). This entails that research is conducted to gain knowledge about the process of language learning and teaching in the classroom. Gebhard considered the teacher’s “goal of improved instruction” as ‘supervision’ (1990, as cited in Bailey, 2009, p. 269). Here, the process of supervision is not related only to theses and dissertations’ correction and evaluation, it is rather an assessment of one’s own teaching.

More importantly, Burns (1999, p. 14) maintained that Action Research (AR) could help teachers concentrate on their ‘classroom practice’ and on ‘curriculum change’. AR emerged in social sciences as “the study of a social situation with the view to improving the quality of the action within it” (Elliott, 1991, as cited in Hopkins, 2008, p. 48). So, it is related to society by changing a specific context after examining it. Then, it was implemented in education to improve teaching and learning outcomes. In this respect, Schmuck stated that AR is to “study a real school situation with a view to improve the quality of actions and results within it” (1997, as cited in Mertler, 2012, p. 14). Here, AR is related to real-world change. Consequently, the

teacher could conduct AR as a method of classroom research to improve one's own teaching through self-evaluation.

1.10.2. Students' Research

Many researchers focused on teachers' research rather than students' research which could be the most important factor that may monitor the learning process for example: Linsky and Strauss (1975), Centra (1983), Feldman (1987), Newmann (1994), Hattie and Marsh (1996), Ellis (2001), Oliveras et al. (2003)...etc. (as cited in Zaman, 2004, pp. 2-3). So, it is observed that students' research has a minor position in contrast to teachers' research.

Steinburg and Kincheloe advocated the idea that students have to be researchers so that they can 'change' the world around them (1998, p. 2). They further maintained that students ought to be able to assess their own results of research (1998, p. 6). They (1998, p. 12) declared that students should follow the philosophy of Dewey (1933) by learning through self-reflection and teachers' monitoring. Besides, encouraging students' research is due to the collaboration of the students and their teachers (Steinburg & Kincheloe, 2008, p. 17). In this respect, teachers have to promote students' involvement in choosing the content of the syllabus by encouraging them to be "sophisticated researchers" since the problem is not about their ability to conduct research. Rather, it is related to ways of motivating them to do so (Steinburg & Kincheloe, 1998, p. 14).

1.10.2.1. Definition of Undergraduate Research

Undergraduate Research (UR) dates back to 1920 in the sciences and to 1895 in medicine (Laursen et al., 2010, p. 4). As defined by the council of Undergraduate Research, UR is "an inquiry or investigation conducted by an undergraduate student that makes an original intellectual or creative contribution to the discipline" (Laursen et

al., 2010, p. 2). In foreign languages, several studies were conducted to investigate students' research. In 2003, Ward and colleagues (as cited in Willison & O'Regan, 2007, p. 397) appreciated students' agreement that their research is better than "traditional courses" since it makes learning easier. So, research-based learning relies on the student as an active agent who could search for information and make oral presentations in the classroom in contrast to "traditional courses" where the teacher is the only monitor of the lesson while the student is a passive receiver of knowledge. Consequently, learning becomes easier because the student participates in creating knowledge.

1.10.2.2. Undergraduate Research Quality

There is no common assessment of the quality of educational research. In this respect, Mahmoud used the word "quality" to refer to research that "may have internally and externally valid research design, reliable data sources, free from plagiarism practices, application of appropriate tools, and meaningful interpretation of results in practical and statistical terms" (2011, p. 34). Moreover, Chawla and Sodhi (2011, pp. 18-19) indicated the following characteristics of good research: 'purpose', 'plan', and 'logical justification' about the techniques used to gather data and analyze it in addition to 'sampling plans'. In addition, the researcher has to report data objectively and to respect ethical values. Finally, the method of research should be 'replicable' to reach the validity of findings. According to Silverman and Bernstein, good research takes into consideration the context, the sample, time, and method of data collection and analysis (2012, p. 41). What could also make research quality good is exposing research to review and publication (Silverman & Bernstein, 2012, p. 44). Without a doubt, high-quality research necessitates a good academic writing style that comprises citation and referencing (Singh & Lukkarila, 2017, p. 16). Therefore, it is worth

mentioning that reading academic writing could improve students' academic writing. In this respect, teachers have to provide students with good 'models' for their homework (Singh & Lukkarila, 2017, p. 25). As advised by Singh and Lukkarila, students have to know academic writing styles which are related to each module so that they could develop "a basic stylistic knowledge of the writing conventions" (2017, p. 48).

Denscombe (2010, p. 3) identified ten 'Ground Rules' for *good research* including: "purpose, relevance (literature review), feasibility (practicality), ethics, objectivity, design, philosophy, accuracy, accountability (reporting), generalizations, originality, and proof". Therefore, originality is highly appreciated as an important criterion for good research since plagiarism destroys the "authenticity" of the text (Roy, 1999, p. 59). In this respect, Coyle and Law insisted that "plagiarism...-whether deliberate or unintentional- is the most serious mistake that can damage a paper" (2009, p. 85). Therefore, the quality of academic writing is threatened by plagiarism that is considered as a threat to the credibility of research rather than as a threat to academic integrity since it makes research unreliable (Bloch, 2012, p. 2).

Students' ability to conduct research is related to their self-efficacy in research which refers to "judgments about one's ability to perform specific research tasks" (Bieschke, 2006, p. 80). Hence, the Research Self-Efficacy Scale (RSES) was developed by Greely et al. to measure students' self-efficacy in research (1989, as cited in Bieschke, 2006). However, students' research quality is not good due to plagiarism which is like a worm that destroys "intellectual inquiry and reason, and starves the seeds of originality" (Kolich, 1983, as cited in Sutherland-Smith, 2008, p. 20). Interestingly, Singh and Lukkarila advised writers to do the following:

[M]ake a good practice of also giving credit where credit is due...and exercise due diligence to ensure that the ideas you are coming up with on your own are not already in existence within the literature...you are a more ethical and stronger scholar when you show that your ideas are grounded in the larger scholarship. (2017, p. 223)

As observed in the quotation, Singh and Lukkarila insisted on the importance of academic integrity and originality. They described the honest writer by using two adjectives: ‘more ethical and stronger’. Usually, when two copies are found, this would create problems of ownership and ‘mistaken identity’, which is considered as ‘a crime’ (Randall, 2001, as cited in Marsh, 2007, p. 138). Hence, originality is stressed since it guarantees the authenticity of research.

Moreover, Healey and Jenkins (2009, p. 6) appreciated the idea of making students good researchers, they claimed that: “our goal here is to move more curricula in the direction of developing students as participants in research and inquiry, so that they are producers, not just consumers of knowledge”. This entails that students have to be active in the field of inquiry. This could be achieved when policy makers and teachers as syllabus designers include students’ research in the objectives of the syllabus. More importantly, it is revealed by Hudley, Dickter, and Franz (2017, p. 22) that the earlier research is, the more academic advantages students would have.

1.10.3. Training Students to Conduct Research Autonomously

Fielding (2004, as cited in Hopkins, 2008, p. 54) encouraged training students to conduct research. Within this scope, it is advised by Steinburg and Kincheloe (1998, p. 16) that teachers who train them must be skilled and competent in conducting research. Mutual collaboration is needed when conducting research; within this cope, Paulo Freire involved his students in his research by engaging them in field investigation so

that they gained knowledge of research skills such as: ‘observing, interviewing, and note-taking’ (1972, as cited in Steinberg & Kinchelo, 1998, p. 16). This does not mean that the teacher has a passive role because as claimed by Steinburg and Kinchelo (1998, p. 17), training students to become researchers is the result of collaboration between teachers and students.

Moreover, Barrett and Moore insisted that in PBL (Problem-Based learning), students conduct research “to explore and tackle the problems they work on...They also have to engage in independent learning” (2011, p. 9). So, PBL could help them become autonomous researchers. However, Brown and Rodgers argued that graduate students perceive research negatively by considering it as “endless, painful, boring and time-consuming” (as cited in McKay, 2006, p. 3). Willison and O’Regan introduced the characteristics of *students as researchers* as indicated in the following quotation:

- embark on inquiry and so determine a need for knowledge/understanding;
- find/generate needed information/data using appropriate methodology;
- critically evaluate information/data and the process to find/generate them;
- organise information collected/generated and manage research processes;
- synthesize and analyze and apply new knowledge;
- communicate knowledge and the processes used to generate it, with an awareness of ethical, social and cultural issues. (2006, as cited in Willison, 2010, p. 4)

The previous quotation implies that students start research since it represents a need for discovery by following a suitable ‘methodology’ through which they criticize, assess and ‘organize’ data. Then, they re-formulate and ‘apply new knowledge’. Finally, students have to ‘communicate’ data and the way used to collect it, taking into consideration ethics in addition to social and cultural norms. Consequently, research

starts as a need and ends as an ethical responsibility. Within this scope, Steane (2004, p. 84) advised teachers to use “workshops and seminars on intellectual property” as very useful ways of making students understand academic integrity.

1.10.4. The Research Skill Development Framework (RSDF)

Students should be taught the necessary research skills that may help them conduct good-quality research (Steane, 2004, p. 63). In this respect, Willison and O’Regan (2006) introduced the “Research Skill Development Framework” (RSDF) (as cited in Willison & O’Regan, 2007, p. 400) as an effective way to develop students’ research skills explicitly (see *Appendix E*). It includes five levels of students’ autonomy ranging from total guidance and closed inquiry to self-guidance and open inquiry. The RSDF encompasses six ‘facets’ of inquiry: curious, determined, critical, organized, creative and persuasive. Each facet of knowledge falls in one level of economy. For example, level five which is ‘open inquiry’ implies that the student is completely autonomous.

Willison introduced the limitations of the RSDM claiming that this framework could not lead to the development of “all students’ research skills” (2010, p. 6). Willison and O’Regan defined students’ research as “a continuum of knowledge production, from knowledge new to the learner to knowledge new to humankind, moving from the commonly known, to the commonly not known, to the totally unknown” (2007, p. 394). Consequently, research is considered as a discovery of hidden facts by uncovering the world of ambiguity.

Furthermore, Willison and Buisman-Pijlman published a new version of the RSDF (2016) which includes seven levels of autonomy in research as follows: ‘level 1: prescribed research; level 2: bounded research; Level 3: scaffolded research; level 4: self-initiated research; level 5: open research; level 6: adopted research; and level 7:

enlarging research’ (as cited in Willison, & Buisman-Pijlman, 2016, p. 67). The first level is totally directed by the teacher who plans for students’ research and guides them throughout the different steps of inquiry. However, the last level indicates students’ self-guidance during research and complete detachment from the teacher. Unlike ‘bounded research’, the student starts to work independently in ‘scaffolded research’ where the role of the teacher is scaffolding. Open research is more independent than ‘scaffolded research’. Enlarging research is totally independent whereas adopted research is less independent. Furthermore, Willison and Buisman-Pijlman considered the first three stages as ‘*supervisor instigated research*’. Also, they labelled level four and five as ‘*researcher instigated*’, and level six and seven as ‘*discipline leading*’. This implies that the first three levels are guided by teachers’ supervision; whereas, subsequent levels are student-oriented. Eventually, when the student develops his/her career as an independent researcher, s/he is able to initiate autonomous research since s/he is a leader in his/her discipline who is able to make an original contribution. Moreover, the RSDF (2015) includes six aspects of research. Nonetheless, the third aspect ‘discerning’ substituted the old version’s word ‘critical’ while the word ‘harmonizing’ replaced the word ‘organized’. The new version used the word ‘constructive’ instead of ‘persuasive’. It is observed that the new words are more comprehensive, accurate, expressive, and flexible. What is more important is that the new RSDF takes into consideration the ethical, cultural, social, and team (ECST) factors.

Recently, Willison and O’Regan revised the RSDF (2006) by making a new version (2016, see *Appendix F*). Unlike the RSDF (2015), the RSDF (2016) assigns five stages to promoting autonomous research: ‘prescribed researching, bounded researching, scaffolded researching, open-ended researching, and unbounded

researching'. Here, autonomy in research is developed gradually by moving from restricted research to totally free/open research. To reach this stage of autonomous research scaffolding is needed where mutual collaboration between the teacher and the students-as-a researcher is highly advocated. Similar to the RSDF (2015), the RSDF (2016) includes six aspects of research and gives much importance to ECST factors. Concerning its importance, the RSDF (2016) could help students search again and again; they "move from 'search to 'research'" (Willison & O'Regan, 2016). In other words, following the RSDF, teachers could develop students' autonomous research by moving from teacher-guidance to self-guidance which is the highest degree of autonomy.

Conclusion

Undergraduates are intended to follow scientific research methodology since research is not a random process but rather a systematic one. They have to understand the research types, methods and tools as well as the citation styles (APA/MLA) so that their research quality could improve. Reporting and analyzing data requires an effective level in academic writing on the one hand, and respect of research ethics and academic integrity on the other hand.

The student as a researcher is the heart of the learner-centred curriculum. Thanks to the Internet, students of English and other foreign languages can promote their research skills and develop their autonomy. They may start from the homework given by the teacher to achieve more complicated tasks in the future such as writing reports, dissertations, and articles. Hence, teachers and curricula designers have to focus on developing students' research skills through an effective teaching of research methodology based on training them to conduct research autonomously.

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Chapter Two

Academic Integrity versus Plagiarism in the Internet Age

“Manage technology, don’t let technology manage you”

(Lewis, 2009, p. 89)

Introduction

Undergraduates are torn between getting valuable, substantial and relevant information, and avoiding plagiarism at the same time. Some students lack the necessary grammatical and lexical competences as well as vocabulary, which prevents them from writing proficiently. Others may face a more severe problem that is the lack of understanding what they read; they are not able to reword others’ ideas.

It is observed that the majority of written assignments are most of the time done quickly without citation and paraphrasing. This is due to two main causes: firstly, easy access to the Internet has facilitated plagiarism so that integrity is lost in the Digital Age. Secondly, some teachers are tolerant with students concerning plagiarized information and absence of in-text and bibliography citation.

To tackle this phenomenon, the difference between academic integrity and academic dishonesty is highlighted. Then, the history of plagiarism and intellectual property is overviewed. Moreover, several attempts to define the word “plagiarism” are discussed. After that, common knowledge is distinguished from plagiarism. Later, the forms, types and causes of this phenomenon are tackled. After that, the prevalence of plagiarism in higher education is explored. Besides, light is shed on the effect of plagiarism on students’ career as well as plagiarism detection instruments and models.

Furthermore, the impact of the Internet on academic integrity is discussed especially *technology-based learning* and the relation between *Internet-Mediated Research* and plagiarism. Finally, ways of preserving academic integrity and deterring plagiarism are suggested.

2.1. Academic Integrity versus Academic Dishonesty

Integrity comes from the Latin word “integer” which means ‘complete, whole, or entire’ (Killinger, 2010, p. 12). It is ‘a personal choice’ and “a consistent commitment to honour moral, ethical, spiritual, and artistic values and principles” (Killinger, 2010, p. 12). So, integrity is a ‘personal’ decision based on moral ethics. Killinger further commented that integrity is related to decisions which spring from the inside personality (2010, p. 3). Moreover, integrity in research implies “responsible conduct of research” mainly through honest data interpretation and confidentiality with informants (Nichols-casebolt, 2012, p. 7). Furthermore, integrity enhances an authentic use of authors’ words that ensures the validity of research (Lunsford, 2010, p. 283). As explained by White:

Instead of becoming more of an independent thinker and hence developing increased integrity as an individual, the plagiarist denies such integrity and hence the possibility of learning. Someone who will not, or cannot, distinguish his or her ideas from those of others, or trace the origins of those ideas, offends the most basic principles of learning. (1999, p. 210)

As indicated in the previous quote, integrity is inter-related to “independent thinking” and learning while academic dishonesty hinders learning because the person is unable to express his/her ideas freely. Accordingly, academic dishonesty contaminates students’ home works since they receive fake grades due to “unauthorized assistance” (Kaufman, 2008, p. 2). Therefore, Clabaugh and Rozychi described ‘academic dishonesty’ as ‘epidemic’ (2001, p. 5). Hence, students ought to avoid all possible acts that display academic dishonesty.

Academic dishonesty refers also to *research misconduct* which is defined by Nichols-casebolt as “deliberate falsification, fabrication, and plagiarism in the

proposing, conducting or disseminating of research” (2012, p. 7). Hence, dishonesty encompasses falsified data and fabricated words. Moreover, Fanelli considered research misconduct as ‘any omission or misrepresentation’ related to data and its ‘context’ and further commented that misconduct is ‘distorted reporting’ (2013, p. 145). As a result, reporting the research findings or others’ ideas and structures should be based on trustworthiness and faithfulness.

2.2. History of Plagiarism and Intellectual Property

The word “plagiarism” was prevalent “before the eighteenth century” (Green, 2002, p. 177). According to the Roman law, the word “plagiori” means to steal ‘a slave or a child’ (Robinson, 1995, as cited in Green, 2002, p. 177). The second edition of the *Oxford English Dictionary* (1989) explained that plagiarism dates back to 1926 when it was first used in English by Bishop Richard Montagu (as cited in Green, 2002, p. 177). The word plagiarism is derived from the Latin word ‘plagiarius’ which means ‘kidnapper’ (Coyle & Law, 2009, p. 79). Moreover, plagiarism originates from the Greek word “plagios” which means ‘crooked’ and ‘treacherous’, meaning *dishonest* (Paulos and Menager, 2011, p. 2). As a result, plagiarism was associated with negative connotations.

The invention of printing by Gutenberg in 1450 raised the issue of ‘possessive individualism’ which started by the protection of the ‘physical body’ and ended in the protection of intellectual property (Sutherland-Smith, 2008, pp. 37-38). In this respect, Temple insisted that “the invention of printing has not...multiplied books, but only the copies of them” (1814, p. 446). This stresses the fact that the invention of the press highly increased plagiarism.

The history of intellectual property dates back to 1557 in England where a ‘royal charter’ was delivered to ‘the Stationer’ which is a books’ selling company in

order to publish books legally and to get financial benefit instead of the author who got nothing in return (Pecorari, 2008, p. 11). Authors started to get paid in 1710 with the enactment of Queen Anne which granted authors “a copyright for a period of 14 years”. Later on, other acts of intellectual property were legislated in 1814. In 1842, a copyright act of forty-two (42) years was enacted (Pecorari, 2008, p. 12).

However, in the United States of America (USA), the first copyright law was enacted in 1790 for fourteen (14) years, and extra 14 years if the author did not pass away. Later, in 1909, a copyright law was delivered for 28 years which could be added extra 28 years (Jenkins, as cited in Boyle & Jenkins, 2013, pp. 291-292). Nowadays’ copyright law dates back to the act of 1976 which started on the first of January 1978. It protects the author rights during his/her whole life and 70 years after his/her death. Due to the new challenges of technology, the act was amended in 1998 through the legislation of the “*Digital Millennium Copyright Act*” that protects online and digital materials (Jenkins, as cited in Boyle & Jenkins, 2013, p. 293).

Concerning the relationship between plagiarism and intellectual property (IP), Bloch explained that “plagiarism refers to the inappropriate use of what is called intellectual property” (2012, p. 1). He defined *intellectual property* as “creative acts that have been placed in a fixed medium” (2012, p. 1). This implies that IP is intertwined with creativity. Bloch differentiated between intellectual property and “ideas” in the sense that ideas are not “placed in a fixed medium”. Here, a ‘fixed medium’ refers to the structure or the verbatim. He added that unlike intellectual property, physical property “can be borrowed, distributed and utilized without seeking the permission of the owner” (2012, p. 1). Within this scope, McCord commented that plagiarism is ‘unethical’ due to the loss of intellectual property (2009, p. 604). In this respect, Bailey explained that:

In academic work, ideas and words are seen as private property belonging to the person who first thought or wrote them. Therefore it is important for all students, including international ones, to understand the meaning of plagiarism and learn how to prevent it in their work. (Bailey, 2011, p. 30)

In the previous quotation, Bailey advised all students even ‘international ones’ to learn the techniques of plagiarism avoidance in order not to violate intellectual property which encompasses both ‘ideas and words’. In contrast, Pecorari insisted that plagiarism is not a serious ‘violation’. Plagiarists ought not to ‘be judged’ unless we take into consideration the conditions and the situation behind plagiarism (2008, p. 12). This implies that Pecorari thinks that teachers must be tolerant when plagiarism is due to some circumstances or when students do not understand what is meant by academic dishonesty and research misconduct. So, before blaming students we should blame teachers who did not explain to them what is meant by plagiarism and how to avoid it.

Preserving academic integrity entails avoiding ‘copyright infringement’. A *copyright* is defined as “the exclusive right to distribute, display, perform, or reproduce an original work in copies; prepare derivative works based on the works; and grant these exclusive works to others” (Reynolds, 2014, p. 263). This implies the ownership of the work which could not be republished either partially or completely. Furthermore, plagiarism is discriminated from ‘*copyright infringement*’. The former is to consider others’ works as your personal work, while the latter is a reproduction of a work ‘without permission’ (Bank, 2010, p. 208). Lewis explained that ‘copyright’ infringement is due to the Internet which has facilitated access to digital materials (2009, p. 19). The reason provided by Lewis proves the negative impact of the Internet on intellectual property. Therefore, students should understand that technology becomes a curse when it is not utilized honestly.

2.3. Definition of Plagiarism

Various definitions were provided by many scholars to explain what is meant by plagiarism which is considered as “a complex and interesting concept” (Green, 2002, p. 170). Lindey described it as a ‘wrongful act’ (1952, as cited in Wilson, 1999, p. 214). Besides, Schier viewed it as “copying someone else’s work and falsely claiming that the result is your own” (1986, p. 29). This entails that the plagiarist takes over others’ intellectual property as well as their findings. In addition, Howard defined plagiarism in relation to three aspects: first it is ‘cheating’ since the plagiarist considers others’ works as his/her own work. Second, it is ‘non-attribution’ because the writer does not attribute the work to his/her owner by using citation and referencing due to lack of experience. Third, it is ‘patchwriting’ which is making modifications for a text by changing some words with their synonyms (1995, as cited in Usoof, Hudson & Lindgren, 2014, p. 52). Moreover, Roy related plagiarism to ‘deception’ by stating that:

The text, which we thought we could trust, has turned into intertext and mediates the deception... No one invoked the authenticity of the text itself, or the integrity of the message, things that might be damaged or undermined by plagiarism. (1999, p. 59)

As indicated in the previous quotation, plagiarism leads to a text that lacks authenticity and faithfulness. Furthermore, Tiffin and Rajasingham claimed that plagiarism is “something that students copy rather than originate” (2003, p. 82). As a result, plagiarism implies the absence of originality and creation. Simply put, Myers and Shaw underlined that “plagiarism is presenting someone else’s work as your own” (2004, p. 54). Then, they defined it in relation to *intellectual property* as “pretending that somebody else’s intellectual property is your original effort”. They further

described plagiarism as ‘theft’ like ‘stealing a car’ (2004, p. 55). In this respect, plagiarism is to pretend that you have done an ‘intellectual’ work while in reality you have not. Subsequently, Krause proclaimed that “plagiarism is the unauthorized or uncredited use of the writings or ideas of another in your writing. While it might not be as tangible as auto theft or burglary, plagiarism is still a form of theft” (2007, p. 8). This denotes that plagiarism is a shameful act of theft even if it is not very noticeable like burglary.

Moreover, Marsh depicted plagiarism as ‘a dirty word’ (2007, p. 31). He argued that it is difficult to define plagiarism without understanding its ‘critical-theoretical approaches’ on the one hand, and writing as an ‘individual practice’ on the other hand (2007, p. 37). Harvey commented that plagiarism is “the act of passing off the information, ideas, or words of another as your own by failing to acknowledge their source—an act of lying, cheating, and stealing” (2008, p. 29). So, plagiarism is related to both ideas and words and it is considered as theft. Simultaneously, Gibaldi defined plagiarism as ‘an act’ that “gives the impression that you wrote or thought something that you in fact borrowed from someone, and to do so is a violation of professional ethics” (2008, as cited in Weber-Wulff, 2014, p. 4).

Fishman (2009) provided a new definition of plagiarism encompassing five parts. He revealed that plagiarism is related to the use of others’ ideas or language without citing the source where the aim is to ‘gain’ something which is not financial. Besides, Fishman insisted that plagiarism is not equal to *theft*. Although plagiarism involves ‘taking’, the plagiarist does not ‘deprive the owner’ of a physical property (p. 2). He further distinguished plagiarism from *fraud*. Fraud necessitates ‘harm’ and financial ‘losses’ which is not the case for plagiarism (2009, p. 4). Additionally, Fishman stated that unlike plagiarism, *copyright infringement* is related to works

protected by legal codes where the aim of ‘copyright law’ is ensuring monetary rewards of the writers. Meanwhile, one can plagiarize a work which is not protected by law. He added that copyright infringement could take place without plagiarism (2009, p. 4). Accordingly, plagiarism is distinct from theft, fraud and copyright infringement.

In contrast to Fishman, Coyle and Law argued that plagiarism is “the act of using another person’s language or ideas without acknowledgment” (2009, p. 79). They further described it as ‘theft’ and ‘a serious act of dishonesty’ (2009, p. 79). Also, they insisted that plagiarism is a ‘serious’ crime because it is against the rules of academic integrity. Respectively, McCord provided a comprehensive definition of plagiarism comprising three different hints:

- a) The use, by paraphrase or direct quotation, of the published or unpublished work or creative and/or intellectual property in print, product, or digital media of another person without full and clear acknowledgments.
- b) The unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers, reports or other academic materials.
- c) The appropriating, buying, receiving as a gift, or obtaining by any other means another person’s work and the unacknowledged submission or incorporation of it in one’s own work. (2009, p. 604)

In the previous quotation, McCord explained that plagiarism encompasses both paraphrases and quotations without citation. It is the consideration of others’ works as one’s own work as well as the inclusion of others’ work within one’s work either through sale or as a ‘gift’. Apparently, this definition is more comprehensive than the other definitions. Moreover, plagiarism is defined by Carroll and Zetterling as:

[S]ubmitting someone else's work as your own. A student's work can be declared to be plagiarism if it shows unacknowledged use of other people's ideas and materials. Plagiarised student work makes it seem as though the ideas or materials are the student's own rather than making it clear where in the material the student has included work from others. The same is true if students include others' words and do not show that they are quoted. (2009, p. 5)

As explained in the previous quotation, plagiarism is using others' ideas or materials without acknowledgement of the source concerning both paraphrasing or quoting. Additionally, Rubin et al. stated that:

Plagiarism means using an author's words or ideas without giving proper credit. Giving credit for ideas usually takes the form of citing the author and year of publication in the text and reference list. Credit for actual words goes beyond simple citation to giving the page number in the text and using quotation marks around the quoted material. (2010, p. 260)

As indicated by Rubin et al. in the previous quotation, citation has two forms: in-text citation and bibliography citation. The former necessitates citing the page number and using quotes. Eventually, Shields announced that plagiarism is "using other people's ideas and words without proper acknowledgements". She added that plagiarism is theft of abstract things (2010, p. 98).

Bailey defined plagiarism as "taking ideas or words from a source without giving credit (acknowledgement) to the author. It is seen as a kind of theft, and is considered to be an academic crime" (2011, p. 30). In this respect, plagiarism is viewed as an intellectual crime. Simultaneously, Paulos and Menager defined it as "using someone else's work and passing it off as one's own" (2011, p. 2). Many authors

associate plagiarism with cheating. For example, Kanar considered plagiarism as “one kind of cheating” (2011, p. 105). Also, Bombaro assured that plagiarism is “the act of copying another person’ s ideas and presenting them as if they were your own work...Put simply, plagiarism is theft” (2012, p. 3). Hence, both plagiarism and cheating entail academic dishonesty and stealing something which does not belong to one.

Fisher defined plagiarism as “the representation of another person’s ideas or words without appropriate credit” (2012, p. 236). This implies the importance of citing sources and authors. Furthermore, Oyekan defined plagiarism as ‘the opposite of honesty’ and as “an offense of serious magnitude. It is the failure *regardless of whether it is deliberate or not* of a writer to give an honest account of the sources of information contained in this writing” (2013, p. 31). It is observed that Oyekan considered plagiarism, either intentional or not, as a dishonest act. He associates it with the word ‘failure’. Moreover, Reynolds claimed that plagiarism is “the act of stealing someone’s ideas or words and passing them off as one’s own” (2014, p. 253). This definition emphasises that plagiarism is related to theft of both ‘ideas’ and ‘words’. Similarly, Singh and Lukkarila stated that “plagiarism includes taking someone else’s words and presenting them as if they are your own”. They added that “the broader idea of borrowing or stealing someone else’s ideas also fits within the definition of plagiarism” (2017, p. 223).

Accordingly, from the previous definitions we deduce that plagiarism is stealing from others either the form or the content or buying/taking others’ work and considering it as one’s own work. It includes both incomplete and wrong citation of sources and authors. Plagiarism could be deliberate or unconscious. It is a serious act of academic dishonesty which is against ethics and academic integrity. A student who

does not appreciate integrity and ethical behaviour would definitely plagiarize others' works, words or ideas without feeling guilty.

2.4. Common Knowledge versus Plagiarism

Plagiarism has nothing to do with *common knowledge* which does not need citation because it is well-known. For example, the fact that George Bush was re-elected in 2004 is a common knowledge (Coyle & Law, 2009, p. 80; Lunsford, 2010, p. 282). The following table shows the sources that need acknowledgment:

Table 2.1

Sources which Need Acknowledgement

Need to acknowledge	Do not need to acknowledge
-quotations	-your own words, observations,
-paraphrases or summaries of a source	surveys, and so on
-ideas you glean from a source	-common knowledge
-facts that aren't widely known	-facts available in many sources
-graphs, tables, and other statistical information from a source	-drawings or other visuals you create on yourself
photographs, visuals, video, or sound taken from sources	
experiments conducted by others	
interviews that are not part of a survey	
organization or structure taken from a source	
help or advice from an instructor or another student	

Adapted from: Lunsford, 2010, p. 283.

2.5. Forms of Plagiarism

Many forms of plagiarism are identified; the American Psychological Association (APA) differentiated between 'plagiarism' and '*self-plagiarism*'. The former is "the practice of claiming credit for the words, ideas, and concepts of others"; whereas; the latter is "the practice of presenting one's own previously published work as though it were new" (APA, 2010, p. 170). The following words are used interchangeably for self-plagiarism: 'reuse', 'recycling' and 'duplicate' (Weber-Wulff, 2014, p. 13). Davis endorsed that "recycling" is when you "resubmit an old paper...as a

new product” (2009, p. 350). Hence, we could affirm that self-plagiarism is also a form of theft and that a writer should credit his/her own previous sources. In this context, Biros warned that “subsequent papers written by the same author” should be declared through in-text citation and referencing (2000, p. 4). Additionally, Usoof et al. differentiated between ‘auto-plagiarism’ and ‘self-plagiarism’. The former denotes failure in “citing themselves” concerning their past works; while, the latter entails that a writer deliberately presents his past work as a new one (2014, p. 53).

Plagiarism is differentiated from *ghostwriting*. The former is theft while the latter is pretending that others’ statements are one’s own production (Standler, 2012, p. 11). In this respect, the term *Cyber-Pseudepigraphy* was coined by Page in 2004 to refer to online papers/‘mill papers’ which are sold to students who use them as if they are their own works (as cited in Sutherland-Smith, 2008, p. 116). Eventually, ghostwriting indicates that plagiarism is complete since the whole work is copied.

Similar to patchwriting, ‘mosaic plagiarism’ indicates mixing original words’ with the synonyms of others’ words (Olsson, 2004, p. 115). Olsson indicated that ‘the mosaist plagiarist’ modifies ‘key words and phrases’ in others’ works and considers them as one’s work (2004, p. 115). Mosaic plagiarism is also defined as:

Borrowing the ideas and opinions from an original source and a few verbatim words or phrases without crediting the original author. In this case, the plagiarist intertwines his or her own ideas and opinions with those of the original author, creating a ‘confused plagiarized mass’. (Iverson, 1998, p. 104)

As indicated in the previous quotation, mosaic plagiarism is a mixture of *original* words and ideas on the one hand, and *copied* words and ideas on the other

hand, which leads to 'confusion'. Confusion here implies the lack of authenticity since the authentic writer of the text is not evident.

Another word which entails plagiarism is *collusion*. It is "when two or more students submit either the same paper or very similar papers that have only had a number of superficial modifications done to them". Collusion, in other words, means "working together in a situation in which individual work is expected" (Weber-Wulff, 2014, p. 106). Myers and Shaw defined it as "pretending that a cooperative effort is the independent work of one student" (2004, p. 54). Eventually, collaborative work does not behold doing the same work without the agreement of the teacher. We think that some students tend to avoid plagiarism when it is pair or group work not because they know how to share work or to take part within a group work, but they rather lack self-reliance and feel less stressed when the work is done with others.

Giving a copied work implies students' acceptance to get the same mark (Maggi, 2003, p. 66). We think that these students are not competitive because they accept having the same mark as someone else. When the students are intended to collaborate in work, they should make equal efforts in the group. A student who makes less or no effort is a plagiarist (Maggi, 2003, p. 66). Apparently, we may approve that students who work in a group but do nothing hide their intentions of plagiarism. Hiding them damages academic papers and falsifies academic achievement because getting the same mark as your partner who has worked hard is unfair.

According to Brown and Murphy, a word which could be confused with plagiarism is "*cryptomnesia*". It is when the writer does not know that someone stated the same idea before (1989, as cited in Kellogg, 1999, p. 85). Cryptomnesia is unintentional plagiarism. It is recurrent especially when you re-tell the same idea which you published before (Kellogg, 1999, p. 85). Cryptomnesia has its roots in psychiatry;

it was coined by the Swiss psychiatrist Flournoy in 1900 to refer to recalling forgotten past events (Tallis, 2002, p. 29). The psychologist Drever defined it as ‘original experiences’ which are recalled ‘as a new experience’ (1952, as cited in Stevenson, 1983, p. 2). In his turn, Stevenson defined it as “remembering a particular content, while forgetting how it was learned, or even that it was learned” (1983, p. 2). Brown and Murphy conducted three experiments to study this phenomenon and concluded that cryptomnesia occurs more in writing rather than in speaking (1989, as cited in Kellogg, 1999, p. 85). Consequently, one should be cautious whenever s/he recalls an idea in order not to fall in cryptomnesia. The best way to realize that is stating the sources appropriately.

According to Gipp and Meuschke (2011, pp. 1-2), five forms of plagiarism are distinguished: the first is ‘*copy and paste plagiarism*’; it is when the author copy and paste the whole work or a part from it. The second form is ‘*disguised plagiarism*’ when we hide plagiarism through four ‘masking techniques’: the first one is ‘shake and paste’ which occurs when a new text emerges after mixing various works by making some changes. The second technique is ‘expansive plagiarism’ when information is added to the plagiarised passage. The third one is ‘contractive plagiarism’ that is hiding plagiarism through summarizing. The fourth technique of disguised plagiarism is ‘mosaic plagiarism’ that implies the use of ‘different sources’ and ‘changing word order’ and using the ‘synonyms’ of words. The third form of plagiarism is ‘undue paraphrasing’ which means stealing ideas deliberately. The fourth form of plagiarism is ‘translated plagiarism’ that denotes “machine or human translation of paragraphs” and considering it as one’s own work. The fifth one is ‘idea plagiarism’ which includes stealing ‘research methods’, “argumentative structures and background sources” (Gipp & Meuschke, 2011, p. 2). Besides, Clough (2003, p. 2) mentioned the following six

forms of plagiarism: '1-word for word plagiarism, 2-paraphrasing plagiarism, 3-plagiarism of secondary sources, 4-plagiarism of form, 5-plagiarism of ideas, 6-plagiarism of authorship'. Plagiarism of secondary sources is when the author gets information from secondary sources. However, s/he cites them as original sources. The last form 'plagiarism of authorship' entails stealing the whole work by considering it as one's own work.

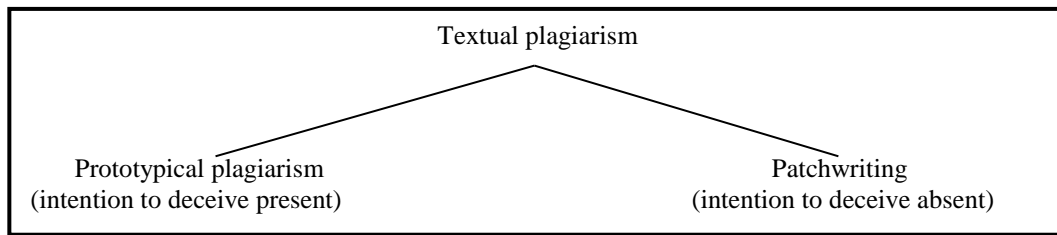
2.6. Types of Plagiarism

Two types are differentiated by Weber-Wulff: *single* versus *multiple sources* plagiarism (2014, p. 6). 'Single plagiarism' is when the writer copies from one reference while 'multiple sources plagiarism' is when s/he copies from many references. Larkham and Manns indicated that plagiarism has "degrees" in relation to the intention of the student, which makes it either *unintentional* or *intentional*. They explained too that unintentional plagiarism is due to 'poor scholarship' (2002, as cited in Sutherland Smith, 2008, p. 22). In this regard, Coyle and Law confirmed that plagiarism "ranges from careless omission of quotation marks or a citation to downright theft of another person's ideas or language" (2009, p. 87). So, the intention of the writer could make plagiarism either partial or complete. In this respect, Sutherland-Smith proclaimed that:

Plagiarism as a concept is complex and fraught with difficulties as teachers try to grapple to decide whether plagiarism is deliberate or not...The link between the concept of plagiarism as an offense and the punishments imposed arguably places plagiarism in the realm of academic criminal behavior...If plagiarism is categorized under the university penalty system as a quasi-criminal offense, then an important element of the offense is the intention of the perpetrator. (2008, p. 35)

As indicated in the previous quotation, it is hard to know if the act of plagiarism is intentional or not. More importantly, plagiarism is a crime that necessitates punishment. Accordingly, ‘the intention’ of the plagiarist should be investigated before judgment. Moreover, three types of plagiarists are indicated by Beasley (2007, p. 28): *accidental*, *opportunistic* and *committed/intentional*. The first one plagiarizes others’ words and content due to lack of knowledge about the nature of plagiarism and its avoidance ways. The second one is conscious of plagiarism but s/he plagiarizes others’ words whenever there is an opportunity. The third type is pre-determined to commit plagiarism.

Pecorari used the term *textual plagiarism* to indicate “the use of words and/or ideas from another source, without appropriate attribution” (2008, p. 4). Then, he divided it into two types. The first is ‘*prototypical plagiarism*’ which is “the use of words and/or ideas from another source, without appropriate attribution, and with the intention to deceive” (2008, p. 4). The second is ‘*patchwriting*’ which is defined by Howard as “copying from a source text and then deleting some words, altering grammatical structures, or plugging in one-for-one synonym substitutes” (1993, p. 233). In this respect, ‘*prototypical plagiarism*’ is intentional; however, ‘*patchwriting*’ is unintentional (Pecorari, 2008, p. 4). Surprisingly, Pecorari described the former as dishonest and the latter as honest (2008, p. 166). Hence, unintentional plagiarism is due to the lack of knowledge about citation styles. Nonetheless, we do not think that unintentional plagiarism is an honest act. The following figure illustrates the two types of plagiarism:

Figure 2.1. Types of Plagiarism

Note. Adapted from: Pecorari, 2008, p. 5.

2.7. Causes of Plagiarism

Plagiarism is due to a variety of causes. Tiffin and Rajasingham argued that the problem behind plagiarism is asking the student to finish his/her task on a short time (2003, p. 82). This implies that we should give students time to conduct their research by respecting intellectual properties. However, Paulos and Menager had an opposite view; they stated that the problem of time is seldom (2011, p. 7). This is due to the fact that students plagiarize others' works because of their lack of 'language proficiency and writing skills'. Some students argued that "if this is what I want to say, and I cannot say it better, why not use it the way it exactly is" (Ussoof et al., 2014, p. 64). Within this scope, Tracy asserted that plagiarism is due to 'low academic self-esteem' (2006, p. 138). This implies that students who have low self-esteem cannot trust their performance; therefore, they steal information which is easier than producing it. Paulos and Menager agreed with Tracy that plagiarism is due to the fact that "many students worry that their own words do not sound as professional as those used by the original author" (2011, p. 3). Thus, self-confidence is necessary to eliminate plagiarism, lower anxiety and ensure self-esteem. Besides, students are negatively affected by teachers who plagiarise since they are their "role models" (Ussoof et al., 2014, p. 64). So, plagiarism may be due to time constraints, low academic writing proficiency, low self-esteem and teachers' plagiarism.

The problem of plagiarism has increased with the rise of the new technological tools, namely the Internet. Tiffin and Rajasingham claimed that “the Internet has made it easy to find answers to assignments, find people who write assignments for a living and to copy other people’s work” (2003, p. 82). As announced by Lyons, Barrett, and Malcolm (2006, p. 57), plagiarism had existed before the discovery of the Internet but the latter has complicated the issue especially in the field of Higher Education.

Dawson and Overfield stressed the fact that students may sometimes be from different countries; hence, each student has his/her “academic background, age, social class, ethnicity and nationality, mode of study”, which affects his/her perception of plagiarism (2006, p. 2). Similarly, Caruana et al. revealed that plagiarism is related to ‘anomie’ which is low socio-economic status. They further stressed the importance of the enactment of a ‘code of ethics’ (as cited in Park, 2004, p. 296). Besides, Pecorari surprisingly uncovered that teachers expect international students to be plagiarists (2008, p. 12). This stereotyped view is due to multiple reasons, one of these reasons is the fact that in the culture of some countries plagiarising ideas is not a crime since plagiarism is influenced by ‘cultural background’ (Gu & Brooks, 2011, pp. 143-145).

Surprisingly, in some countries using others’ words demonstrates one’s rich knowledge (Lunsford, 2010, p. 284). Yilmaz, a non-native speaker, openly declared that plagiarism is just ‘borrowing sentences’. Yilmaz justified his view by declaring that “[e]ven if our introductions are not entirely original, our results are—and these are the most important part of any scientific paper” (as cited in Pecorari, 2008, p. 153). We think that this is a contradiction since the word ‘borrowing’ entails that you are using something which is not yours. Also, the justification proves incompetence in writing the theoretical parts without plagiarism and failure to use sources effectively.

Furthermore, students are indirectly trained to plagiarize because of ‘memorization and rote learning’. They do not know the difference between what needs to be cited and ‘common knowledge’ (Pecorari, 2008, p. 13). In this respect, a survey was made to evaluate Bioscience students’ knowledge of plagiarism at Manchester Metropolitan University and found that undergraduates do not have a clear idea about what plagiarism is exactly (Dawson & Overfield, 2006, p. 12).

Carroll pointed out multiple causes of plagiarism like students’ ‘choices’ to plagiarise (as cited in Sutherland-Smith, 2008, p. 23). Eventually, there are students who are *by nature* plagiarists. Furthermore, McCord maintained that plagiarism could be unintentional “because it is so easy to plagiarize” (2009, p. 605). In relation to this, Dick, Sheard and Hasen relied on focus groups’ interviews to gain information about students’ knowledge and causes of plagiarism and ways of avoiding it (2008, p. 164). They found that students plagiarise and think that ‘cheating is inevitable’ (2008, p. 167). Moreover, Dick et al. (2008) stated that many reasons are behind plagiarism such as: ‘laziness, financial pressure, family expectations, peer pressure, no connection to the degree’ (pp. 168-169). He added ‘internal conscience’ as another cause of plagiarism (2008, p. 171). In this context, White assured that:

If the goal of a paper is merely to show that the student has done work and read sources (‘retelling knowledge’), there is not much for the writer to do but summarize, paraphrase, quote—and plagiarize...few faculty bother to teach their students about the proper use of sources. (1999, p. 208).

As the quotation entails, White insisted on the need to teach students how to mention the sources of information. As mentioned by Sutherland-Smith, international students’ background knowledge or ‘prior learning’ could affect their integrity. When

students do not know the basic elements of English proficiency, they would become plagiarists (2008, p. 158).

According to Beasley (2004), plagiarism is due to ‘disorganization, information overload, ethical lapses, laziness, ignorance, fear, cryptomnesia and thrill seeking’. Students should be organized, teachers have to design syllabi that require less content by students. Also, they have to raise their awareness towards ethical considerations when conducting research. Additionally, students should be more active and self-reliant to search for sources and learn how to cite them so that they could overcome their fear of failure. Students too have to take into consideration unconscious aspects like cryptomnesia when they plagiarize unintentionally. ‘Thrill seeking’ implies that some students take risks to get better marks through plagiarism. In this case, students should realize that marks are not everything and that knowledge matters more than grades. As a conclusion, it is noticed that there are multiple causes behind plagiarism. Each student has his/her own reason that stimulates his/her dishonest acts.

2. 8. The Prevalence of Plagiarism in Higher Education

As agreed upon by many researchers, the problem of plagiarism is widespread in Higher Education (Sutherland-Smith, 2008, pp. 85-90; Klein, 2011, p. 98). Sutherland-Smith investigated students’ perceptions of cutting and pasting from the Internet. She revealed that “thirty-two percent” (32%) of students admitted that they copy and paste information from the Internet; the same percentage indicated that the meaning of plagiarism is not clear (2008, pp. 118-119). In its report of 2005, the *Centre for Academic Integrity* (CAI) surveyed 50,000 undergraduates in USA and found that seventy percent 70% of them committed plagiarism (as cited in Fawley, 2007, p. 74). Hayes and Introna (2005, p. 219) conducted a survey in the United Kingdom to compare students’ perceptions of plagiarism with those of international students from

Asia, China and Greece. They confirmed their assumption that plagiarism is due to students' cultural differences.

Fish and Hura conducted an electronic survey in New York to investigate students' perceptions and frequency of plagiarism. They discovered that from six hundred twenty-six (626) students who answered the online questionnaire, three hundred thirty-four (334) students uncovered that they were used to have assignments that are easy to plagiarize. Forty-three point seven percent (43.7%) of students argued that plagiarism of form is serious while fifty-one point two percent (51.2%) of students ensured that plagiarism of ideas is serious too (2013, p. 41). Besides, students confessed that forty-eight point five percent (48.5%) of their classmates occasionally used others' phrases (Fish & Hura, 2013, p. 40). Surprisingly, only thirty-two point six (32.6%) and eighteen point six per cent (18.6%) of students respectively claimed that they rarely plagiarize ideas and phrases (Fish & Hura, 2013, p. 39).

Halupa explored students' perceptions of self-plagiarism in the United States of America. He found that nearly sixty percent (60%) of students and faculty staff do not know the real meaning of self-plagiarism (2014, p. 123). Similarly, sixty percent (60%) of students said that it is unnecessary to cite for their 'previous unpublished works' while eighty percent (80%) of the faculty staff agreed that this act constitutes self-plagiarism (2014, p. 124). Surprisingly, it was declared that not only students are guilty of plagiarising but conference articles' authors too (Schleimer, Wilkerson, & Aiken, 2003, p. 76). Unfortunately, some teachers were also accused of plagiarism (Butterfield, 1991, as cited in Usoof et al., 2014, p. 53).

As a result, the wide spread of the phenomenon has led to its exploration in foreign universities. Several studies were conducted abroad to investigate its frequency and suggested causes. However, research about plagiarism in Arabic universities

especially Algerian universities is a newly-tackled issue. Studies about plagiarism detection in Arabic texts were conducted by Alzharni, Salim, and Abraham (2012); Menai (2012); Bensalem, Rosso, and Chichi (2013); and Beghoul (2014). In 2015, “the AraPlagDet” (Arabic Plagiarism Detection) was the first tool to search for plagiarism in Arabic texts (Abakush, 2016, p. 174).

Recently, the *Algerian Ministry of Higher Education and Scientific Research* has raised this issue by trying to prevent it and preserve academic integrity through its new anti-plagiarism code number 933 which was enacted in July, 28th, 2016 (Ministry of Higher Education and Scientific Research, 2016). This code explained what is meant by plagiarism and proposed several solutions for promoting academic honesty in Algerian universities.

2.9. The Effects of Plagiarism on Students’ Career

Plagiarism has serious results on students like course failure or dismissal, and cancellation of researchers’ qualifications and published books. This is confirmed by Lunsford in the following quotation:

Whether intentional or not, plagiarism can bring serious consequences. At some colleges, students who plagiarize fail the course automatically; at others, they are expelled. Academics who plagiarize, even inadvertently, have had their degrees revoked and their books withdrawn from publication. (2010, p. 284)

Eventually, plagiarism affects ‘independent thinking’ negatively. It may also lead to disciplinary sanctions, bad marks in assignments, ‘downgrading’, or doing the assignment again (Johnson & Scott, 2014, p. 72). Besides, it results in poor research quality and bad reputation, which damages students’ career since plagiarists violate others’ intellectual property. In Pontiac’s words, plagiarism is ‘identity theft’ (2007, p.

6). More importantly, plagiarism influences ‘the moral development’ of students (Bloch, 2012, p. 143). In the same line, Zgheib concurred that plagiarism “affects human creativity and knowledge, by making them think less and learn fewer” (2015, p. 191). This implies that plagiarism encourages laziness and lowers students’ devotion and perseverance.

2.10. Plagiarism Detection Instruments

The Electronic Age has made copying ‘easy’ while detection is hard (Gutbrodt, 2003, p. 26; Sutherland-Smith, 2008, p. 108). A simple traditional way to detect plagiarism is ‘comparing papers’ of students either to their classmates’ ones or to “published books and journal articles” (Davis, Drinan & Gallant, 2009, p. 110). Sometimes, detection could be easy when the teacher receives two typical works from students or when s/he notices that a student’s style is different from usual (Davis et al., 2009, p. 111). Sutherland-Smith (2008, p. 108) argued that using the Internet to detect plagiarism could be helpful through copying and pasting or writing the words of students in *Google* or another search engine.

Usouf et al. assured that: “the Internet and other technological resources have reduced plagiarism to merely a search, highlight, copy and paste, or some paraphrasing. Similarly, technology is now assisting the detection of plagiarism” (2014, p. 55). Seemingly, although the Internet has increased the problem of plagiarism, it could help academics to solve it. Hence, to put an end to the phenomenon of plagiarism, teachers have to use ‘electronic plagiarism detection’ (Pecorari, 2008, p. 150) or ‘automatic plagiarism detection’, that is to say, to rely on computer software programmes by looking for plagiarised words and comparing the written documents to the digital sources (Meyer zu Eissen & Benno, 2006, p. 565).

Marsh pointed out that the solution to plagiarism is ‘societal control’ in association with the use of ‘computers and software applications’ (2007, pp. 43-44). Software programmes of plagiarism detection are also called ‘text-matching software’, ‘plagiarism detectors’ and ‘plagiarism prevention tools’ (Carroll & Zetterling, 2009, p. 53). Marsh confirmed Bakhtain’s view that ‘the word’ is a personal property which can belong to the reader only when transformed into his own style according to his own perception (2007, p. 40). In this respect, Paulos and Menager concurred that electronic plagiarism detection could be effective in fighting this problem (2011, p. 7). McCord also advocated the use of detection software programmes to fight plagiarism (2009, p. 604). He added that plagiarism detection tools represent “new ways to improve the quality of academic work by verifying the authenticity of academic works and the accuracy of citations” (2009, p. 605). Therefore, we have to emphasize two major factors in assessing research quality: ‘authenticity’ and ‘accuracy’ through the use of the Internet.

Two main plagiarism detection approaches are identified by Gipp and Meuschke: *external* and *intrinsic* (2011, p. 2). The former tries ‘to compare’ the work with a ‘corpus of other works’ in order to look for any “literally matching text segments”; while, the latter checks its “linguistic features”. Strategies for external plagiarism detection are ‘substring matching’, ‘fingerprinting’, and ‘citation-based plagiarism detection’. Substring matching looks for plagiarism by searching for similar strings. Fingerprinting proves plagiarism is the most common strategy; it looks for plagiarism through making a fingerprint for each document that includes many substrings. Citation-based plagiarism detection necessitates the existence of citations and references within a document to check them. However, the most common strategy of intrinsic plagiarism detection is ‘stylometry’ which aims at spotting ‘changes in

writing style’ by checking: “lexical features on character level, syntactic features, structural features” (Gipp & Meuschke, 2011, pp. 2-3).

Detecting plagiarism electronically could be useful by using many engines, for example: the JISC Plagiarism Detection Service (JISCPDS) which is recently called “Turnitin UK” (Mottley, as cited in Dawson & Overfield, 2006, n.pag). The JISCPDS checked 1170 works of students in 2002 to find that eight point eight percent (8.8%) of the works consisted of more than twenty-five percent (25%) of plagiarised text. Surprisingly, seventy-five percent (75%) of the works were plagiarised (Graham & Hart, 2005, p. 158). The following table provides a list of plagiarism detection services and software:

Table 2.2

Plagiarism Detection Services and Software

Name of service	Website	Provider
iThenticate	www.ithenticate.com	iParadigms
Turnitin	www.turnitin.com	iParadigms
Safeassign	www.safeassign.com	Blackboard
Glatt plagiarism services	www.plagiarism.com	Glatt plagiarism services
EVE plagiarism detection	www.canexus.com/eve	CaNexus

Adapted from: Reynolds, 2014, p. 254.

To make an effective plagiarism detection algorithm, three characteristics should prevail as explained by Schleimer et al. (2003, p. 77). First, *whitespace insensitivity* which means that ‘text files’ should not be influenced by whitespace or punctuation and capitalization. Second, *noise suppression*, that is the need to create a large match to ensure that a word is plagiarized and it is not just a ‘common word’ such as ‘and’. Third, *position independence* which implies plagiarism detection is not affected by changing the order of paragraphs or sentences or by adding or deleting new information.

Six steps are identified in using ‘plagiarism prevention tools’. The first step is ‘submit it’, when the teacher asks the students to send their work via email or to the web page related to the course. The second step is ‘the tool will match it’, which is comparing the text to online databases and information. The third phase is ‘the tool will summarise it’ where the degree of plagiarism is indicated in percentages. In the fourth step that is ‘show it in a report’, the details of copying are clarified by indicating each copied text and its corresponding source. The fifth is ‘edit it’, the text is re-checked to delete the ‘bibliography’ that appears in the ‘final summary and report’ or even ‘re-submitted manually’ which will take extra time. The sixth or the last step is ‘report it or grade it’. The teacher has two possibilities: reporting the case to the ‘Disciplinary board’ or taking responsibility of the punishment (Carroll & Zetterling, 2009, pp. 62-63). Teachers have to know these steps; they also need training concerning the use of plagiarism detection software programmes/engines.

However, electronic detection has many obstacles such as the problem of unavailability of some books in digital format so that we cannot discover plagiarism (Meyer zu Eissen & Benno, 2006, p. 565). Pecorari added other constraints to electronic detection of plagiarism including “password-protected databases” and purchased essays which could not be accessed. Besides, when the document is scanned in online detection websites, it is difficult to compare the entire text to the whole text of the documents available online (2008, pp. 150-151). Thus, electronic detection is sometimes problematic (2008, p. 151). Surprisingly, Davis warned that some free online detection websites will upload your writing to ‘sell’ it later (2009, p. 353). Furthermore, some teachers do not know how to use plagiarism detection software programmes due ‘to the lack of practice’ (Chu et al., 2017, p. 121). We notice that although the plagiarism detection software could be often necessary and effective,

some electronic detection tools are not really efficient. Consequently, teachers should be cautious and selective. More importantly, teachers who ignore how to utilize the detection software should be guided or trained so that they could make use of them.

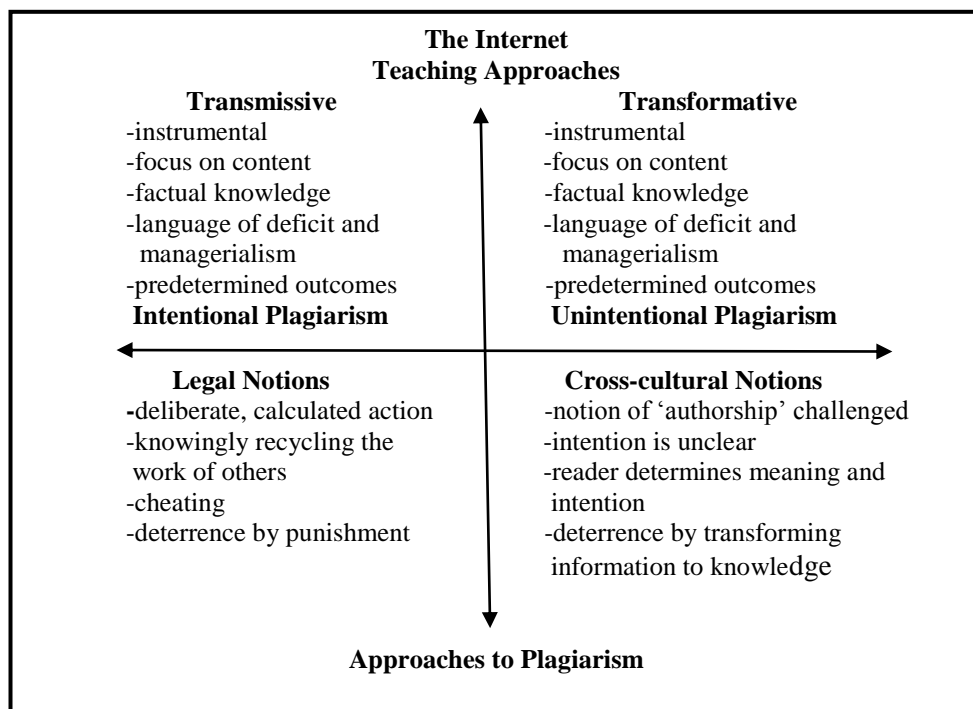
2.11. Models of Plagiarism

Interesting models for explaining plagiarism and helping academics detect and fight it were designed by scholars. The following three models are the most famous ones.

2.11.1. The Plagiarism Continuum (2008)

The *Plagiarism Continuum* explains the complex nature of plagiarism as follows:

Figure 2.2. The Plagiarism Continuum (2008)



Note. Adapted from: Sutherland-Smith, 2008, p. 29.

As illustrated in Figure 2.2, plagiarism is either intentional or unintentional where the Internet plays a crucial role. Also, plagiarism is controlled by two approaches: *legal* notions and *cross-cultural* notions. The former implies that plagiarism is intentional and perceived as cheating but it can be stopped through

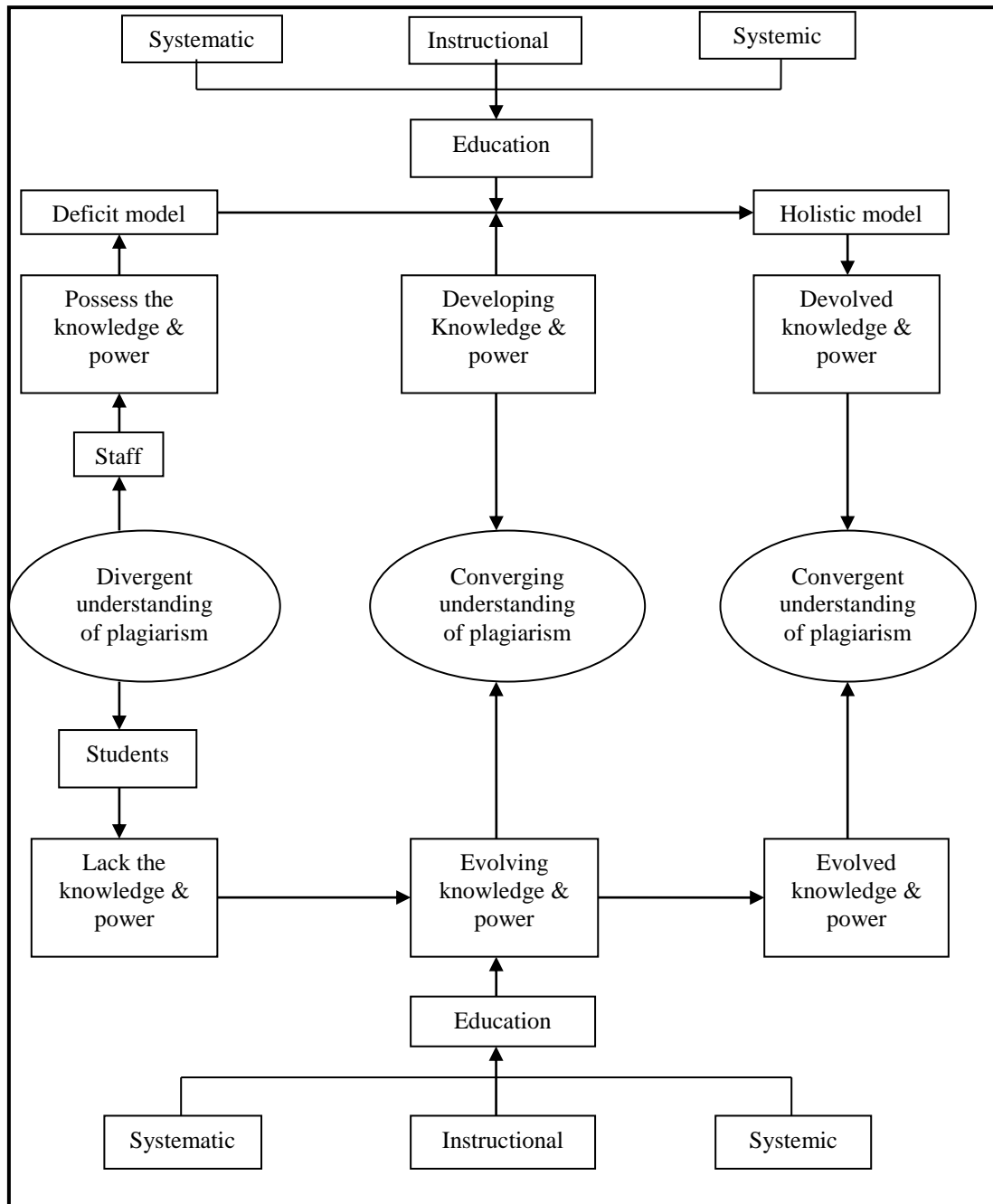
punishment. The latter depicts the diversity of cultural appreciation of plagiarism and the plurality of the notion of ‘authorship’. Two approaches of teaching prevail: *the transmissive approach* and *the transformative one* (Giroux, 1993, as cited in Sutherland-Smith, 2008, p. 30). As explained in the figure, the transmissive approach is ‘instrumental’ since it focuses on ‘content’ and ‘factual knowledge’ where ‘the outcomes’ of learning are ‘predetermined’. However, the trivial objective of the transformative approach is to ‘transform information to knowledge’. In this respect, the reader identifies meaning when s/he understands the text from his/her own perspective. So, different readers would assign different meanings to the structure.

According to Sutherland-Smith, the transmissive approach is ‘teacher-centred’ while the transformative one is ‘learner-centred’ (2008, pp. 31-32). From this perspective and as illustrated in figure 2.2, the transmissive approach encourages intentional plagiarism whereas the transformative approach promotes unintentional plagiarism. We induce that the teacher is blamed for the approach s/he adopts in teaching. A teacher-centred classroom where the content is more important than the process of learning could result in intentional plagiarism and violation of intellectual property. As a result, such a model could help teachers make self-reflection and self-evaluation of their own teaching skills.

2.11.2. Plagiarism Understanding Gradual Release Model (2013)

The following model explains plagiarism deterrence in relation to the type of education/instruction, on the one hand, and students’ understanding of plagiarism nature on the other hand:

Figure 2.3. Plagiarism Understanding Gradual Release Model (2013)



Note. Adapted from: Choo & Paul, 2013, p. 8.

Instruction about plagiarism is needed because students ignore how to avoid plagiarism and they are unable to deal with it. The role of the staff is to inform them about plagiarism and to punish them once they try to plagiarize others' works. Solving the problem of academic dishonesty is in the hands of the staff through investigating

the possible causes and methods behind this issue as well as looking for effective ways to raise students' awareness about it (Choo & Paull, 2013, p. 8).

The model is based on the idea that 'plagiarism education' could decrease the phenomenon of plagiarism. Two models are discriminated by Choo and Paull, *the deficit model* and *the holistic model*. The deficit model is due to unequal power of students in contrast to that of the staff which leads to 'divergence' in contrast to 'convergence' which is the aimed objective in a holistic model (Choo & Paull, 2013, p. 9).

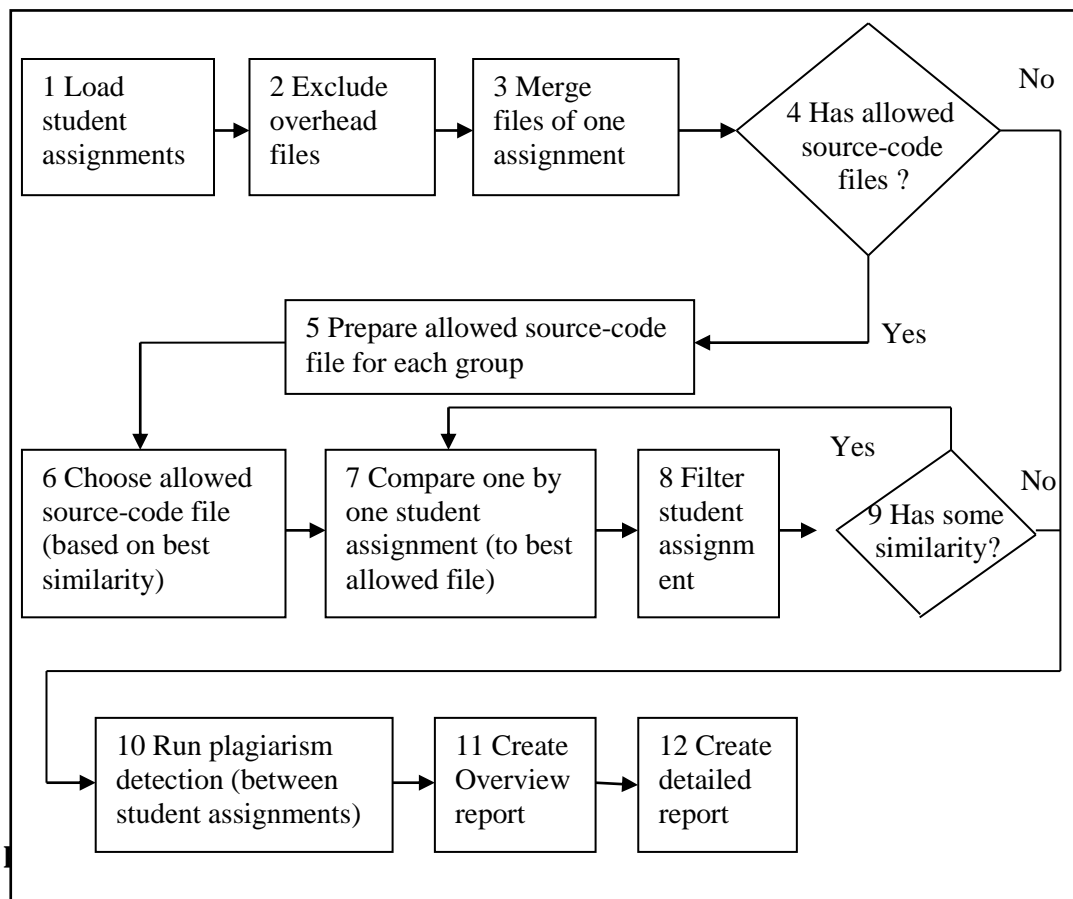
As illustrated in Figure 2.3., education has three aspects: *systematic*, *instructional* and *systemic*. Systematic education is based on making learners and the staff notice 'plagiarism detection software'. Instructional education stresses the importance of raising students' awareness about the meaning of plagiarism in order to move from the deficit model to the holistic especially through a reconsideration of 'assessment practices'. Systemic education is about explaining to the staff and the students their 'rights and responsibilities'. Students should be pre-informed about the possible punishments and the staff should apply the rules strictly (Choo & Paull, 2013, p. 9).

As a general comment, we highly appreciate the guidelines of the current model and the necessity of its application in a learning environment based on collaboration between the administrators and/or teachers on one side, and the students on the other. As far as preserving integrity is concerned, fighting plagiarism is based on mutual assistance. In this respect, we agree with Choo and Paull (2013, p. 9) that the administrators and teachers have more responsibility than students in stopping plagiarism through punishment and deterrence.

2.11.3. Plagiarism Detection Process Model (2016)

Concerning plagiarism detection software, the following model is introduced by Kermek and Novak:

Figure 2.4. Plagiarism Detection Process Model (2016)



Note. Adapted from: Kermek & Novak, 2016, p. 108.

As illustrated in Figure 2.4, the model encompasses twelve steps starting from *loading students' assignments* to writing the report. The second step '*exclude overhead files*' means omitting files which are 'unused'. The third step '*merge files of one assignment*' is when the teacher collects all the files of one student in one main file. Step four and five specify a 'source code' for each group in a separate file. In step six, the teacher chooses the file which goes in accordance with the student's assignment in order 'to compare' the two files in step seven ('source code file' and student file) by

using ‘*the plagiarism detection engine*’. The next steps eight and nine are about filtering the assignment through ‘deleting the similarities’ in all the assignments. Then in step ten, the ‘plagiarism detection engine’ is used again to avoid ‘similarities’. Plagiarism detection engines are defined as “programs that compare documents with possible sources in order to identify similarity and so discover student submissions that might be plagiarized” (Lancaster & Culwin, 2005, as cited in Kermek & Novak, 2016, pp. 105-106). Step eleven is ‘creating an overview report’ to indicate the ‘highest similarities’ by identifying the ‘similarity that is higher than 20%’ and the ‘similarity that is between 10% and 20%’. The last step twelve emphasizes writing ‘a detailed report’ including ‘file names’ and ‘source code blocks’ which indicate the similarities between ‘two student assignments’ (Kermek & Novak, 2016, pp. 107-108). As a result, the aim of this model is effective detection of collusion of two students or more through the use of digital engines/software programmes.

2.12. The Influence of the Internet on Academic Integrity

Preserving integrity in the Internet Age is a great challenge for both teachers and students due to the effect of technology which violates honesty and credibility especially through technology-based learning. In this respect, the British educator Ashby proclaimed that ‘computer-based educational technology’ is considered as ‘the fourth revolution’ after the ‘establishment of formal school’, ‘the invention of writing’ and ‘the printing press’ (1967, as cited in Sampath, Pannerselvam & Santhanam, 2007, p. 30). Technology and the Internet have raised the importance of knowledge in the Information Age, Cohen et al. argued that ‘information technology’ plays an influential role in the following quotation:

As information technology establishes itself in a centre-stage position and as society becomes increasingly dependent on information economically and functionally, so we realize just how important the concept of information is to us. It is important not only for what it is, but for what it can do. (Cohen et al., 2000, p. 70)

As mentioned in the previous quotation, information has become very important in this age so that people cannot live without it. What it can do is unlimited and unexpected. Besides, technology provides both teachers and learners with information which is used by students to ‘create projects and presentations’ (Ivers, 2003, p. 2). Similarly, Pecorari insisted that higher education is highly affected by ‘distance’ learning due to the positive effects of ‘information technology’. She further proclaimed that educational technology has an interesting impact on our perceptions of plagiarism as well as ways of avoiding it (2008, p. 154).

Computer-based teaching has become possible by linking computers together into one World Wide Web (WWW). Lewis (2009, p. 45) differentiated between the Internet and the WWW. The former is ‘a network of connected computers’ while the latter is “the part of the Internet where information can be accessed”. He explained the difference through the example of *emails* which are available in the Internet but not in the WWW because they represent a tool of communication not ‘accessing information’. The Internet has facilitated learning English by having access to ‘authentic’ documents (Li & Hart, 2002, p. 374). Lewis (2009, p. 45) described authentic documents by using the expression ‘real content’. He added that language in the Internet is “meaningful”, which makes learning ‘purposeful’. He declared that whenever learners conduct research in the Internet, they ‘construct’ new knowledge independently in a way that develops their critical thinking. Moreover, he (2009, p. 45) asserted that the Internet helps learners

to liberate their minds from teachers through self-reliance. Finally, surfing the Net is motivating due to its ‘cool’ nature.

Teaching foreign languages through the Internet in the classroom started in the nineteen eighties (1980s) by using ‘network-based activities and technologies’ (Warschauer & Whittaker, 2002, p. 368). Technology in the classroom is implemented through “the aid of a physical device, such as a computer or the Internet” (Mayer, 2010, p. 184). In Nunan’s words, educational technology “brings the world into the classroom” (2013, p. 73). Hence, *the technology-centred approach* is distinguished from *the learner-centred one* in the following table:

Table 2.3

Technology-centred versus Learner-centred Approaches to Learning with Technology

Approach	Focus	Role of technology	Goal
Technology-centred	What technology can do	Provide access to instruction	Use technology for learning
Learner-centred	How the human mind Works	Aid human learning	Adapt technology to promote learning

Adapted from: Mayer, 2010, p. 182.

As shown in Table 2.3, teaching through technology implies that we focus on “what technology can do” where the objective is “using technology for learning”, a technology whose role is to “provide access to instruction”. This could be done through the Internet which facilitates learning through multiple websites where learners can have access to rich information by uploading digital materials or reading them online. Meanwhile, the learner-centred approach focuses more on the functioning of the “human mind”, helped by technology where the aim is “adapting technology to promote learning” (Mayer, 2010, p. 182). The following table explains the role of technology in conducting ‘media research’ in contrast to ‘method research’:

Table 2.4

The Distinction between Media and Method in Learning with Technology

Type of research	Research focus	Research question	Example
Media research	Focus on physical devices	Which instructional medium is most effective?	Are computers more effective than books?
Method research	Focus on instructional Methods	Which instructional method is most effective?	Is discovery more effective than direct instruction?

Adapted from: Mayer, 2010, p. 189.

As indicated in Table 2.4, in ‘media research’, the central focus is on ‘physical devices’ and the best ‘instructional medium’. However, in ‘method research’; what is more important is investigating the best method for teaching with technology. Recently, educational technology has been more interested in providing classrooms with *Personal Learning Environments* (PLEs) where there are materials, tools and everything the learner needs to promote his/her own learning. They are a reflection of the learners’ interests which are claimed in their ‘self-generated profiles’ (Lewis, 2009, p. 87). Moreover, there is a move towards the use of ‘cloud computing’. The cloud stands for the Internet that includes information with no clear location. It is characterized by ‘safe storage’ of data in different places which makes its theft complicated (Lewis, 2009, p. 88). Consequently, we notice that educational technology is shaping the current classroom practices whatever is the method or the medium of instruction.

Using the computer in conducting research is very useful because it helps the students type their research and get data relevant to the topic by having access to the Net (Blaxter et al., 2006, p. 145). In this respect, Klein considered the Internet as a useful source for students to “improve the quality of their work”. Nonetheless, there are students who just ‘cut and paste’ since the WWW has made it easy for them to plagiarise (2011, p. 98). As a result, students plagiarize from both written and online documents. This is confirmed by Davis et al. who declared that: “although today’s students continue to plagiarize from printed sources and the work of other students as

did previous generations, the internet offers a new and apparently very appealing venue for securing term papers and reports” (2009, p. 101). This implies that there are more tendencies to plagiarize from online digital materials.

After its emergence in the nineties, Internet-Mediated Research (IMR) has reshaped the world of students’ research by having access to online data (Hewson, 2014, p. 423). They could have access to millions of websites easily (Blaxter, Hughes & Tight, 2006, p. 109). However, Bloch affirmed that “new technologies have created new forms of plagiarism” (2012, p. 3). In this respect, McKenzie used the term ‘new plagiarism’ to refer to plagiarism through the Internet (as cited in Klein, 2011, p. 98). Evans (2000) and Park (2003) revealed that the Internet has made plagiarism easier than before (as cited in Dawson & Overfield, 2006, p. 1). Lathrop and Foss used the term ‘cyber-plagiarism’ for copying from the Internet (2000, p. 18). Szabo and Underwood (2004) surveyed two hundred ninety-one (291) students in the United Kingdom about “plagiarism and the Internet”. They found that more than 50% of them used the Internet to plagiarise (as cited in Graham & Hart, 2005, p. 159). Consequently, the Internet has worsened the problem of copying. Online learning has facilitated plagiarism and has prevented the occurrence of learning which leads to bad ‘institutional reputations’ (McCord, 2009, p. 604). It is argued by Coyle and Law that:

Internet sources seem to be especially problematic, perhaps because it is easy to copy and paste material without taking the time to document it properly or perhaps because the material seldom has page numbers that can be used in parenthetical citations. (2009, p. 81)

As explained in the previous quotation, plagiarism is facilitated by the Internet through ‘copy and paste’ since many Web pages do not include page numbers. Reynolds used the word ‘explosion’ to depict the wealthy content of the Internet which

pushes the student to ‘cut and paste’ online passages or “to download entire term papers” (2014, p. 253). Students get ready papers from different sites like: (<http://www.1millionpapers.com>) and (www.chuckiii.com) (Davis et al., 2009, pp. 101-102). Consequently, the Internet is complicating the issue of plagiarism by “making the thieves more skilful” (Pontiac, 2007, p. 6). In this respect, Krause (2007, p. 10) pronounced that easy access is not an excuse to plagiarize others’ works.

2.13. Ways of Preserving Academic Integrity

As indicated by Davis et al., “combating academic dishonesty is a multifaceted and challenging issue” (2009, p. 107). There are two reasons why there is a need to look for solutions for the problem of ‘academic dishonesty’. The first is “the threat is to the essential mission of education, teaching and learning”; and the second is “student academic dishonesty is pervasive, far more pervasive than the other issues of corruption in education that come to public attention” (Davis et al., 2009, p. 164). Furthermore, Bailey declared that avoiding plagiarism is a necessity because of four reasons. First, plagiarism cannot increase ‘understanding’. Secondly, avoidance indicates respect of the ‘rules’ of intellectual property. Thirdly, technology facilitates discovering plagiarists. Fourthly, course failure or dismissal could result from plagiarism (2011, p. 31).

Moreover, some features of the curriculum which could help students avoid plagiarism are: helping them to distinguish ‘collusion’ from ‘collaboration’, explaining the exact nature of plagiarism, and teaching citation skills and “time management skills” (Dick et al., 2008, p. 177). The following subtitles are the most important *guidelines, strategies, and techniques* that may be used by teachers and students to avoid plagiarism in academic research:

2.13.1. Carroll and Zetterling's Strategies for Plagiarism Avoidance

Carroll and Zetterling provided 'a six-step deterring strategy' which may help teachers "design courses and programmes" that prevent plagiarism:

1. Inform students about plagiarism.
2. Provide early practice, early 'wake-up call'.
3. Teach students the skills they will need.
4. Structure the assessment process itself.
5. Authenticate (that is, check who did the work that is handed in)
6. Try formative use of software to check for copying. (2009, pp. 21-24)

As indicated in the previous quotation, the first step is to "inform students about plagiarism"; it is very helpful since it raises learners' awareness of the importance of integrity and plagiarism avoidance. This could be achieved through "lectures on academic writing and plagiarism" and 'written information' which will be checked and signed by students. Hence, it is a good way to warn students about plagiarism. Also, 'interactive teaching' in the classroom could attract learners' attention towards plagiarism especially through providing examples of ideal works and differentiating between integrity and plagiarized writing. 'Online tutorials' or websites where plagiarism is introduced may help learners understand what plagiarism is and what they should do to avoid it (Carroll & Zetterling, 2009, pp. 25-26).

The second step "provide early practice, early 'wake-up call' is really influential in avoiding plagiarism since practice could in parallel with feedback clarify the exact meaning of plagiarism and the norms of acceptable behaviour from the 'early' stages (Carroll & Zetterling, 2009, pp. 27-28). The third step is to "teach students the skills they will need"; it implies teaching learners writing skills as well as research skills for example: how to "use referencing and citation systems" (Carroll & Zetterling, 2009, p.

29). The fourth step “structure the assessment process itself” entails giving importance to learners’ engagement in the learning process by ‘doing’ the assessment. This could be realized by helping them to start and by evaluating their ‘progress’ (Carroll & Zetterling, 2009, p. 32).

The fifth step ‘authenticate’ by investigating who is the owner of the work represents an interesting factor since knowing to whom the work belongs is necessary before assigning grades. Two types of authentication are identified: ‘*authentication of the process*’ and ‘*authentication of the product*’. The former could be implemented through ‘workshops’, ‘regular meetings and supervision’; while the latter is conducted through ‘oral examinations’ and using ‘practical labs’ to make students ‘change’ their writing so that those who cannot are considered as plagiarists. Besides, authenticating the product is reached by invigilating examinations and ‘short scheduled laboratory reports’ which should be handed as soon as ‘the practical session’ ends (Carroll & Zetterling, 2009, pp. 34-36). The sixth step “try formative use of software to check for copying” advises the use of ‘text-matching tools’ or softwares for detecting plagiarism where ‘formative feedback’ plays a crucial role (Carroll & Zetterling, 2009, p. 37).

As a general comment, the previous six-step strategy is so practical and it could be highly effective in plagiarism avoidance because it is logical. Raising students’ awareness about the problem and teaching them the necessary research skills is a good starting point. Also, ‘engaging’ students in learning by doing the assignments as well as evaluating their work by using plagiarism detection software programmes could aid them reach academic integrity and preserve intellectual property.

2.13.2. Paulos and Menager’ s Guidelines for Plagiarism Avoidance

Paulos and Menager provided twelve ‘guidelines’ that may help students avoid plagiarism. They are cited in the following quotation:

1. Do your own work and use your own words.
2. Allow yourself enough time to research the assignment.
3. Keep careful track of your sources.
4. Take careful notes.
5. Make it clear who is speaking.
6. Credit the source.
7. Cite sources correctly.
8. Quote accurately and sparingly.
9. Paraphrase and cite.
10. Do not patchwrite.
11. Summarize.
12. Avoid using other students' papers and paper mills. (2011, p. 6)

As indicated in the previous quotation, to avoid plagiarism, the student has to use his own style and to allocate a suitable time for the task. Moreover, preserving academic integrity implies choosing reliable sources and a good way of note taking. Besides, the student should specify to whom the statement belongs as well as referencing, sourcing, citing, quoting and paraphrasing; the latter should be correct and not confused with 'patchwriting' which is changing statements by providing synonyms (Howard, 1993, p. 233). Finally, the student has to master summarizing techniques and ought not to cheat by using other students' works and pretending that they are his/her own work.

2.13.3. Paraphrasing, Summarizing and Quoting

Students do not know how to paraphrase; hence, they fall in what is called *patchwriting*. The latter is defined by Howard as "copying from a source text and then deleting some words, altering grammatical structures, or plugging in one-for-one

synonym substitutes” (1993, p. 233). However, Howard perceived patchwriting as a positive perspective by considering it as ‘a composing strategy’ which facilitates students’ understanding of new language input (1993, p. 233). So, Howard thinks that patchwriting is a beneficial step done by learners to grasp a new meaning. Levin and Marshall coined the term ‘*paraphragiarism*’ to refer to making slight changes when copying texts (1993, p. 5).

According to Shields, paraphrasing includes two main consecutive parts: ‘reading’ a passage and ‘rewording’ it. She also explained that it is forbidden to substitute words with their ‘synonyms’ and to keep the ‘structure’ as it is (2010, p. 107). In the same way, Bank explained that avoiding plagiarism does not imply merely looking for words’ synonyms but also changing the writer’s ‘style’ and ‘structure’ (2010, p. 208). Besides, Carter declared that paraphrasing is “to put an author’s ideas into your own words”. He added that paraphrasing is not keeping the same structure; it is rather “putting the author’s ideas into your own words yet maintaining the same ideas” (2013, p. 206). In this context, Marsh used the phrase ‘textual misappropriation’ to refer to failure in paraphrasing words (2007, p. 96). In the following table Carter differentiates between a good and a poor paraphrase:

Table 2.5

Good Paraphrase versus Poor Paraphrase

Good paraphrase	Poor paraphrase
-is the same length as the original	-is much shorter or longer as the original
-uses key terms	-does not use key terms
-references the author	-does not reference the author
-cuts out unnecessary information	-includes unnecessary information
-puts ideas into new wording that communicates the same point	-uses the same wording as the original (therefore it doesn’t paraphrase)
-includes all the major and minor supporting details.	-excludes some major and minor details

Adapted from: Carter, 2013, p. 208.

In Table 2.5, the difference between good and poor paraphrases is indicated. Effective paraphrasing entails keeping the same length as the original text and using key items while re-wording the text. In addition to that, it is required to delete useless 'information' while "including all the supporting details".

Concerning summarizing, it is defined as "reducing the length of a text by retaining the main points" (Bailey, 2011, p. 33). A student could summarize a passage by writing only the basic elements in his/her own words. Summarizing could be effective if used in parallel with paraphrasing. Unlike paraphrases, quotations are 'word for word' or 'verbatim reproductions' (Marsh, 2007, p. 96). They imply "bringing the original words of a writer into your work" (Bailey, 2011, p. 65). Quoting is used when the words of the author express the meaning more effectively than rewording. It is utilized for the purpose "of trying *not* to slip into a form of ventriloquism in which you can no longer tell the words of others" (Harris, 1997, as cited in Marsh, 2007, p. 94). Apparently, when the writer is unable to paraphrase a passage perfectly, s/he would better use quoting as a second option. Bailey cautioned that quotes must not be used too much (2011, p. 33). Thus, writers should be careful in case of quoting and summarizing or they may fall in plagiarism (Blaxter et al., 2006, p. 246).

2.13.4. Citation and Referencing

Students may plagiarise because they ignore the rules of in-text citation and referencing or due to lack of practice of these rules (Chu et al., 2017, p. 121). In-text citation in MLA (Modern Language Association) and APA (American Psychological Association) could help the student preserve integrity. The MLA necessitates mentioning the author and page (Lunsford, 2010, p. 302) while the APA includes the author, date and page (Lunsford, 2010, p. 350). Therefore, the former is commonly called *author-page* style whereas the latter is labelled *author-date-page* style. Pecorari

(2008, p. 37) argued that “avoiding plagiarism entails knowing how to use sources appropriately”. In this respect, Green (2002, p. 174) referred to the ‘norm of attribution’ which is to ‘attribute’ words to their original writer in order to avoid plagiarism. According to Chu et al. (2017, p. 121), *citation machine* could help beginners understand techniques of citation easily.

Concerning ‘referencing’, Blaxter et al. declared that plagiarism is either deliberate or not and it is due to ignorance “of the appropriate conventions for referencing other people’s work” (2006, p. 246). Knowledge of citation styles is helpful in fighting plagiarism. For example, Coyle and Law indicated that plagiarism can be overcome through MLA citation (2009, p. 85). Hence, referencing is important because it enables the reader to check the validity of information (Shields, 2010, p. 115). Correspondingly, Bailey maintained three causes that necessitate in-text and bibliography citation. Firstly, the aim is to make your research a valuable piece of information. Secondly, there is the need to enable further investigation by the ‘reader’ who could have access to ‘details’. Thirdly, and more importantly citation could preserve academic honesty (2010, as cited in Chu et al., 2017, p. 121). Chu et al. admitted that the goal towards teaching students correct citation and referencing is practiced through ‘inquiry-based tasks’ (2017, p. 121).

2.13.5. Assessments’ Design

Carless et al. indicated two types of assessment: *assessment of learning* and *assessment for learning*. The former evaluates the learning process as a whole whereas the latter is beneficial for the learner as it helps him/her improve his capacities (as cited in Nunan, 2015, p. 168). Hence, assessments should not be considered as an end in themselves which could help teachers just to test learners’ knowledge, but also as a tool for learning (Coffman, 2009, p. 112). More importantly, it would be interesting if

learners' activities about using sources were assessed and given feedback. In this respect, Pecorari claimed that:

Assessment should also be in alignment with learning objectives and activities; in terms of source use, it means that students' attempts to write from sources must be assessed, and on formative assessment activities in particular students should receive feedback which comments directly on their use. (2008, p. 145)

As a consequence, citation should be a part of the syllabus and course objectives so that it could be exposed to evaluation. Both syllabus designers and lesson planners have to take into consideration source use. Eventually, it is acknowledged that plagiarism and assessment are inter-related so that 'bad assessment' leads to 'easy and accessible plagiarism' (Usoof et al., 2014, p. 64). Therefore, Wilhoit (1994, as cited in Pecorari, 2008) advised teachers "to ask students to provide their sources, or at least some of them" (p. 145).

One ought not to 'blame technology' because plagiarism is 'our creation' (Bryan & Clegg, 2006, p. 219). As a result, teachers should not give homework which could be easily uploaded from the Internet (Sokolik, 2000, as cited in Pecorari, 2008, p. 145). By doing so, they would "promote originality and complicate plagiarism" (Usoof et al., 2014, p. 71). Besides, teachers should not give the opportunity for students to plagiarize through designing assignments and quizzes which promote 'memorisation' and encourage passive learning that include no 'reflection' (Maggi, 2003, p. 68). Maggi insisted that collaboration through group work necessitates giving "reflections on the team progress and process" by students to avoid collusion (2003, p. 68). In other words, teachers' design of the assignments' questions could encourage academic dishonesty and make the issue more disastrous.

2.13.6. Honour Codes and Sanctioning Plagiarists

An *honour code* in each university is necessary to promote integrity and avoid plagiarism. Many universities have introduced an honour code which is presented on their websites to warn students about this issue. For example, *Stanford University* started working with an honour code in 1921 (Usoof et al., 2014, p. 73). Hence, there is a less tendency for students to plagiarize with the existence of an honour code (McCabe & Trevino, 1993, p. 531). In addition, ‘codes of conduct’ play the role of “prevention strategy for plagiarism” (Strittmatter & Bratton, 2016, p. 11). In this respect, students have to read and sign the honour code and promise that they will obey the rules either before a whole module or before a homework (Pecorari, 2013, p. 47). To ensure that plagiarism will be avoided, a *plagiarism pledge* (*See Appendix H for the French Version of the Algerian Plagiarism Pledge*) has to be signed by students before handing their works (Berdan & Goodman, 2016).

Richardson declared that plagiarism is a very difficult phenomenon to overcome (as cited in Sutherland-Smith, 2008, p. 23). To avoid plagiarism, Mallon insisted that plagiarists should be sanctioned (1989, as cited in Howard, 1999, p. 8). Sanctioning is effective in avoiding plagiarism and is more important than counting the ‘frequency of plagiarism’ (Standler, 2012, p. 13). With the prevalence of punishment, few students were proved to be guilty and the most common penalties as indicated by Davis et al. (2009) were: ‘failure’ of the task or the module, ‘dismissal’, ‘ethics workshop’, and ‘temporal suspension from the institution’ (p. 116).

2.13.7. Enhancing Students’ Academic Writing Skills

Students plagiarize because they do not know how to write effectively (Lathrop & Foss, 2000, p. 251; Sutherland-Smith, 2008, p. 182). Hence, students’ writing skills should be enhanced to help them avoid plagiarism especially international ones (Usoof

at el., 2014, p. 74). Within this scope, effective academic writing is the result of ‘extensive practice’ which requires both ‘awareness’ and ‘action’ (Singh & Lukkarila, 2017, p. 3). Equally important, scaffolding may be used as an effective strategy in teaching writing. Help is given by the teacher who withdraws gradually when s/he feels that the student starts to develop self-reliance (Hyland, 2009, p. 118). Also, students have to rely on themselves to improve their writing through the use of technology and electronic feedback (Hyland, 2009, pp. 122-123). Eventually, technology could foster students’ efficiency of academic research through CMR (Computer-Mediated Research) which could raise language proficiency (Mackey & Gass, 2005, p. 75). More importantly, they should be competent in word processing which is better than traditional writing that necessitates many drafts when revising (Creme & Lea, 2008, p. 10).

Writing assignments may be very influential in raising students’ writing proficiency; therefore, the teacher has to design ‘effective’ and ‘thoughtful’ assignments (Clark, 2011, p. 442). Furthermore, the student should understand what s/he has to do in a writing assignment. Creme and Lea identified five points students have to do to make sure that they have understood the written assignment:

1. Write down in your own words what you think the assignment is asking you to do.
2. What do you already know about the subject matter of the assignment?
3. What do you need to know to help you to complete this assignment?
4. How do you think this assignment differs from or is similar to other assignments that you are working on at the moment?
5. How are you going to choose your reading material? (2008, pp. 42-43)

As indicated in the previous quotation, students' answers to the first question would help them get what they ought to do in the assignment. The second question probes students' information about the content of the module. The third question asks for further explanation or clarification needed by the student. The fourth question tackles any similarities about the current assignment and other assignments the student is dealing with. The fifth/last question explores students' techniques of selecting the needed materials. In sum, the five questions represent an attempt to investigate the students' understanding of the homework in order to provide more explanation whenever needed by students.

Conclusion

With the emergence of technological tools and Technology-based Learning, there is a growing tendency by students to plagiarize others' works through Internet-mediated Research. Millions of Websites are providing a rich source of knowledge from which students could do assignments quickly and easily. Consequently, plagiarism destroyed academic integrity in Higher Education; hence, teachers as well as administrators are struggling to put an end to this phenomenon and restore ethical conduct of research.

Encouraging students to develop their research skills as well as their devotion to preserve integrity could help them avoid plagiarism. Undergraduates should rely mainly on themselves to promote their capacities in conducting research. The first step towards autonomous research and integrity is building a general English proficiency because students cannot write a valuable piece of research without a considerable knowledge of grammar, vocabulary and lexis. Mastering the writing skill is the heart of academic research by focusing on the techniques of reporting research findings. This could be realized by training students to use their own words and respect the techniques

of paraphrasing, citation, quoting, and referencing through an extensive practice of them. Eventually, teacher-student collaboration is efficient in promoting independent research and effective learning because research-based learning facilitates the process of understanding.

Sanctioning students for committing plagiarism would inhibit them and direct them to write in their own words. Absence of sanctions can increase academic dishonesty and lead to more plagiarized works until academic dishonesty becomes a habit that facilitates research for students. Hence, students should benefit from the positive side of the Internet by searching for reliable information that makes them understand citation styles. Teachers too have to benefit from the digital software programmes which could help them detect plagiarism.

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Chapter Three

Autonomous Learning

“I am always ready to learn, although I do not always like to be taught”

(Winston Churchill, 1974, p. 180)

Introduction

It is observed that some students are successful no matter what method is followed by the teacher. This may be due to the fact that those students are no more passive; they contribute actively in the learning process because they use active *learning strategies* mainly the meta-cognitive ones which imply a highly independent student who usually relies on self-control and self-regulation. In this chapter, light is shed on the concept of autonomous learning by exploring its history and origin. Hence, philosophical perspectives of the notion of autonomy are discussed as well as its theoretical framework. More importantly, the role of the “Centre de Recherches et d’Applications en Langues” in the emergence of autonomy is reported. In addition to that, the definitions of autonomy and the terminology related to it are reviewed. In this respect, the concept of autonomy is distinguished from independent learning and freedom. Furthermore, different dimensions of autonomy are explored as well as its degrees and types.

Moreover, approaches to autonomy are overviewed. Besides, the characteristics of the autonomous learner are probed. After that, data is gathered about factors that could promote students’ autonomy. Then, stages in the development of learner autonomy are described. What is more, autonomy is introduced as a measurable variable and the scales used for measuring it are inspected. Finally, some models of learner autonomy are explained.

3.1. History and Origin of Autonomy

Before its emergence in education, the term ‘autonomy’ had a direct relation with political, social and moral philosophy.

3.1.1. Autonomy in Political, Social and Moral Philosophy

Autonomy first appeared as a political concept, it originated from the two Greek terms: ‘autos’ which means ‘self’; and ‘nomos’ that denotes ‘rule or law’ (Dworkin, 1988, p. 12). A city has ‘autonomia’ whenever its citizens create their ‘own laws’ (Dworkin, 1988, p. 13). In this respect, Berofsky commented that self-rule or control is equivalent to ‘political independence’ (1995, p. 9). Nearly the same idea was pointed out by Oxford who claimed that autonomy has its roots in the Greek word ‘autónomos’ which indicates “living under one’s own laws, self-governing” (2003, p. 80). Consequently, the concept of autonomy denotes “freedom of religion and conscience”. Later, it indicates “the emancipation and the liberation” from dictatorship in political and ‘social life’ (Autiero & Galvagni, 2010, p. 134).

Thanks to Kant, autonomy gained a moral meaning in addition to the political one. Kantian perspective of autonomy had its roots in the philosophy of Plato and Aristotle. Plato considered ‘rational self-rule’ as a human characteristic while Aristotle stressed the freedom of “choice and rational deliberation” (as cited in Treiger-Bar-Am, 2008, p. 554). In moral philosophy, morality is based mainly on autonomy. This is proclaimed by Kant who argued that “autonomy is the sole and supreme principle of morality” (as cited in Sensen, 2013, p. 262). He further explained that “autonomy of the will is the foundation of morality” (as cited in Reath, 2006, p. 121). Therefore, moral laws are created by individuals and spring from their own will. Interestingly, Kant considered autonomy as ‘self-legislation’ (as cited in Sensen, 2013, p. 268). In this respect, an individual is “subject only to self-imposed requirements”, which means

that s/he is 'sovereign' (Reath, 2006, p. 122). The same idea is confirmed by Berofsky who declared that "autonomy remains a component of the moral life insofar as the reflections of individual persons are not automatically constrained by the context of particular community and tradition" (1995, p. 7). Hence, moral autonomy is internal so that it is related neither to the environment nor to others' rules. In contrast, Kant stressed the fact that when an individual's moral values are external this would lead to heteronomy--the opposite of autonomy (as cited in Reath, 2006, p. 128).

Concerning the difference between *autonomy* and *freedom*, Kant explained that "autonomy is a property of the will"; whereas, freedom is "the form of causality characteristic of rational agency" (as cited in Reath, 2006, pp. 152-153). Thus, freedom is related to individual's free performance. Here, autonomy is a prerequisite for freedom which represents one's actions following the moral values (Kant, as cited in Reath, 2006, p. 153). Freedom in learning entails 'self-directiveness' which includes 'decision making', 'choice of learning activities' and ways of 'self-assessment' as far as the objectives are concerned (Trebbe, 2008, p. 33).

Principles of moral philosophy that consider the individual as the sole creator of moral laws led to the emergence of *social autonomy* that urges the creation of 'social order' by respecting the legislated moral values. Hence, people are "subject to socially applied norms" that are 'universal' (Kant, as cited in Reath, 2006, p. 174). In social philosophy, autonomy is viewed by Oshana as "a matter of having a stable status of a particular type" (2015, p. 3). She further explained that autonomy is 'self-determination' (2015, p. 4). In this context, one's freedom is not restricted or influenced by others' norms. For example, following the linguistic rules of speaking does not hinder communication. On the contrary, it makes it more fluent and accurate and it shows speakers' high proficiency (Reath, 2006, p. 177). The enactment of moral

legislations which are shared with others is the underlying framework within Kant's *Moral Constructivism* since the 'rational' and 'free' individual *constructs* moral values through collaboration with others who are also considered as 'legislative members' (Reath, 2006, pp. 198-199).

As a result, human autonomy has multiple dimensions in philosophy encompassing the political, social and the moral ones. It reflects one's sovereignty and ability to enact moral rules and preserve freedom of action in a social context where moral values and norms are shared and respected. These tendencies have contributed to the emergence of autonomy in education.

3.1.2. A Theoretical Framework of Autonomous Learning

Autonomy as an educational approach was influenced by many approaches and theories as explained in the following subtitles.

3.1.2.1. The Social Cognitive Theory

Bandura's Social Cognitive Theory (SCT) (1986) "recognizes that human behaviour is intentional and is influenced by the environment and cognitive processes". It is based on 'self-regulation' and 'self-reflection' (as cited in Ponton & Rhea, 2006, pp. 38-39). Individuals' observation and cognitive interpretation of others' actions and their own actions make them motivated to behave in different ways. Hence, autonomy within this theory "describes situations in which thought, independent of environment, predetermines actions" (Ponton & Rhea, 2006, pp. 39-40).

Three types of 'agency' are distinguished by Bandura: '*mechanical, autonomous, and emergent interactive*'. *Mechanical agency* is based on behaviourism where action is a mechanical response for the environment stimuli. *Autonomous agency* entails that one's actions are the result of his/her thoughts not the environment. *Emergent interactive agency* views human actions as a complicated process which

results from many interfering factors including the environment and one's thoughts (1986, as cited in Ponton & Rhea, p. 40). Furthermore, Bandura (1997, as cited in Ponton & Rhea, p. 40) argued that the individual's actions necessitate 'self-efficacy' since individuals act according to their own beliefs about themselves. Bandura (1994, p. 71) defined 'perceived self-efficacy' as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives". So, it is to believe in what one could do. Assessment of one's self-efficacy is got from 'past experiences', 'physiological/affective reactions' to one's actions, 'others' experiences' and 'others' verbal persuasion/feedback'.

3.1.2.2. The Constructivist Approach

The idea of autonomy is derived from *the Constructivist approach* to learning where learners are autonomous because they construct knowledge for themselves. They are active in the learning process through the use of their 'mental processes' (Pritchard, 2009, pp. 3-4). Pritchard stated that "we learn best when we actively construct our own understanding" (2009, p. 17). This entails the role of the learner as an active participant in his/her own learning process.

Piaget's ideas about child development have shaped *cognitive constructivism*. According to Piaget, children are enrolled in a four-stage development process. The first stage is 'the sensori-motor' stage (0-2 years) where the child learns through 'reflexive behaviour'. The second stage is 'the pre-operational stage' (2-7 years) in which children perceive knowledge only from their own perspective. The third stage is 'the concrete operational stage' (7-11 years) when children start to think logically. The fourth and last stage (11 years and more) is the stage when 'abstract' thinking starts (as cited in Pritchard, 2009, p. 19). Moreover, Piaget considered learning as a process of 'adjustment' to newly emerging situations. Adjustment is composed of two factors:

‘assimilation’ and ‘accommodation’ (as cited in Pritchard, 2009, p. 19). The former is when new knowledge is added to pre-existing knowledge; whereas, the latter is when new knowledge contradicts with the old one, which would result in a ‘conflict’ that could be solved to reach ‘equilibration’ (as cited in Pritchard, 2009, p. 20).

Piaget’s ideas inspired Vygotsky’s development of *social constructivism* where ‘social interaction’ plays a crucial role in learning (as cited in Pritchard, 2009, p. 24). The teacher could initiate ‘dialogue’ so that learners could participate in conversation to develop ‘understanding’. The process of providing help is called ‘scaffolding’ which is related to Vygotsky’s ‘zone of proximal development’. The latter is ‘the level of understanding’ the learner needs to reach in the next stage with the help of the teacher (Pecorari, 2008, p. 25). In addition to that, the constructivist approach considers learning as a ‘situated process’ where learning is related to the context and emphasizes the role of ‘metacognition’ when the student takes an ‘active control’ of his/her own learning because s/he is aware of his cognitive processes (Wray & Lewis, 1997, as cited in Prichard, 2009, pp. 27-28). This implies that metacognition in the constructivist approach stresses the idea of ‘control’ and responsibility which are essential elements in autonomous learning. Therefore, constructivism encourages problem-solving, reflection and autonomy (Prichard, 2009, pp. 32-33).

3.1.2.3. Experiential Learning

Experiential Learning or ‘learning from experience’ is influenced by Piaget’s cognitive development theory (as cited in Kolb, 1984, p. 25) and the philosophy of Lewin and Dewey who advocated ‘observations and reflections’ about ‘concrete experiences’ and ‘immediate action’ to reach one’s ‘purpose’ (as cited in Kolb, 1984, pp. 21-22). It is defined as “the process whereby knowledge is created through the transformation of experience”. This entails that the process is more important than the

‘content or outcomes’. Here, transformation denotes enduring change and adjustment (Kolb, 1984, p. 38).

Experiential learning is also defined as “the insight gained through the conscious or unconscious internalization of our own or observed experiences which build upon our past experiences or knowledge” (Beard & Wilson, 2002, as cited in Moon, 2004, p. 108). This implies that ‘past experiences’ need to be observed and evaluated either consciously or unconsciously so that modifications could be implemented. Eventually, learning from experience is based on ‘observation and reflection’ (Usher & Soloman, 1999, as cited in Moon, 2004, p. 104). Nunan (2015, p. 25) also confirmed that self-reflection is a core element in experiential learning and learner-centredness.

Experiential learning is considered by Boydell as ‘meaningful-discovery learning’ (1976, as cited in Moon, 2004, p. 108). It promotes autonomy through self-control and responsibility (Griffin, 1992, as cited in Moon, 2004, p. 109). The student is an ‘active participant’ in a discovery-oriented environment. Actually, the teacher is not completely detached because s/he acts as a guide and a facilitator (Vaidya, 2009, p. 131). In summary, self-control and responsibility lie in the heart of experiential learning.

3.1.2.4. The Humanistic Approach

The humanistic approach came as a reaction to behaviourist, scientific and Freudian ‘psychodynamic’ psychologies. It gives importance to ‘human values’ and ‘basic needs’ to achieve ‘actualization or growth’ of the ‘real self’ towards the discovery of ‘what’s already’ in one’s self. Hence it is based on “self-discovery, self-acceptance and self-making” (Maslow, 1968, pp. 688-689). Maslow further explained that new cognitive ‘learning experiences’ coincide with ‘personal growth’ when the

role of the teacher is to help the learner know himself/herself because self-discovery would make learners aware of their own learning 'styles' and 'aptitudes' (1968, pp. 693-694). This approach highlights the learner's emotions and ideas. It is interested in 'self-actualization and self-esteem' (Maskowitz, 1978, as cited in Richards & Rodgers, 2001, p. 90). This entails that the humanistic approach encourages autonomy through self-discovery and free behaviour.

According to Heylighen, Maslow's humanistic theory needs to take into consideration 'a goal-directed action' because cognition necessitates 'an autonomous system' (1990, as cited in Heylighen, 1992, p. 46). The latter was defined by Heylighen as "a system which is able to actively maintain or reconstruct its basic organization...by counteracting or compensating the perturbations, induced by changes in the environment, or by internal processes" (1992, p. 46). So, external or internal factors could make imbalances in 'identity' and affect autonomy. Besides, Heylighen argued that 'compensating' implies using 'problem-solving' skills to eliminate 'perturbations' and achieve balance. However, he insisted that an autonomous system should be 'dynamic' rather than balanced and constant (1992, p. 46). Thus, 'urgency' is the key towards classifying needs in terms of priorities. Urgency is affected by two main 'context-dependent' factors: 'probability' and 'duration'. Yet, urgency is based on one's own perceptions and thought, which makes it highly 'subjective' (Heylighen, 1992, p. 49).

Furthermore, Heylighen (1992, p. 50) approached self-actualization from a new perspective. He proclaimed that it is based on three 'components'. The first one is 'material competence' or 'the needed resources' which one should possess to solve problems. The second one is 'cognitive competence' that is the ability to 'apply' the possessed materials. The third component is 'the subjective awareness' of competence.

It is fulfilled when a person is self-confident of his/her abilities to solve the problem. Personal judgments are related to ‘self-efficacy expectancy’ (Maddux, 1991, as cited in Heylighen, 1992, p. 56).

3.1.2.5. The Silent Way

The silent way is a method introduced by *Caleb Gattegno*. It advises teachers to be silent whenever possible so that learners could interact using the language. It advocates ‘problem solving’ and the use of ‘physical objects’ like ‘colour charts’ and ‘rods’. The silent way views the learner as a discoverer of the language since s/he is involved as advised by Benjamin Franklin: “Tell me and I forget, teach me and I remember, involve me and I learn” (as cited in Richards & Rodgers, 2001, pp. 81-82).

The silent way focuses on the psychological notion ‘learning to learn’ by avoiding repetition and encouraging ‘attention’ and ‘self-correction’ (Richards & Rodgers, 2001, p. 83). Learners in this approach should be autonomous (Nunan, 1989, p. 80). Hence, the silent way advocates learning autonomy through the use of problem-solving skills and self-correction especially when the learner feels engaged in classroom tasks. However, it neglects the communicative dimension of language and supports the structural one through learning grammar inductively (Richards & Rodgers, 2001, p. 82).

3.1.2.6. Community Language Teaching

Community Language Teaching (CLT) was introduced in the early 1970s by *Curran* who is a specialist in counselling and a professor of psychology (Baker & Jones, 1998, p. 681). It is a ‘humanistic’ method of teaching which advocates ‘psychological counselling’ by the teacher as well as peers’ support in the ‘the community’ which includes both peers and the teacher (Richards & Rodgers, 2001, p. 96). Curran’s student *La Forge* (1983) elaborated CLT by adding an interactional

dimension where language is considered as a ‘social process’ (as cited in Richards & Rodgers, 2001, p. 91).

In CLT, learners are allowed to utilize the mother tongue and express their feelings; then, the teacher translates their statements into the foreign language. Thus, the current method is considered as a learner-centred one which helps learners promote autonomy through gradual detachment from the teacher (Richards & Rodgers, 2001, p. 91). Detachment entails self-reliance and the move towards autonomous learning by enhancing responsibility, self-regulation and self-control where the teacher is just a facilitator.

3.1.2.7. The Communicative Approach and Learner-centredness

Communicative Language Teaching (CLT) is an approach that was developed in the late 1960s. It fosters autonomous learning through its ‘psycholinguistics notion’ that the aim behind learning a language is communication (Allwright & Hanks, 2016, p. 46). Also, CLT promotes autonomy by advising the teacher to “be extremely supportive, but primarily of learners’ struggles towards independence from the teacher and towards peer interdependence” (Allwright, 1976, as cited in Allwright & Hanks, 2016, p. 46). Dell Hymes coined the concept of *communicative competence* in ‘the mid-1960s’ which was later used by *Sandra Savignon* to refer to learners’ interaction and creation of meaning (as cited in Nunan, 2015, p. 52).

Autonomy aroused within the new perspectives towards learner-directed learning during the 1960s and the 1970s. The ‘school-based curriculum development movement’ gave more importance to learners’ needs and interests and resulted in the ‘learner-centred movement’ (Nunan, 2015, p. 16). By contrast, the ancient teacher directed-classroom viewed students as passive observers of the teacher as if, as Henner-Stanchina and Riley commented, “simple bodily presence is all that is required from

them” (1978, as cited in Hedge, 2000, p. 84). One year later; Holec advocated the ‘autonomization’ of learners which includes many aspects such as ‘self-monitoring’ and ‘self-evaluation’ (1979, as cited in Hedge, 2000, p. 84). Holec means that the learner is responsible for his learning process and able to evaluate his/her level so that s/he can know his/her weaknesses to overcome them. Consequently, s/he can improve his/her competence. Brookes and Grundy (1988, as cited in Benson, 2011a, p. 13) related autonomy to ‘individualisation’ that implies learners’ centeredness. The latter is contrasted with ‘programmed learning’ when the teacher sets up a programme to direct learning (Benson, 2011a, p. 13). In this respect, Richards and Rodgers confirmed that learner-centredness is a dimension of CLT which considers the learners as influential members in ‘the design of methods of instruction’ (2001, p. 158).

The old teacher-centred curriculum viewed the teacher as the most responsible for the achievement level of learners either bad or good whereas the new learner-centred curriculum considers the learner as responsible for his/her learning (Chall, 2000, p. 7). Higgs maintained that the learner was ‘highly dependent on the teacher’ because what dominated the classroom was ‘teacher-direction’ (1988, p. 41). Furthermore, Widdowson (1990, p. 188) described the opposition of *teacher authority* to *learner autonomy* as a ‘prominent debate’. He differentiated between *interactional* and *transactional* exercise of authority. In the former, the teacher is superior and the learner has to follow his/her orders. However, in the latter, the teacher is less authoritative because s/he is qualified to transmit knowledge which is beneficial to the learner.

Through CLT, “students are given opportunities to focus on their own learning process through an understanding of their own styles of learning and through the development of appropriate strategies for autonomous learning” (Brown, 2001, p. 43).

The learner-centred curriculum takes into consideration ‘learners’ needs, styles, and goals’ as well as ‘creativity/innovation’. The learner is a controller of his/her own learning where ‘sense of competence and self-worth’ plays a crucial role (Brown, 2001, p. 47). Cash (2011, p. 78) designed two checklists of the characteristics and roles of students and teachers in a student-centred classroom (see *Appendix K* and *Appendix L*).

Watkins, Carnell and Lodge argued that learning is the students’ job. They explained that “no-one else can do your learning for you. They may be able to support your learning by the way they manage an environment, or the way they talk with you, but they can’t do it for you” (2007, p. 103). Oxford also criticized students who are ‘passive’ and ‘spoon-fed’. She described them in the following quotation as failures:

[T]hey like to be told what to do, and they do only what is clearly essential to get a good grade—even if they fail to develop useful skills in the process. Attitudes and behaviours like these make learning more difficult and must be changed, or else any effort to train learners to rely more on themselves and use better strategies is bound to fail. (Oxford, 1990, p. 10)

3.1.2.8. The Natural Approach

The natural approach was first created by Terrell in 1977. Then, Terrell developed in collaboration with Krashen the principles of this approach which were published in their book the *Natural Approach* in 1983. The natural approach is based on ‘exposure’ to ‘comprehensible input’ instead of practice. It is based on developing learners’ communicative skills (as cited in Richards & Rodgers, 2001, p. 179). Under this approach, students play “an active role and have relatively high degree of control over content language production” (Nunan, 1989, p. 80). As a conclusion, the natural approach encourages active learning.

Five hypotheses are suggested by Krashen: firstly, *'the acquisition-learning hypothesis'* proposed that learning is conscious while acquisition is unconscious (1985, p. 79). Secondly, *'the natural order hypothesis'* which was first suggested by Corder (1967) to indicate that acquisition follows a specific 'order' in which many factors interfere not only 'formal simplicity' (as cited in Krashen, 1985, p. 1). Thirdly, in *'the monitor hypothesis'*, language production springs from the unconscious mind and is monitored by the conscious one. Consciousness serves as a monitor or editor through 'editing' and making 'corrections' for what is acquired unconsciously (Krashen, 1985, pp. 1-2). Fourthly, *'the input hypothesis'* supposes that language acquisition occurs through 'exposure' to new input which will be transformed into knowledge when the learner moves to a new level which exceeds his/her current level of understanding (Krashen, 1985, p. 2). Finally, *'the affective filter hypothesis'* assumes that input is not enough since the learner could be mentally blocked by 'the affective filter' which could be 'up' or 'down'. When it is 'up', the learner is blocked by his/her lack of motivation, lack of self-confidence, anxiety...however, when it is 'down', the learner has a high self-confidence in his abilities to succeed (Krashen, 1985, p. 3).

3.1.3. The Role of the CRAPEL in the Emergence of Autonomy

The concept of autonomy appeared in language learning/teaching after the establishment of the CRAPEL (Centre de Recherches et d'Applications en Langues) by Châlon at the University of Nancy in France. The CRAPEL was created as a result of the efforts made by the Council of Europe's Modern languages Project of 1971. The Journal *'Mélanges Pédagogiques'* which was published by CRAPEL since 1970 till now has always been very effective for introducing autonomy. When Châlon-the father of autonomy-died in 1972, Holec became the leader of the centre. After that, a seminar was held at the University of Cambridge in 1976 to discuss autonomy and self-directed

learning as a new term in language learning (Benson, 2011a, p. 9). Autonomy in education implies the need for raising learners' awareness of "the processes by which he can himself organize his learning experience" (Trim, 1976, as cited in Allwright & Hanks, 2016, p. 45).

3.2. Definition of Autonomous Learning

Autonomous learning was defined by many scholars, the following is a chronological review of its most common definitions. Stanchina (1975) defined autonomy as:

[A]n experiment in how learning can be freed from the bounds of any institution, and in how the individual can reclaim control of and responsibility for his or her own education, while investigating the opportunities to learn from a variety of authentic sources. (as cited in Benson, 2008, p. 22)

As indicated in the previous quotation, autonomy is 'free' or independent learning based on self-control and 'responsibility' through the use of 'authentic materials'. Holec defined autonomy as "a capacity to take charge of one's own learning" (1981, p. 3). He commented that "this ability is not inborn but must be acquired either by 'natural' means or (as most often happens) by formal learning, i.e. in a systematic, deliberate way" (1981, p. 3). Nearly the same definition was introduced by Benson who used 'control' instead of 'charge' to indicate learners' responsibility (2001, as cited in Benson, 2009a, p. 14). Similarly, Dickinson (1987) defined autonomy as "the situation in which the learner is totally responsible for all of the decisions concerned with his learning and the implementation of those decisions. In *full autonomy* (emphasis added) there is no involvement of a 'teacher' or an institution" (as cited in Benson, 2011a, p. 14). So, autonomy denotes total detachment from the teacher and full

responsibility by the learner. Dickinson added that “the learner is also independent of specially prepared materials” (as cited in Benson, 2011a, p. 14). This implies that learners have to design their own materials, which supposes creativity on the side of the learner who is no more a passive receiver.

Eventually, Candy defined autonomy as “the ability and willingness to approach situations with an open mind, to suspend critical judgement and to act in accordance with rules and principles which are the product of the autonomous person’s own endeavours and experience” (1987, as cited in Boud, 1988, p. 21). This implies that autonomy is coming from the inside and is based on one’s evaluation of past experiences. Later, Dworkin (1988, p. 20) considered autonomy as “a second-order capacity of persons to reflect critically upon their first-order preferences, desires, wishes, and so forth and the capacity to accept or attempt to change these in light of higher-order preferences and values”. This definition highlights self-reflection about one’s preferences for two main objectives: acceptance or modification of the actual situation.

Furthermore, Higgs (1988, p. 41) stressed the fact that autonomy is “a process in which the learner works on a learning task or activity and is largely independent of the teacher who acts as manager of the learning programme and as resource person”. Hence, autonomy is doing tasks independently from the teacher whose role is facilitator. Allwright (1990, as cited in Little, 1995, p. 178) viewed autonomy as “a constantly changing but at any time optimal state of equilibrium between maximal self-development and human interdependence”. This denotes that autonomy is a continuous process that promotes self-reliance through collaboration with others. In addition, Little defined it as a “capacity –for detachment, critical reflection, decision-making and independent action” (1991, p. 4). Thus, an autonomous learner is able to rely solely on

himself/herself and to make self-reflection through critical thinking and making decisions about his/her progress.

Moreover, Dam declared that autonomy is “a capacity and willingness to act independently and in cooperation with others, as a socially responsible person” (1995, as cited in Sinclair, 2008, p. 243). Dam refers to ‘collaborative autonomy’ when he said ‘in cooperation with others’. Although the learner is independent and self-reliant, s/he needs to collaborate with his/her teachers and peers. By contrast, Little indicated that “learner autonomy is essentially a matter of learning without a teacher” (1999, p. 78). The same idea of individual autonomy and isolated learning is introduced by Tobin who explained that:

When you learn independently you are not part of a class or workgroup or a team. You learn in isolation. Of course, most learning is dependent on other people: a teacher, the writer of a book, article, or training program; or a colleague who answers a question. (2000, p. 12)

Simultaneously, Scharle and Szabó (2000) defined autonomy as: “the freedom and ability to manage one’s own affairs” and “make decisions” (p. 4). They further claimed that ‘responsibility’ is “being in charge of something, but with the implication that one has to deal with the consequences of one’s own actions. Autonomy and responsibility both require active involvement, and they are apparently very much interrelated”. It is observed that Scharle and Szabó relate responsibility to autonomy because both are based on decision-making and ‘active involvement’ (2000, p. 4).

According to Sinclair (2008, p. 243), “learner autonomy is a construct of capacity which is operationalised when willingness is present”. So, autonomy necessitates willingness and it is seen as a “capacity”. From this perspective, the word “capacity” denotes “the development and conscious awareness of a body of specific

metacognitive knowledge about: – one’s self as a learner – one’s learning context; – the subject matter to be learnt; – the processes of learning”. Sinclair (2008, p. 243) added that this capacity is enhanced by teachers. This could be done through raising learners’ awareness of metacognitive strategies’ in relation to personality, context, content and learning process. Training learners to use their metacognitive strategies could be highly effective in raising their autonomy.

3.3. Terminology related to Autonomy

Concerning the words that are close to autonomy, Broad claimed that ‘independent learning’, ‘autonomy’, ‘self-directed learning’ and ‘self-regulated learning’ are used interchangeably (2006, as cited in Morrison, 2011, p. 4). Besides, Watkins et al. considered ‘learner-driven learning’ as a comprehensive term which includes: autonomy, learner responsibility, learner agency, independent learners, self-regulated learners and self-directed learners (2007, p. 104). Also, Macaro added ‘flexible learning’ and ‘student-centred learning’ as terms which are used to indicate autonomy (1997, p. 167).

For a comprehensive understanding of autonomy, the concept of *autonomy* should be distinguished from *active learning*. As commented by Prince, learners have become active participants in the new learner-centred classroom unlike the ‘traditional instruction’ (2004, p. 223). Active learning is defined as “any instructional method that engages students in the learning process”. It is when students “do meaningful learning activities and think about what they are doing” (Bonwell & Eison, 1991, as cited in Prince, 2004, p. 223). It is observed from the previous definition that active students participate in the construction of knowledge through engagement and continuous evaluation of their actions. Within this scope, three ways of *active learning* are identified, firstly, *behavioural* active learning by “actively using and creating

materials”; secondly, *cognitive* active learning that implies “thinking, constructing new meaning”; thirdly, *social* active learning which is “engaging with others as collaborators and resources” (Watkins et al., 2007, p. 71). Eventually, active learning embodies active reading, active writing, active listening, active experimentation and active inquiry. Active inquiry implies non-experimentation; it is rather a qualitative critical investigation (Watkins et al., 2007, pp. 74-75).

Deci and Flaste differentiated between *autonomy* and *independence* in learning. The former is ‘to act freely’ while the latter is ‘self-reliance’ and ‘self-support’. They further explained that being ‘independent and autonomous’ is to have self-reliance as a matter of freedom and choice whereas being ‘independent and ‘controlled’ (not autonomous) implies self-reliance as an obligation (as cited in Hamilton, 2013, p. 2). According to Wang, autonomy refers to ‘situational independence’ and ‘self-management’ (1983, as cited in Candy, 1988, p. 60). Hence, an autonomous learner is the one who manages his/her own learning through self-reliance and self-support. However, independence does not necessarily include autonomy. The following figure represents a terminology of autonomy as perceived by experts:

Figure 3.1. The Preferred Terminology of Autonomy Experts

(Intellectual) Heteronomy	(Intellectual) Autonomy	Kamii et al., 1994 Namenwirth, 1996 Nolen, 1995 Rujiketgumjorn, 2000 Waite-Stupiansky, 1997
Other-directed	Self-directed	Holec, 1985 Kohonen, 1992
Teacher-directed	Student-directed	Huttunen, 1986
Complete lack of autonomy (vegetative)	Complete autonomy (idealistic)	Sinclair, 2000
Total dependence	Autonomy	Nunan, 2003

Note. Adapted from: Everhard, 2015, p. 13.

As illustrated in Figure 3.1., autonomy is viewed by Nunan as the opposite of ‘total dependence’. At this point, total dependence equals ‘heteronomy’ and reliance on

the teacher due to what is identified by Sinclair as the ‘complete lack of autonomy’ and complete guidance of the teacher. Furthermore, Ryan and Deci explained that autonomy could “be influenced by outside sources, as long as the behaviour is still personally valued by the individual” in contrast to “independence” which has no link with external sources (2002, as cited in Gilbert & Kelloway, 2014, p. 183). Thus, independence from the teacher reflects self-direction and total autonomy.

Recently, the idea of independence has been severely criticised for the exclusion of the teachers’ collaboration and guidance; therefore, it was replaced by ‘interdependence’ which emphasizes collaboration between the teachers and the students and peer collaboration (Benson, 2011a, p. 14). As explained by Everhard (2015, p. 1) in his table (see *Appendix K for Approaches to teaching and learning and their impact on autonomy*), interdependence lies between *autonomy* and *heteronomy* within three learning approaches: the *transmission* approach, the *transaction* approach, and the *transformation* approach.

In the transmission approach, a complete absence of autonomy is noticed. The curriculum is teacher-centred and intrinsic motivation is absent. Hence, the learner is a “passive” recipient of knowledge created by the teacher. In the transaction approach, there is a move toward autonomy through “interdependence” and cooperation/collaboration where control is shared among teachers, students, and peers in a learner-centred classroom. The transformation approach depicts autonomy and self-independent learning in a totally learner-centred classroom where the learner is an active constructor of knowledge who is intrinsically motivated and able to make self-assessment, self-evaluation, and self-regulation by employing problem-solving skills (Everhard, 2015, p. 1). So, the moving from a teacher-centred classroom to a learner-centred one necessitates collaboration between teachers, students, and peers.

3.4. Dimensions of Learner Autonomy

Little (1995, p. 176) specified two dimensions for learner autonomy: the first is *pedagogical* while the second is *communicative*. Pedagogical autonomy starts in the classroom when the learner receives language input and tries to process information about the language. However, communicative autonomy is developed later when the learner becomes able to use the target language to communicate independently.

Recently, new advances in teaching and technology have viewed autonomy from new perspectives. Benson (2011b, p. 12) assigned four dimensions to autonomous learning: *location, formality, pedagogy, and locus of control*. Location is the ‘setting’, the context or the location of learning. Autonomy is located either in or out of the classroom. Benson was the first one to differentiate between ‘autonomy *in* the classroom’ and ‘autonomy *beyond* the classroom’ or ‘out-of-class’ learning (2007, as cited in Benson, 2009b, p. 219). Benson (2009b, p. 224) claimed that learning beyond the classroom is based on the ‘process’ and the ‘setting’. The latter depends on ‘the mode of practice’ which is defined as “a set of routine processes or interactions that deploy the elements of a setting and are characteristic of it”. For example ‘self-access’ could be considered as a setting as well as a mode of practice (Benson, 2009b, p. 229). In this context, learners’ daily life engagement is crucial to enhance autonomous learning out of the classroom.

Not all students can practice language in the classroom due to time constraints. Communication is necessary to raise English proficiency outside the classroom. However, students are not motivated to be autonomous outside the classroom especially because of the absence of external ‘guided instruction’ (Davis, 2013, pp. 85-86). Hence, scaffolding outside the classroom through online learning environments could promote autonomous learning (Davis, 2013, p. 89). In this respect, ‘out-of-class

guidance' is an effective strategy towards the development of learner autonomy (Davis, 2013, p. 93). Other terms which are used to refer to autonomy outside the classroom are: after-class learning, extra-curricular learning, self-access, out-of-school learning, and distance learning (Reinders & White, 2016, p. 144). Eventually, the student has to act independently in and out of the classroom context because autonomy in the classroom solely is not enough. Self-reliance implies planning, self-assessment and work outside the classroom.

The second dimension 'formality' implies that learning is either formal or informal. Hence, autonomy could be 'naturalistic' in informal settings. The third dimension 'pedagogy' views autonomy as 'non-instructed' or 'self-instructed' in contrast to the old 'instructed' teaching. The fourth dimension 'locus of control' entails that autonomy is 'self-directed, independent, and self-regulated' unlike non-autonomous learning which is 'others-directed' (Reinders & White, 2016, p. 144).

New classroom pedagogies towards autonomy highlight the use of digital tools and informal learning. The latter is defined by Boekaerts and Minnaert as "an active, voluntary, self-discovering process" (as cited in Donoso & Calvi, 2009, p. 32). Interaction in informal digital environments between students and their classmates as well as students and teachers outside the classroom could lead to high levels of autonomy (Donoso & Calvi, 2009, p. 34). Furthermore, *distance learning* emerged as a new form of learning where "the student is geographically separated from their teacher" in a learning environment where the curriculum is predetermined and self-control is practiced by the student (Delport & Squire, 2010, p. 186). Eventually, we could differentiate between traditional autonomous learning and technological autonomous learning. The previous dimensions confirm that autonomy is a multidimensional concept.

3.5. Degrees of Learner Autonomy

Little stated that “the learner who displays a high degree of autonomy in one area may be non-autonomous in another” (1991, p. 5). He also asserted that “differences in genetic inheritance and domestic environment nevertheless mean that some learners develop a greater and more effective capacity for autonomous learning than others”. However, it is the teachers’ role to promote learners’ ‘capacity’ for autonomous learning” (Little, 1999, p. 83). So, the degree of autonomy is related to ‘genetics’ as well as ‘the environment’.

Benson (2008, p. 21) contended that autonomy differs from a learner to another. He explained that there are ‘relative capacities for autonomy’ which make someone ‘more autonomous’ than others. Moreover, Benson (2009a, p. 15) maintained that autonomy may be ‘different’ within the learner himself/ herself according to various situations and ‘times’. Consequently, learning autonomy has degrees since it varies from a person to another and within the same person.

3.6. Types of Learner Autonomy

Functional autonomy was introduced by Allport in 1937 to identify engagement in an activity due to intrinsic motivation (as cited in Deci & Ryan, 1985, p. 12; Silvia, 2006, p. 123). Later, Allport divided functional autonomy into two types: *perseverative functional autonomy* and *proprie functional autonomy*. The former is when a motive persists for a period of time as the driving cause behind persons’ actions while the latter represents ‘motives’ in the form of ‘sentiments’ and ‘interests’ which affect person’s decisions (1961, as cited in Silvia, 2006, p. 123).

Moreover, Widdowson identified two types of autonomy: *transactional* and *interactional*. Transactional autonomy is when the teacher is authoritative while interactional autonomy is considering the teacher as a guide for the learner where less

authority is exercised (1990, p. 190). Furthermore, Littlewood specified two types of autonomy on the basis of self-regulation: '*proactive*' autonomy which directs 'the activity' and '*reactive*' autonomy which 'regulates the activity' itself. Here, proactive autonomy is more important than reactive autonomy because the former is bound with 'initiation' of the task while the latter is related to its organization (1999, as cited in Benson, 2008, pp. 23-24).

Benson identified three versions of autonomy in learning: technical, psychological and political (1997, p. 19). *Technical autonomy* is language learning outside the classroom where the learner assumes full responsibility of his/own learning. *Psychological autonomy* is 'a capacity' to be more responsible in learning depending on one's 'attitudes and abilities'. *Political autonomy* is learners' "control over the processes and content". This implies that responsibility and decisions about what to be taught and how it is taught are highly effective in enhancing autonomy.

Oxford (2003, p. 77) identified four types of autonomy in relation to four perspectives: *technical*, *psychological*, *socio-cultural* and *political-critical*, depicted within four features: *context*, *agency*, *motivation*, and *learning strategies* (see Appendix M). *Technical autonomy* depicts the 'skills' used by students to work independently for example in a *Self-Access Centre* where motivation is 'variable' and learning strategies are promoted through 'training'. *Psychological autonomy* is related to the personal features of the individual such as 'attitudes' and 'styles' in an EFL/ESL context where motivation is almost constant; yet it could change through 'strategies training'. *Socio-cultural autonomy* has two versions: the first one is 'self-regulation' on the basis of 'social interaction' while the second is aimed at 'participation' rather than autonomy by using one's own 'cognitive strategies' and learning more strategies through contact with other 'communities' in different social and cultural contexts. *Political-critical*

autonomy is an opportunity for the learner to get in line with other cultural contexts and political ‘settings’ and to have freedom of expression as well as to feel motivated to be treated fairly by others.

Furthermore, *individual* autonomy is distinguished from *collaborative* autonomy. In this respect, Dam explained that autonomy is “a capacity and willingness to act independently and in cooperation with others, as a socially responsible person” (1995, as cited in Sinclair, 2008, p. 243). Cooperation in groups leads to ‘positive interdependence’ (Olsen & Kagan, 1992, as cited in Richards & Rodgers, 2001, p. 196). In the following quotation, there is a comprehensive explanation of the idea of collaborative autonomy:

The word “autonomy”, with its overtones of independence and self-determination, invites a focus on the individual rather than the group, which is no doubt responsible for the widespread misconception that learner autonomy is essentially a matter of learning without a teacher... I do not of course wish to deny the importance of individual cognitive aspects of learning; but I do want to suggest that we shall not fully understand those aspects if we do not pay equal attention to the social-interactive processes by which learning is mediated. (Little, 1999, p. 78)

Although autonomy suggests acting individually, interacting with others is a necessity to promote learning by making autonomy collaborative. In this context, collaboration plays an important role in developing learners’ autonomy. Recent technologies further advocated the impact of ‘tele-collaboration’ to raise students’ autonomy through ‘cooperative exchanges’ (Reinders & White, 2016, p. 148). Reinders and White advocated the use of technology to reduce ‘formality’ and enhance self-

control, on the one hand, and to provide the learner with a variety of settings and ‘pedagogies’, on the other hand (2016, p. 151).

As a conclusion, autonomy implies individualism and independent learning; however, collaboration between learners in a group could be highly effective. Technology is highly recommended to promote collaborative autonomy through distance learning and intercultural communication.

3.7. Approaches to Autonomy

Two main approaches to learner autonomy are discriminated: the *weak* version and the *strong* version. The strong version indicates that learners are “already autonomous”; whereas, the weak version stresses the fact that learners are not autonomous (Smith, 2003, p. 129). This is illustrated in the following figure:

Figure 3.2. ‘Weak’ and ‘Strong’ Versions of Pedagogy for Learner Autonomy

Approach	Goal
<p>‘Weak version’: Awareness-raising (‘training’/ ‘preparation’ for Self-directed learning/ learner autonomy)</p> <p>Learning strategy syllabus Presentation and practice of discrete ‘good learning’ strategies</p>	<p>Self-directed learning/ learner autonomy (as envisaged by the teacher/syllabus/institution)</p>
<p>‘Strong version’: Exercise of students’ own (partial) autonomy (via (partially) student-directed learning + reflection)</p> <p>Negotiated syllabus Experience of and reflection on student Directed-learning</p>	<p>Awareness-raising (enhancement of student-directed learning) development of students’ own autonomy.</p>

Note. Adapted from: Smith, 2003, p. 129.

As indicated in the previous figure, what learners need in *the strong version* is practice (exercise) and ‘reflection’ to develop and enhance their independence. However, *the weak version* entails that learners’ awareness needs to be raised towards the importance of autonomy by training them to use their learning strategies especially

the metacognitive ones. Besides, Oxford identified three approaches to autonomy as indicated in the following table:

Table 3.1

Three Approaches to Autonomy

Approach	<i>[A]Native-speakerist</i> 'learner autonomy' 'learner-centred'	<i>[B]Cultural relativist</i> 'critical linguistics'	<i>[C]Social autonomy</i> Pre-existing social autonomy People in society
Assumptions	'We' (native-speakerists) must teach 'them' (from 'other cultures') how to be autonomous in 'our' educational settings. Autonomy needs to be induced by means of learner training-in the image of 'the native speaker' and 'his/her culture'. Constructed by teacher-created learning activities.	'We' (from the English-speaking West) cannot expect 'them' (from 'other cultures') to be autonomous like 'us'.	Everyone can be autonomous in their own way. Autonomy resides in the social words of the students, which from they bring with them their lives outside the classroom. Often hidden by learning activities.
World view	'Our culture' is superior.	One 'culture' cannot be like another. It is unrealistic to expect 'them' (from 'other cultures') to be like 'us'.	Culture is uncountable and negotiable. We (all TESOL) people always tend to be culturist, reducing 'them' to cultural stereotypes. Our professionalism prevents us from seeing people as they really are.
Problem (as perceived by owners)	'they' cannot be what 'we' (native speakerists) want them to be because 'their culture' does not allow them.		Our professionalism prevents us from seeing people as they really are.
Solution (as perceived by owners)	Learner training or acculturation.	'They' or 'we' must develop special methodologies that suit 'them'.	We must stop being culturist and learn to see through our own professionalism.

Adapted from: Oxford, 2003, p. 116.

As shown in Table 3.1, in *the Native-speakerist approach*, the native teacher is supposed to deal with activities that foster non-native students' autonomy by transmitting natives' culture. Furthermore, *the cultural relativist approach* claims that foreigners are not as autonomous as native speakers. Finally, the *social autonomy approach* suggests that anyone—either native or not, can be autonomous outside the classroom (Oxford, 2003, p. 116). Hence, each student should rely on out-of-class learning activities to raise his/her self-reliance because teachers' total guidance stops when students' autonomy begins.

3.8. Characteristics of Autonomous Learners

Autonomous learners are characterized by many features; the most common ones are explained below.

3.8.1. Self-direction

Self-directed learning (SDL) comes from Knowles' theory of 'andragogy' or 'adult education' (as cited in Kingsbury, 2015, p. 170). In this respect, SDL is defined as:

[A] process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes. (Knowles, 1975, as cited in Sharpe & Kelley, 2014, p. 397)

As indicated in the previous quotation, SDL entails needs' analysis, setting the objectives, materials' selection, strategies' use, and evaluation of the results. It could be done either alone or in cooperation with others. In psychology, Shapiro declared that 'self-direction' and 'flexibility' are very influential in goals' 'achievement' (1981, as cited in Deci & Ryan, 1985, p. 6). More importantly, Oxford stressed that self-direction is "not an 'all or nothing' concept" since it would result in learners' proficiency because of increased confidence, responsibility and involvement (1990, p. 10). Moreover, SDL is described by Pintrich (2000, as cited in Kingsbury, 2015, p. 169) as an "active, constructive process". It is based on self-monitoring, self-regulation and self-control in accordance with the pre-specified objectives and the context. It is also the 'process' of employing students' mental abilities to reach "task-related academic skills" (Zimmerman, 2001, p. 1). Surprisingly, Tobin (2000, pp. 12-13) ensured that SDL is

making one's own decisions about the content and the way of learning either in independent or dependent learning.

Furthermore, Knowles, Holton and Swanson (2015, p. 171) asserted that SDL is seen from two perspectives: from the first perspective, it is considered as 'self-teaching' when learners have control of 'teaching themselves'. From the second perspective, SDL is equivalent of 'personal autonomy' or as labelled by Candy 'autodidaxy' which implies the ownership of learning (1991, as cited in Knowles et al., 2015, p. 171). More importantly, SDL can be considered either as 'a process' or 'a personal attribute'. As a process, SDL has three models: *linear*, *interactive*, and *instructional*. The first model is based on learners' pre-designed steps while the second one is more flexible than the first one in relation to steps' design. The last model is for 'formal settings' (Sharpe & Kelley, 2014, p. 396).

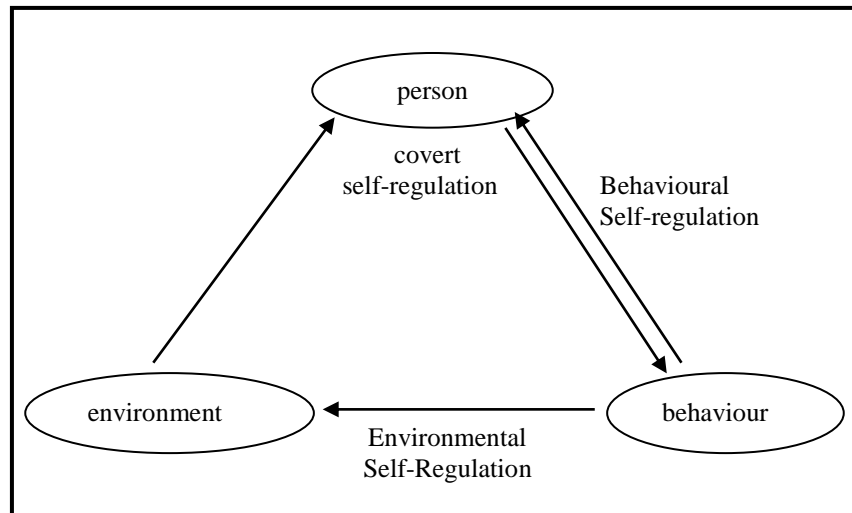
3.8.2. Self-monitoring

Self-monitoring is defined by Zimmerman et al. as "the deliberate observation of covert and overt aspects of one's performance outcomes on a given task, such as comprehending while reading" (1996, p. 2). Hence, self-monitoring is related to assessment of students' results/achievement. Similarly, Ambrose, Bridges and DiPietro argued that self-direction is achieved through self-evaluation and self-monitoring. This could happen when the tasks' performance and the skills are judged (2010, p. 191). Also, self-monitoring results in high academic achievement (Ambrose et al., 2010, p. 198).

Self-monitoring guides the student towards improvement through self-evaluation and self-judgment of practice outcomes (Zimmerman et al., 1996, p. 13). Self-monitoring is characterized by 'self-knowledge' and 'self-awareness', it is considered as a 'self-regulatory process' (Zimmerman et al., 2001, p. 206). Also, self-

monitoring implies that learning is based on three types of reflective feedback (Zimmerman, 1986, as cited in Dorothy & Zimmerman, 2001, p. 207) as illustrated in the following figure:

Figure 3.3. Triadic Forms of Self-regulation



Note. Adapted from: Dorothy & Zimmerman, 2001, p. 207.

As shown in Figure 3.3, the three types of feedback are necessary to self-regulation: *personal, behavioural, and environmental*. The learner reflects on his/her own personal attitudes and abilities. Simultaneously, s/he has to evaluate his/ her own behaviour as well as the environmental factors which may affect his/her own learning. These three types of feedback could enhance learners' self-regulation.

3.8.3. Self-determination

Autonomy is related to self-determination theory when a person is free from others' control while s/he is responsible for his/her own control which is enforced by intrinsic motivation (Deci & Ryan, 1985, p. 30). In this respect, Deci and Ryan (1985, p. 31) differentiated between control and self-determination where the former is a relation between action and outcomes whereas the latter is freedom to implement the action. They defined self-determination as "the capacity to choose..., be the determinants of one's actions" (1985, p. 38). It is to be flexible when dealing with one's

own environment and to have the decision of control or non-control over it (Deci & Ryan, 1985, p. 38).

Moreover, self-determination could increase or decrease due to the positive or negative effects of the environment. A supportive environment could lead to the enhancement of self-determination (Deci & Ryan, 1985, p. 39). Besides, Macaro (2003, p. 96) argued that self-determined learners are autonomous as they have freedom to do whatever they want where the aim is 'enjoyment' and 'self-fulfilment'.

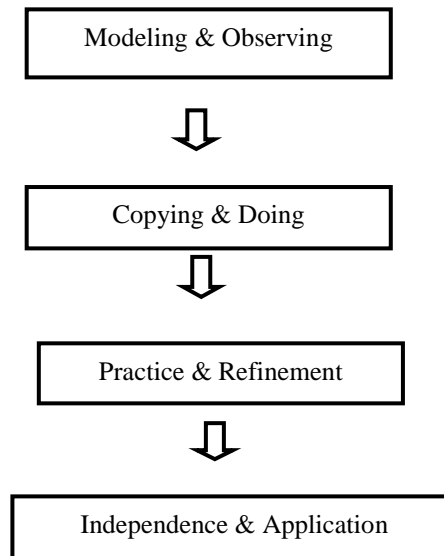
3.8.4. Self-regulation

Self-regulation research has emerged in the nineteen eighties (1980s) to make students responsible for their own learning. It originated from the work of Bandura in social cognitive theory which explains that learning is directed by self-influence (as cited in Kingsbury, 2015, p. 169). Zimmerman et al. defined *academic self-regulation* as "self-generated thoughts, feelings, and actions" towards the achievement of learning objectives (1996, p. 2). Zimmerman further declared that learning following self-regulation theory is "an activity that students do for themselves in a proactive way, rather than as a covert event that happens to them reactively as a result of teaching experiences" (2001, p. 1). As a result, self-regulation is related to active participation in learning as explained by Dornyei and Skehan (2003, as cited in Griffiths, 2013, p. 32).

According to Cohen, the term 'self-regulation' has replaced *autonomy* (2011, as cited in Griffiths, 2013, p. 32). Similarly, Oxford stated that self-regulation is similar to autonomy because both of them mean the ability to regulate "one's own thoughts, learning, and actions" (2003, p. 80). However, Paris and Paris declared that 'self-regulated learning' is a more comprehensive term which embodies autonomy (as cited in Watkins et al., 2007, p. 107). Moreover, Watkins et al. (2007, p. 107) considered 'self-regulation and self-direction' as the causes behind effective learning. Self-

regulated learners set goals for their learning and believe in the ability to reach these goals through making efforts (Cash, 2011, p. 71). This could happen through four stages designed by Zimmerman et al. as indicated in the following figure:

Figure 3.4. Four Phases of Self-regulation

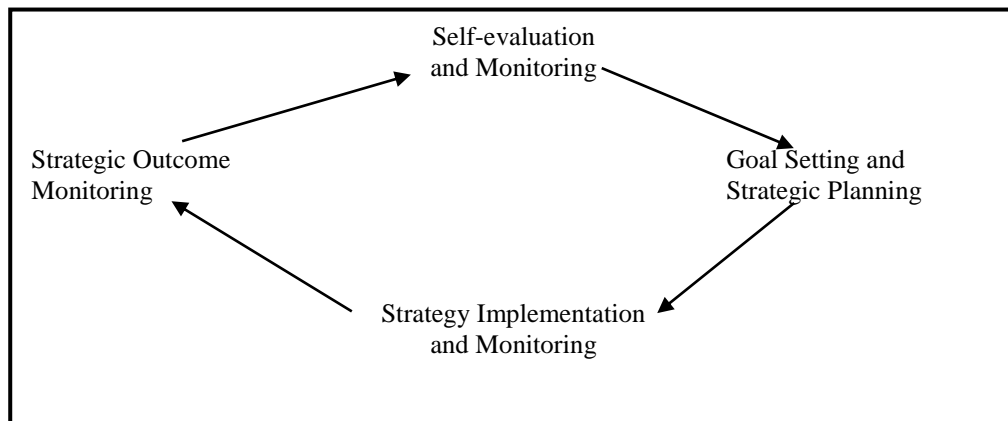


Note. Adapted from: Zimmerman et al., 1997, as cited in Cash, 2011, p. 71.

As indicated in Figure 3.4., the students reach self-regulation starting by observation and modelling when they evaluate their own capacities. Then they make plans for modification of their own actions. After that, they apply the plan and makes re-modifications whenever needed. Finally, they act independently following their own plans. Furthermore, three phases of self-regulation are indicated by Harvey and Chickie-Wolfe). Firstly, *preparation* includes “forethought, task definition, planning, goal setting, task analysis, strategy selection, selection of beliefs such as self-efficacy, outcome expectations, valuing, and intrinsic motivation”. Secondly, *performance* underlines “goal striving, strategy use, strategy monitoring and revision, self-monitoring, self-instruction, attention focus, self-recording, self experimentation, and self-control”. Thirdly, *appraisal* includes “self-reflection, self-judgment, performance evaluation, performance feedback, and self-satisfaction” (2007, p. 4).

Self-regulation can be constructed through what Cash (2011, p. 73) labelled ‘a growth mindset’ as opposed to ‘a fixed mindset’. He explained that a growth mindset promotes self-regulation and autonomy because s/he is ready to develop his/her skills and face all the obstacles in learning. However, a fixed mindset thinks that his/her abilities are fixed and cannot be changed. Consequently, learners should be aware of the importance of having a growth mindset especially through *a student-centred classroom*. Zimmerman et al. (1996, p. 11) designed a cyclic model of four stages to develop self-regulated learning:

Figure 3.5. A Cyclic Model of Self-regulated Learning



Note. Adapted from: Zimmerman et al., 1996, p. 11

As illustrated in the previous model, self-regulation is a cyclic process where self-evaluation and monitoring are highly significant since they provide a basis for self-reflection and corrective feedback. Then, the learner could set new goals which should be specified carefully. Subsequently, setting the plan in accordance with the goals necessitates action or ‘implementation’ that goes hand in hand with monitoring. Finally, continuous monitoring is needed to evaluate the outcomes which lead again to self-evaluation and monitoring.

3.8.5. Self-assessment and Self-evaluation

Assessment has three types: *summative, formative and sustainable*; the latter is closely related to autonomy. The Internet could help teachers design different types of tests, for example by using the ‘test generator software’ which necessitates different kinds of questions (Lewis, 2009, p. 59). Sustainable assessment was first introduced by Boud (2000, as cited in Falchikov, 2005, p. 79). It promotes autonomy because it is based on many features such as: ‘active engagement’, ‘self-monitoring’, and confidence. An example of sustainable assessment provided by Boud is ‘a self-assessment schedule’ (2002, as cited in Falchikov, 2005, p. 79).

Nunan asserted that one of the aims of assessment is developing learners’ own responsibility (2015, p. 172). However, teachers’ assessment has ‘inhibiting effects’ on the development of autonomy; hence, teachers looked for a new way of assessment which “places greater responsibility in the hands of students”, namely self-assessment (Boud, 1988, p. 36). They have to help students make self-assessment through guiding them to effective ‘grading rubrics’ (Harvey & Chickie-Wolfe, 2007, p. 163). By contrast, Watkins et al. advocated the necessity of implementing self-assessment by developing students’ own rubrics or criteria in order to judge their learning (2007, p. 148).

Besides, Nunan encouraged training students to make self-assessment in order to know “their own strengths better, and where they need more help from the teacher” (2013, p. 76). Nunan claimed that self-assessment could be either informal or through the use of checklists (2015, pp. 173-174). This entails the necessity to know effective ways and tools of self-assessment. Watkins et al. (2007, p. 150) specified four levels of self-assessment by learners as follows:

Table 3.2
Four Levels of Assessing Oneself as a Learner

	Teaching/learning role
Novice	Needs help or direction
Apprentice	Learns with some assistance
Practitioner	Functions independently
Scholar	Facilitates learning

Adapted from: Watkins et al., 2007, p. 150.

As explained in Table 3.2, four levels of self-assessment are identified. The novice student is ignorant of the ways of making self-assessment. S/he shows persistent inability to do so. However, when the student becomes apprentice at the second level, s/he starts to learn how self-assessment is conducted through the guidance and help of the teacher. At the third level, s/he is more independent taking the role of practitioner. The last phase is s/he as a scholar who is able to facilitate learning. At this stage, s/he needs no direction.

Furthermore, assessment is responsible for ‘building’ learners’ autonomy; hence, Cash (2011, p. 89) provided both teachers and learners with a model of assessment which could promote learners’ autonomy through four stages of autonomy development (see *Appendix N*). In a consultative and self-regulatory level, the student designs his/her own tasks of self-assessment. Then, autonomy diminishes in the coached level, when the teacher collaborates with the learner to design assessments. In the facilitated level, the teacher is responsible for assessment design while the student chooses what suits him/her. The didactic level does not allow for autonomy. Unfortunately, the teacher designs his/her assessments without taking into consideration the learners’ needs or choice. In the last type, teachers’ assessment rather than learners’ assessment is encouraged.

3.8.6. Self-control and Responsibility

Self-control and responsibility in learning are highly appreciated to promote autonomy. Learners who have self-control could promote their independence and

autonomy (Mele, 1995, p. 3). According to Baumeister, Vohs, and Tice (2007, p. 351), self-control is defined as “the capacity for altering one’s own responses, especially to bring them into line with standards such as ideals, values, morals, and social expectations, and to support the pursuit of long term goals”. More deeply, Ferlazzo and Sypniewski asserted that self-control is related to resistance when they argued that it is “the act of resisting an immediate distraction in order to focus on a task that can help you achieve a short term goal” (2016, p. 158).

Overall, self-control is the ability to govern one’s action in accordance with one’s personal, moral and social beliefs in order to keep perseverance and fulfil the objectives in the short as well as the long term. Moreover, self-control needs practice to reach one’s intentions. Thus, it necessitates ‘judgment’, ‘over-determination’ and ‘self-commands’ (Mele, 1995, pp. 27-28). Baumeister et al. described self-control as ‘deliberate and conscious’ (2007, p. 351). This implies the ability to maintain self-regulation, responsibility and self-assessment through pre-determined actions to cope with failure.

Advanced learners tend to show more self-control due to age effect. Therefore, teachers have to help their learners develop self-control through minimizing all possible ‘interruptions’, “exercising self-control like a muscle, but without fatiguing it”, and providing positive reinforcement through feedback (Bergin & Bergin, 2016, p. 273). Besides, self-control could be “learned, practiced and internalized” (Siddoway, 2014, p. 6). It is the result of overcoming “negative and self-defeating thoughts” (Siddoway, 2014, p. 8). Eventually, all these factors that entail positive thinking and hard work could strengthen learners’ self-control and enhance their autonomy.

Concerning the relationship between autonomy and responsibility, Allford and Pachler (2007, p. 33) specified two main streams for autonomy: ‘*radicalism* and

gradualism'. The first concept implies that autonomy is a 'right' for the learner to which s/he is totally 'responsible'. Meanwhile, the second concept is 'a long-term goal' which could be reached gradually. Hence, responsibility enhances self-direction. Two types of responsibility are indicated by Holec: *static* and *dynamic*. The former is based on a 'pre-set programme' to fulfil one's goals; while, the latter is 'flexible' and can be changed whenever there is progress in the programme (1988, as cited in Gardner & Miller, 1999, p. 8).

Furthermore, the teacher could make learners self-regulated when s/he 'shifts the responsibility to students' through advising them to make self-monitoring and to assess their outcomes in addition to objectives' specification and strategies choice. This could be done through teaching 'self-regulatory techniques' as well as 'teacher's support' (Zimmerman et al, 1996, p. 16). According to Zimmerman et al. (1996, pp. 20-21), the teacher may help students raise their self-regulation through making them feel responsible through four types of support: firstly, *modeling* when the teacher investigates and facilitates what is difficult for the learner. Secondly, *encouragement* of learners' progress is better than criticizing their 'failure'. Thirdly, through *task and strategic analysis*, teachers would assist students choose the right strategy that may help them accomplish the task. Finally, the last type of support is *outcome checking and strategy refinement* in which the teacher has to evaluate the final product to decide on the way of strategies' modification.

According to Crabbe, autonomy could make learning "more meaningful" when the learner is 'in charge' (1993, as cited in Griffiths, 2013, p. 32). Cash (2011, p. 81) also confirmed the idea that autonomy results in 'authentic engagement' and confidence. Besides, Macaro (2008, p. 53) concurred that autonomy is not "a withdrawal by the teacher but an active dialogue between teacher and learner" which

leads to ‘improvement’. So, learners’ responsibility does not mean that the teacher drops out his/her responsibility. Cooperation between teachers and learners is highly advocated in the teaching/learning process.

3.9. Factors Promoting Learners’ Autonomy

Many factors could affect learners’ autonomy positively. The following are the most influential variables that could promote autonomous learning:

3.9.1. Metacognitive Strategies

Before defining the concept metacognitive, it is useful to look at the broader notion of *learning strategies* which goes hand in hand with self-directed learning. The word “strategy” originates from the Greek word “*strategia*” that means ‘generalship’ or the art of war (Oxford, 1990, p. 7). Learning strategies were defined by Weinstein and Mayer as “the behaviours and thoughts that a learner engages in during learning that are intended to influence the learners’ encoding process” (1986, as cited in Ellis, 1994, p. 531). This implies that strategies are both beliefs and actions necessary to encrypt the language input. Later, Chamot defined them as “techniques, approaches, or deliberate actions that students take in order to facilitate the learning recall of both linguistic and content area information” (1987, as cited in Ellis, 1994, p. 531). His definition relates strategies to ‘recall’ either in relation to form or meaning. Besides, Rubin viewed learning strategies as “strategies which contribute to the development of the language system which the learner constructs and affect learning directly” (1987, as cited in Ellis, 1994, p. 531). So, strategies are key factors in language progress.

As explained by Oxford, strategies are considered as “specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferrable to new situations” (1990, p. 8). Recently, Brown defined them as “...those specific “attacks” that we make on a given problem. They are

the moment-by-moment techniques that we employ to solve ‘problems’ posed by second language input and output” (2000, p. 122). The use of the word “attacks” highlights the dynamic nature of the learning process which necessitates readiness through permanent predisposition to adapt to what Oxford calls ‘new situations’ (1990, p. 8).

In sum, learning strategies are what learners do to facilitate learning in new situations. They are related to competent learners who use their learning strategies effectively to make their learning self-directed. Besides, strategies are problem-oriented; therefore, each learner has to develop and use his/her own strategies which would help him solve particular problems in learning.

Little related strategies to autonomy since “autonomy entails the conscious deployment of appropriate strategies” which are ‘self-generated’ (1999, p. 78). A distinction should be made between cognitive and meta-cognitive strategies. Cognitive strategies are: “...thought processes used directly in learning which enable learners to deal with the information presented in tasks and materials by working on it in different ways”. However, metacognition originated in the work of the psychologist Flavell (1976, 1977). He defined it as “one’s knowledge concerning one’s cognitive processes and products or anything related to them...metacognition refers, among other things, to the active monitoring...regulation and orchestration of these processes” (as cited in Prichard, 2009, p. 27). So, metacognition is behind cognition. It is what we know about our cognitive capacities and what we could do to control and improve them. Kelly also defined metacognition as ‘a form of self-knowledge’ which stresses that there are two types of learners: ‘a passive learner’ and ‘a reflective, self-aware learner’ (1996, p. 106).

In the same vein, Hedge declared that metacognitive strategies are “what learners do to regulate their learning” (2000, p. 78). They imply objective thinking about one’s learning (Harvey & Chickie-Wolfe, 2007, p. 154). Hence, metacognitive strategies, being problem-oriented, could help learners to tackle daily learning problems and develop their autonomous learning since they are based on self-knowledge, self-awareness, reflection, and objective thinking. The following table by O’Malley et al. (1985, as cited in Brown, 2000, p. 125) explains what metacognitive strategies are:

Table 3.3

Learning Strategies

Metacognitive Strategies	Description
Advance Organizers	Making a general but comprehensive preview of the organizing concept or principle in an anticipated learning activity.
Directed Attention	Deciding in advance to attend in general to a learning task and to ignore irrelevant distractors.
Selective Attention	Deciding in advance to attend to specific aspects of language input or situational details that will cue the retention of language input.
Self-Management	Understanding the conditions that help one learn and arranging for the presence of those conditions.
Functional Planning	Planning for and rehearsing linguistic components necessary to carry out an upcoming language task.
Self-Monitoring	Correcting one’s speech for accuracy in pronunciation, grammar, vocabulary, or for appropriateness related to the setting or to the people who are present.
Delayed Production	Consciously deciding to postpone speaking in order to learn initially through listening comprehension.
Self-Evaluation	Checking the outcomes of one’s own language learning against an internal measure of completeness and accuracy.

Adapted from: Brown, 2000, p. 125

Many teachers do not care for students’ metacognitive skills. Hence, they do not raise their awareness about their use. In this context, Ambrose et al. (2010, p. 191) commented that: “unfortunately, these metacognitive skills tend to fall outside the

content area of most courses, and consequently they are often neglected in instruction. However, helping students to improve their metacognitive skills can hold enormous benefits”. So, the role of teachers is to make students conscious of their metacognitive strategies and to train them about the techniques of using them.

Murray investigated scholars’ findings about the impact of a self-directed course on enhancing students’ metacognitive strategies. In addition to that, he stressed the role of imagination in context and concluded that imagination is closely related to metacognition in self-access learning (2011, p. 88). Besides, Oxford declared that self-direction increases when learners use their learning strategies (1990, p. 10). Consequently, autonomy could be increased through the use of learning strategies generally and metacognitive strategies specifically.

3.9.2. Intrinsic Motivation and Autonomous Motivation

The root of the word “motivation” is the Latin word ‘movêre’ which means ‘to move’ (Oxford, 2003, p. 80). The following quotation encompasses Oxford’s definitions of motivate, motivation and L2 motivation:

‘Motivate’ means to provide with a ‘motive’, that is, an inner drive, impulse, intention, or goal that causes a person to do something or act in a certain way. ‘Motivation’ is the condition of being moved to action or the internal desire to take action. ‘L2 learning motivation’, or ‘L2 motivation’, means the desire to learn another language. (Oxford, 2003, p. 80)

As explained in the quotation, motivation is related to the intention behind one’s actions. Likewise, Harmer defined motivation as “some kind of internal drive which pushes someone to do things in order to achieve something” (2001, p. 51). Two sources of motivation are differentiated: *intrinsic* and *extrinsic* motivation. In the former, there is an internal drive whereas in the latter a reward is expected from the outside (Deci &

Ryan, 1985, p. 5; Harmer, 2001, p. 51; Brown, 2001, p. 76). Maslow stated that ‘self-actualization’/intrinsic motivation could be fulfilled after reaching the basic needs regardless of the presence or the absence of rewards (1970, as cited in Brown, 2001, p. 76). Moreover, two types of motivation in relation to the causes behind language learning are distinguished by Wilkins (1972, p. 184): *integrative* versus *instrumental*. The former indicates language learning as a desire to understand the language and its culture as well as to use it for communication. It is to learn the language as ‘an end in itself’; while, the latter entails the use of the language as a tool to realize one’s objectives.

According to Deci and Ryan, two main types of motivation are indicated in relation to autonomy: *controlled motivation* and *autonomous motivation*. The former is “a sense of being compelled or forced to engage with an activity, without an inner sense of choice, and in order to achieve something that is not directly related to the activity itself” while the latter is “acting volitionally and with a sense of choice and willingness”. In between, there are ‘moderately controlled motivation’ and ‘moderately autonomous motivation’ (1985, as cited in Ronen & Mikulincer, 2014, p. 110).

As proposed by Deci and Ryan, whenever the learner feels demotivated, s/he has to rely on ‘internalization processes’ to cope with a situation. Four types of ‘internalization processes’ exist: ‘external regulation, introjected regulation, identified regulation, and integrated regulation’. *External regulation* is results-oriented since the person becomes motivated to achieve some needed results. *Introjected regulation* is not completely external because it is worthy for the person’s personality to avoid some results. *Identified regulation* implies that one’s actions have to reflect his/her personality. *Integrated regulation* is related to autonomous motivation but not

necessarily intrinsic motivation. It is the highest level of internalization (2000, as cited in Ronen & Mikulincer, 2014, p. 110).

Brown (2001, p. 76) insisted that intrinsic motivation that aims at ‘competence and autonomy’ would definitively lead to success. Besides, Sinclair assured that “the willingness to be autonomous results from intrinsic motivation and varies from time to time and task to task” (2008, p. 243). Unfortunately, students are often not intrinsically motivated to study; they do not study for the sake of knowledge; they rather do so to get grades which permit success by relying most of the time on memorization. Hence, Maslow indicated that “in the ideal college, there would be no credits, no degrees, and no required courses. A person would learn what he wanted to learn” (1971, as cited in Henderson & Nathenson, 1984, p. 29). Directing the learner towards the importance of intrinsic motivation will result in learner-centred learning which goes hand in hand with autonomy. As advised by Brown (2001, p. 79), a move from extrinsic to intrinsic motivation is needed for the purpose of developing autonomy.

3.9.3. Learners’ Styles

The word style is defined by Brown as “enduring tendencies or preferences within an individual”. He also considered styles as “general characteristics of intellectual functioning...that pertain to you as an individual and differentiate you from someone else” (Brown, 2000, p. 113). Learning styles are the effect of “varied learning profiles of each child’s attention control systems, memory and language, and spatial and sequential ordering system” (Levine, 2002, as cited in Harvey & Chikie-Wolfe, 2007, p. 155). Teachers too have to use a multiple set of methods to enrich learners’ investment of learning styles (Harvey & Chikie-Wolfe, 2007, p. 155).

Learners’ styles would affect their autonomy; according to Willing, four styles are categorized: first, *convergers*, who are self-independent, they are ‘by nature

solitary’; second, *conformists*, these are dependent on teachers; *concrete*, they are similar to conformists but they like communication; *communicative*, who are independent and able to communicate outside the classroom without the help of the teacher. Moreover, following the styles depicted by Wright, learners who are ‘rebel’ or ‘oracular’ are more independent than those who are ‘enthusiast’ or ‘participator’ (1987, as cited in Harmer, 2001, pp. 42-43).

3.9.4. Learner Training

Learners have to be trained how to manage, monitor and assess their own learning (Benson, 2011a, p. 12). The teacher has to direct learners towards the right use of strategies on the basis of the type of activities. Learners may become autonomous when the teachers focus on their needs by taking the role of “coach, guide, and consultant” (Cash, 2011, p. 84). According to Ellis and Sinclair, learners’ training is based on the fact that the methods of learning and the strategies used by learners vary according to their feeling and actions. They further claimed that learners’ self-management depends on the information they receive about ‘language and learning’ (as cited in Hamilton, 2013, p. 27).

As explained by Stefanou, teachers’ support is needed to train learners to be autonomous through three types of autonomy support. Firstly, *organizational* autonomy support occurs when students participate in the management of their own learning through decision-making. Secondly, there is *procedural* autonomy support which aims at expressing ideas using ‘media’ by making activities. Thirdly, *cognitive* autonomy support implies self-evaluation that entails ‘deep-level thinking’ (2004, p. 101). Similarly, Hamilton argued that “the move towards learner training reflects the pedagogical view where the teacher supports the learner in developing his/her capacity for increasing levels of independence in learning” (2013, pp. 26-27). In sum,

promoting learners' autonomy and independence is based on cooperation between learners and teachers.

3.9.5. Technology-based Learning

As indicated by Blake (2008, p. 49), CALL (Computer Assisted Language Learning) dominated classrooms since the nineteen sixties (1960s). Three stages of CALL are identified. Firstly, *structural CALL* (1970s-1980s) that adapted the behaviourist view of language learning through the use of the computer. Secondly, *communicative CALL* (1980s-1990s) which entails the development of students' communicative competence through computer interaction. Thirdly, *integrative CALL* that dominates the 21st century and encourages 'content-based instruction' through Internet use (Ken & Warschauer, 2000, as cited in Blake, 2008, p. 54). Eventually, CALL enforced learners' independence and autonomy (Godwin-Jones, 2011, p. 7; Reinders & White, 2016, p. 143).

Furthermore, Computer-Mediated Communication (CMC) led to more collaborative interactions (Blake, 2008, p. 70) as well as self-reflection (Godwin-Jones, 2011, p.7). It also resulted in teaching English by developing students' intercultural communicative competence (Blake, 2008, p. 136). Reinders and White labelled the use of technology to promote autonomy 'technology-mediated autonomy' (2016, p. 144). Electronic learning (e-learning) environments provide online materials which may be used by students to promote self-management skills (Reinders & White, 2016, p. 145). Moreover, social technologies show high levels of autonomy by students (Reinders & White, 2016, p. 149).

Technology paved the way for *distance learning* which is defined as "a technology-supported learning environment in which the learner and the instructor are physically separated by distance, time or both" (Tomei, 2010, p. 331). It is a

comprehensive term that encompasses language learning through ‘teleconference, hybrid, blended’ and ‘virtual’ environments (Blake, 2008, p. 105). Teleconferencing through video or audio-conferencing is used in teaching to provide discussions between students and their tutors (Criscito, 2002, p. 8). *Hybrid courses* are a mixture of classroom learning and independent online learning (Blake, 2008, p. 107). Concerning *blended learning*, Stein and Graham defined them as “a combination of onsite (face-to-face)” and ‘online experiences’ (2014, p. 12). They further explained that blended learning makes use of both physical and online activities through “using connected mobile tools such as smartphones, tablets, and laptops” (2014, p. 9). More importantly, Stein and Graham (2014, p. 14) maintained that blended learning results in flexibility and effective learning. They (2014, p. 21) were also convinced that it could enhance learners’ metacognition and self-reflection.

VLEs (Virtual Learning Environments) are also called Language Management System (LMS) such as ‘Moodle’ which is considered as a flexible environment (Godwin-Jones, 2011, p. 5). They provide learners with an ‘autonomy-supportive environment’ enhanced by teachers’ as well as peers’ feedback (Brooke, 2013, p. 577). Hamilton explained that learners’ use of VLEs in their free time and their practice of EI (English International) is an indicator of autonomy. She (2013, p. 173) designed a framework (see *Appendix M*) which describes learners’ interaction using EI in which students could develop both *reactive* and *proactive* autonomy when learning English as an International language in a VLE where writing and speaking are developed explicitly whereas listening and reading are enhanced implicitly. Here, students are responsible for their own learning by making self-assessment and decisions about their progress.

Furthermore, technology has enhanced learner’s autonomy through *self-access* which is defined as gathering and organizing ‘resources’ for learners (Gardner &

Miller, 1999, p. 8). Four elements could influence “learners’ attitudes towards self-access”: teachers, the educational institution, peers and society. Encouragement by the teacher and ‘funding’ by the institution is highly influential. Also, imitating peers and parents’ advice as well as the role of culture are factors which lead to utilization of self-access (Gardner & Miller, 1999, p. 12). Eventually, self-access to authentic materials which are provided by centres as well as distance learning would enable learners to become autonomous (Benson, 2011, p. 10). Both teachers and learners who use SACs (Self Access Centres) are more flexible and free than those who work in “structured classrooms”. Learners who use them could specify the “content, amount, and pace of their learning” (Reinders & Lewis, 2008, p. 205). So, when using SACs, teachers have to make the classrooms flexible and enable the learners to make self-assessment and evaluate their progress.

Two types of SALL (Self-Access Language Learning) environments are distinguished by Gardner and Miller: *controlled* and *uncontrolled*. The environments are controlled in “classrooms, libraries and self-access centres”. However, there is a lack of control by teachers or counsellors in public places such as “airports and the World Wide Web” or in residences, clubs and home. Consequently, ‘integration’ should be made between the two types of environments (Gardner & Miller, 1999, p. 20). Moreover, the roles of both teachers and learners have changed in SALL. As indicated by Gardner and Miller (1999, p. 14), the role of the teacher is a counsellor, an assessor, an evaluator, a materials developer, a manager, an administrator, and an organizer. However, the role of the learner is a planner (of his/her own learning), an assessor (self and others), an evaluator of SALL, a motivator of (him/herself), an administrator (of his/her own learning), an organizer (of his/her own learning), and an advisor (to other learners).

Kelly raised the importance of counselling in increasing learners' autonomy by making them self-reliant in improving their English proficiency through focusing on three aspects: "strategy awareness, language awareness and self-management" (1996, p. 105). Counselling in education encourages the philosophy of 'autonomy support' which is viewed as "whatever the teacher does to vitalize and support students' classroom experience of autonomy" (Reeve & Su, 2014, p. 353). Hence, *the teacher-as-a counsellor* has to provide advice to students and help them achieve 'self-actualization' (Rao, 1991, p. 27). More importantly, recent trends in education are in favour of *online counselling* in contrast to traditional face-to-face counselling (Evans, 2009, p. 4). Other researchers and teachers highly advocated 'peer counselling' as an effective strategy to provide guidance for students since they are close to their peers more than teachers (Abraham, 2003, p. 17).

Overall, counselling is needed in colleges to assist students and guide them. Within this scope, all types of counselling are appreciate depending on the context and the problem or issue to be tackled. Peer counselling could be effective in relation to easy problems which could be solved without teachers' interference. However, face-to-face or online teacher counselling could be followed in more difficult situations which could hinder learning.

3.9.6. Problem-Based Learning

Problem-solving is a branch of applied cognitive psychology. It studies "how humans solve complex tasks for which they do not have any immediate solutions" (Heine, 2010, p. 27). Problem-Based Learning (PBL) was defined by Prince (2004, p. 223) as: "an instructional method where relevant problems are introduced at the beginning of the instruction cycle and used to provide the context and motivation for the learning that follows". Prince (2004, p. 223) added that PBL "is always active and

usually (but not necessarily) collaborative or cooperative”. In this respect, autonomous students tend to work in “small” groups (Delport & Squire, 2010, p. 187). More importantly, PBL enhances autonomous learning and self-direction (Higgs, 1988, p. 53; Prince, 2004, p. 223; Dong & Yin, 2017, p. 261). Delport and Squire (2010, p. 186) explained that PBL syllabi could develop students’ autonomy through self-control.

Knapper insisted that “the most important task of the school or university is to teach generic problem-solving or ‘learning to learn’ skills” (1988, p. 94). Conversely, Prince considered PBL as a complicated method because it is composed of “a variety of practices” which could lead to progress in learning. He described PBL as “inductive or discovery learning” (2004, p. 229). In this respect, “[t]he ability to generalize problem-solving strategies—that is, to apply previous knowledge and previously successful skills and strategies to new problems—can be conceptualized as a ‘transfer challenge’” (Harvey & Chickie-Wolfe, 2007, p. 219). Eventually, solving problems is facilitated through “*focusing on key information*” (Harvey & Chickie-Wolfe, 2007, p. 219).

3.9.7. Inquiry Project-Based Learning

Project-based learning (P^RBL) dates back to the philosophy of Dewey “learning by doing” in the early 1900s. It emerged in medical education (as cited in Bender, 2012, p. 2). Within this approach, students learn the language through making projects to find solutions for “real-world problems” (Bender, 2012, p. 8). In this context, the role of the teacher is a guide, feedback provider, facilitator and project manager, which leads to self-control and autonomy in both traditional and online environments (Pintor et al. 2009, p. 68). Hence, P^RBL increases self-direction in the classroom through intrinsic motivation (Stoller, 2006, p. 29; Johnson, 2015, p. 17). Other advantages of P^RBL are “authenticity, involvement, engagement, participation, and enjoyment” (Stoller, 2006,

p. 24). So, projects are authentic since they relate what happens in the classroom to the real world. This connection makes the learner more involved.

Although problem-based learning and project-based learning share the same acronym “PBL” and promote autonomy, the latter necessitates more autonomy than the former (Dooly, 2013, p. 80). Also, there is a difference between Task-based Language Learning and PBL, tasks are initiated and designed by the teacher whereas projects are created by the student (Dooly, 2013, p. 81). What is more interesting is that “different types of project-based learning offer students different degrees of autonomy” (Davis, 2009, p. 218). Davis (2009, p. 218) explained that there are three kinds of projects: ‘task projects’, ‘discipline projects’, and ‘problem projects’. In the last type, students’ level of autonomy is high. However, it decreases in type two where the topic is decided by the teacher who sheds light on some approaches from which the student could select one. In type one, the student is more restricted because the project and the approach are imposed by the teacher.

Integrating technology in P^RBL may raise learners’ self-reliance, self-assessment and motivation (Moursund, 1999, p. 7). As a general comment, teachers have to implement project-based learning by giving more freedom for the learner to choose the topic, method, and design of the project according to his/her needs and styles. In this respect, the learner is intended to set the objectives of his/her project which should be in line with the content of the syllabus. Also, teachers’ guidance is sought whenever facilitation is needed by the teacher. More importantly, using technology in P^RBL could lead to higher autonomy and online assessment and feedback by the teacher.

IBL (Inquiry-based Learning) focuses on critical thinking and problem solving. It starts by questions’ formulation and problem specification (Harada & Yoshina, 2004,

as cited in Chu et al., 2017, p. 9). Inquiry project-based Learning emerged by integrating inquiry-based learning and project-based learning. This could be achieved through the use of group works in making the projects (Krajcik et al., 1998, as cited in Chu et al., 2017, p. 36). Within this scope, the student cooperates with his/her peers by identifying a problem and working in teams to solve it and write the report using the computer (Chu, 2009, as cited in Chu et al., 2017, p. 7). To implement IBL effectively, collaboration is needed as follows:

1. Team-teaching amongst school teachers,
2. School teachers–school librarian collaboration, and
3. Collaboration among school administrators, school teachers, and parents.

(Chu et al., 2017, p. 36)

Eventually, teachers have to work cooperatively with each other on the one hand, and with administrators and parents, on the other hand, in order to develop students' critical thinking and problem-based learning.

3.9.8. Teacher Autonomy

Students' autonomy cannot be promoted when teachers are not autonomous (Little, 2000, as cited in Lamb, 2008, 278). The relationship between teacher autonomy and learner autonomy includes three necessary aspects: first, critical reflection is the key towards teachers' enhancement of their career. Secondly, teachers have to be committed to developing students' autonomy. Thirdly, teachers' autonomy as well as students' autonomy are promoted through teachers' supportive "interventions" (Lamb, 2008, p. 279). By contrast, teachers who do not support autonomy follow "controlling style, which is the interpersonal sentiment and behaviour teachers provide during instruction to pressure students to think, feel, or behave in a specific teacher-defined way" (Reeve et al., 2004, as cited in Reeve & Su, 2014, p. 353). Consequently,

controlled teaching prohibits learners' interaction and engagement since they do not feel free to act and communicate in EFL contexts.

The relationship between teacher autonomy and learner autonomy is a cyclical process including three spiral phases. It starts with the 'teacher as language or teaching-learner'. This indicates that *teaching is learning* because the teacher develops his/her professional career when s/he teaches. Then, the second phase is 'teacher as reflective practitioner'. In this phase, self-reflection is highly recommended for teachers' professional development. After that, the teacher becomes 'innovator-learner in developing autonomy' when s/he looks for creative ways to promote learners' autonomy. Effectively, a new cycle re-starts where the teacher is a language learner again...etc. (Lamb, 2008, p. 280). Also, the learners' role is influential since "learner autonomy is crucial for the lecturer's autonomy" (Sinclair, 2008, p. 243).

3.10. Stages of Learner Autonomy Development

Curran (1976, as cited in Candy, 1988, p. 67) specified five stages for the development of learners' autonomy. The first stage is *embryonic stage* where there is 'total dependency' on others. The second stage is *self-assertion stage* when the "learner attempts to move ahead independently". The third stage is *separation or birth stage*. Here, the "learner functions independently in the language". The fourth stage is the *reversal stage* when the "learner becomes open to correction". The fifth stage is *adult stage*. In this stage, learners have a 'positive self-concept', and they are 'fully autonomous'. Moreover, Grow (1991, as cited in Knowles et al., 2015, p. 173) indicated four stages to promote learning autonomy as follows:

Table 3.4

Grow's Stages in Learning Autonomy

Stage	Student	Teacher	Examples
Stage 1	Dependent	Authority, coach	Coaching with immediate feedback, drill. Informational lecture.
Stage 2	Interested	Motivator, guide	Overcoming deficiencies and resistance. Inspiring lecture plus guided discussion. Goal –setting and learning strategies.
Stage 3	Involved	Facilitator	Discussion facilitated by teacher who participates as equal. Seminar. Group projects. Internship, dissertation, individual work or self-directed study group.
Stage 4	Self-directed	Consultant, delegator	

Adapted from: Grow, 1991, as cited in Knowles et al, 2015, p. 173.

As indicated in Table 3.4, in the first stage, the learner is *dependent* on the teacher who is completely authoritative and ‘informational’. In the second stage, the student is *interested* in teachers’ information and motivated to discuss the lesson following teachers’ guidance. In stage three, the student becomes *involved* in the content which is designed in cooperation with the teacher who is a ‘facilitator’. In the last stage, the student is *self-directed* and autonomous while the teacher is a ‘consultant/ delegator’. Nunan (1997, p. 195) designed a model of learner autonomy comprising five levels as explained in the following table:

Table 3.5

Nunan's Five-level Model of Learner Autonomy (1997)

Level	Learner Action	Content	Process
1	Awareness	Learners are made aware of the pedagogical goals and content of the materials they are using.	Learners identify strategy implications of pedagogical tasks and identify their own preferred learning styles/strategies.
2	Involvement	Learners are involved in selecting their own goals from a range of alternatives on offer.	Learners make choices among a range of options.
3	Intervention	Learners are involved in modifying and adapting the goals and contents of the learning program.	Learners modify/ adapt tasks.
4	Creation	Learners create their own goals and objectives.	Learners create their own tasks.
5	Transcendence	Learners go beyond the classroom and make links between the content of classroom learning and the world.	Learners become teachers and researchers.

Adapted from: Nunan, 1997, p. 195.

As shown in Table 3.5, students' actions have five subsequent levels: *awareness, involvement, intervention, creation, and transcendence*. 'Awareness' is the first level since students' consciousness raising is needed of both 'goals' and 'content', which necessitates learners' specification of 'strategies and styles' to be followed by them. The second level which is 'involvement' ensures students' involvement in the selection of the goals which is a necessary step in the curriculum. The third level (intervention) assures that students could contribute to the learning process by changing the 'content' and 'goals' according to their needs. This requires needs' analysis done by students themselves. In the fourth level, students show more autonomy through 'creation' when they are allowed to specify their 'goals' by designing their own tasks. Here, autonomy is in its highest degree because students have reached creativity and self-guidance. The last/fifth level 'transcendence' is 'beyond' the classroom's boundaries where the students apply what they learned in the classroom in the real world. At this level, the students are highly independent and self-reliant. They are able to become teachers and researchers.

Scharle and Szabo (2000, p. 9) introduced three stages for promoting autonomy in their model: "raising awareness, changing attitudes and transferring roles". Raising awareness is making learners aware about their 'inner processes' to allow for 'discoveries' through the guidance of the teacher because they are not autonomous at this stage. In the second stage, learners feel more responsible since they start 'practicing new roles' which needs 'practice' and flexibility. Transferring role is the last stage where the teacher changes his/her 'classroom management' by assigning new roles for the student and negotiating with him/her the content of 'tasks'. Furthermore, Nunan provided nine steps to learner autonomy as follows:

1. Make instruction goals clear to learners.
2. Allow learners to create their own goals.
3. Encourage learners to use their second language outside the classroom.
4. Raise awareness of learning processes.
5. Help learners identify their own preferred styles and strategies.
6. Encourage learner choice.
7. Allow learners to generate their own tasks.
8. Encourage learners to become teachers.
9. Encourage learners to become researchers. (2003, pp. 196-202)

As indicated in the previous quotation, the teacher has to give students clear ‘instruction’. Then, s/he would better make them specify their ‘own goals’. After that, the teacher ought to advise them to use the target language ‘outside the classroom’. Furthermore, students should be aware of how learning takes place. Besides, they have to choose their favourite ‘styles and strategies’ as well as their choices of learning. Moreover, students need to design their own ‘tasks’. Finally, they have to be “encouraged to become teachers and researchers”. Hence, goal-setting and awareness in addition to learning styles and strategies could help students become autonomous by designing their own activities so that they develop their career as future teachers/researchers.

Cash (2011, pp. 80-81) also designed a model of autonomy which is labelled *the Teaching and Learning Continuum* (TLC). It is a framework that guides teachers and students towards autonomous learning (see *Appendix N*). The model includes four levels followed by teachers to raise students’ autonomy: didactic, facilitated, coached and consultative. Besides, Cash explained the role of teacher, the role of the student, the level of independence and learning focus at each level. A *didactic* level entails ‘direct

instruction' by the teacher when the learner is a mere passive recipient of 'factual' knowledge and who is totally directed by the teacher. In a *facilitated* level, the learner starts to be autonomous by creating 'meaning'. However, s/he is still 'guided' by the teacher where the focus is 'procedural' learning. The 'coached' level ensures that there is a teacher-learner 'collaboration' so that the learners promote 'self-regulation' to improve their 'skills' on a 'conceptual' basis of learning. At the *consultative* level, the teacher is just an advisor and the learner is autonomous through 'self-guided' learning where the focus of learning is on 'metacognition and self-awareness'. Moreover, Dang's Model (2012, p. 56) views autonomy from four perspectives as follows:

Table 3.6

Dang's Model of Learner Autonomy

	-Psychological perspective		Cognitive processes	-Cognitively identifying learning styles -Cognitively modifying tasks. -Cognitively creating new task.
Learner Autonomy	-Socio-cultural perspective -Political-critical perspective	Performed in	Demonstrated behaviours (Classroom-like situation)	-Performing selected learning styles -Modifying tasks -Creating new tasks
	-Technical perspective		Situation management (beyond classroom)	-Identifying resources from contexts -Modifying the resources -Creating new resources.

Adapted from: Dang, 2012, p. 56.

As shown in Table 3.6, the psychological perspective of autonomy views autonomy as a cognitive process which takes into consideration learners' styles and design of tasks. In the socio-cultural perspective and the political-critical perspectives, learners' behaviour is context-oriented. Finally, in the technical perspective, learners are the managers of their own learning situations out of the classroom. Consequently, it is observed that in all the models, nearly identical stages of the development of learner

autonomy are identified starting from total dependence on the teacher and ending in complete detachment and autonomy.

3.11. Measuring Autonomy

Concerning ‘human autonomy’ (as opposed to *educational autonomy*), various researchers/psychologists attempted to design scales for measuring it, for example the ‘Autonomy Scale’ (Bekker, 1993, p. 180) and the ‘Index of Autonomous Functioning (IAF)’ (Weinstein, Przybylski, & Ryan 2012, p. 397). Bekker’s *Autonomy Scale* which includes forty-two (42) items was later changed by Bekker and Assen (2006, p. 51) into the *Autonomy-Connectedness Scale* (ACS) including only thirty (30) items.

Although measuring ‘autonomy in learning’ is still a debatable issue, effective ways for measuring autonomy have to be explored (Murase, 2007, p. 1). Benson argued that “If we aim to help learners to become more autonomous, we should at least have some ways of judging whether we have been successful or not” (2001, p. 54). This implies the necessity for looking for some effective ways to measure autonomy. However, dealing with autonomy as a measurable variable is a complicated issue (Benson, 2010, p. 77). An effective attempt to measure autonomy should be preceded by identifying the exact ‘components’ of autonomy including the ‘non-observable’ ones which makes measurability impossible (Benson, 2010, p. 78). Three problems exist in relation to the measurability of autonomy: ‘the multidimensionality of autonomy’, ‘autonomy as a capacity’ and ‘autonomy as a developmental process’ (Benson, 2010, pp. 82-83).

Some scales for measuring autonomous learning were designed. Guglielmino (1977) introduced a *Self-Directed Learning Readiness Scale* (SDLRS) in his PhD. It is also called ‘the Learning Preference Assessment’ (LPA). Self-directed learning readiness is defined as “the degree the individual possesses the attitudes, abilities and

personality characteristics necessary for self-directed learning” (Wiley, King, & Tague., 1983, as cited in Fisher et al., 2001, p. 517). However, the scale was criticized by Field in 1989 and Candy in 1991 due to lack of testing validity (as cited in Fisher et al., 2001, p. 518). Fisher et al.’s evaluation of the SDLRS resulted in lack of ‘construct validity and reliability’ (2001, p. 520).

Fisher et al. (2001, p. 523) created a new SDLRS for nursing education in Australia (see *Appendix O*). The latter is composed of forty items which could be arranged into three main parts: “self-management (13 items), willingness to learn (12 items) and self-regulatory abilities (15 items)” (Torabi, Abdollahi, Aslani, & Bahrami, 2013, p. 996). Many researchers validated the scale; it was assessed by Torabi et al. who conducted a descriptive survey with 3463 informants in Iran. They found that the scale’s forty-two items are ‘homogenous’ and that it is a ‘suitable’ scale for measuring students’ autonomy (2013, p. 999). The scale was also tested by Hawkins, Hertweck, Laird, and Goreczny with 249 students enrolled in a ‘Physician Assistant programme’ to investigate their self-direction as well as the effect of PBL on their readiness. The study revealed that students show a high level of self-direction and that they already know about PBL because it is a prerequisite for entering the programme (2013, p. 18). The scale was evaluated again by Soliman and Al-Shaikh in relation to Saudi medical students and proved to be effective (2015, p. 802).

A Turkish version (translated) of Fisher et al.’s SDRLS (2001) was created in 2006 by Kocaman et al. (as cited in Cadorin, Cheng, & Palese, 2016, p. 3). In 2007, Williamson created *Self-Rating Scale of Self-Directed Learning* (SRSSDL) in the United Kingdom (as cited in Cadorin et al. 2016, p. 4). Fisher and King (2010) developed a new SDRLS in Australia (as cited in Cadorin et al., 2016, p. 3). In 2010 too, Cheng et al. created the Self-Directed Learning Instrument (SDLI) in Taiwan (as

cited in Cadorin et al., 2016, p. 4). Another attempt to design a short autonomous learning scale was done by Macaskill and Taylor in the United Kingdom (2010, p. 17). It includes 12 items (see *Appendix P*). In the USA, Williams and Brown designed their own SDRLS in 2013 (as cited in Cadorin et al. 2016, p. 3). In the same year, Cadorin et al. produced their translated Italian version of the SRSSDL. In 2014, Shen et al. designed their translated Chinese version of SDLI (as cited in Cadorin et al., 2016, p. 4).

To test the validity of the Italian version of the SRSSDL and the SDLI, Cadorin et al. conducted a descriptive study in Italy in 2014 including 428 nursing students. They found that the correlation coefficient between the two tools is high since “*r*” equals 0.815 and that both tools could be reliable to reflect students’ self-directed learning (as cited in Cadorin et al., 2016, p. 7). Kawtharani and Khachfe also tested the SRSSDL in Lebanon through a quantitative descriptive method by relying on a purposive sample that includes 477 participants. Findings indicated that students have a high level of SDLR. It was highly recommended that each university should make “a yearly continuous assessment of students’ SDLR (2016).

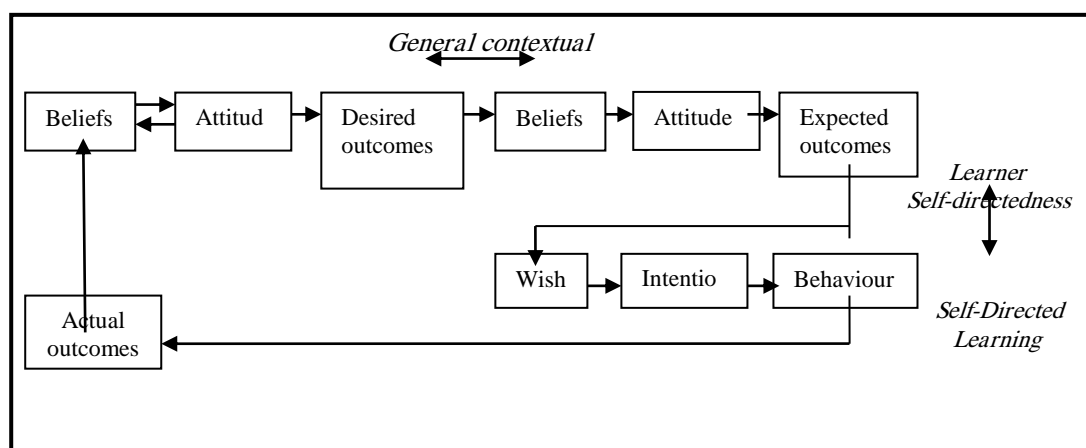
As a general comment, it is observed that much interest emerged in attempts to design new autonomy/Self-Directed Learning measuring scales or to validate existing scales and instruments in many countries like Australia, USA, UK, Turkey, Italy, China, Taiwan, Lebanon and Saudi Arabia.

3.12. Models of Learner Autonomy

Different models of learner autonomy and self-directed learning were proposed by many scholars and researchers. Littlewood (1996, as cited in Benson, 2011a, p. 62) introduced a ‘three-stage model’ which encompasses: ‘*autonomy as a communicator, autonomy as a learner, and autonomy as a person*’. The first type is being an

independent learner whose main aim is communication in different situations. The second type is to act actively and to be self-reliant during the different contexts of language learning. The third type is the most supreme goal behind being an autonomous learner. Moreover, Ponton and Carr (1999, as cited in Ponton & Rhea, 2006, p. 42) designed a *model of self-directed learning* as indicated in the following figure:

Figure 3.6. Ponton and Carr’s Model of Self-Directed Learning (1999)



Note. Adapted from: Ponton & Rhea, 2006, p. 42.

As shown in Figure 3.6., two main factors are indicated: general and contextual. General factors are related to “beliefs, attitude, and desired outcomes”. Contextual factors include “beliefs, attitude and expected outcomes”. Both general and contextual factors affect ‘learner self-directedness’ and end in self-directed learning due to learner’s wish, intention, and behaviour. The latter influences ‘actual outcomes’ according to the general beliefs.

Macaro (2008, p. 47) proposed a model of autonomy including three dimensions: *autonomy of language competence*, *autonomy of language learning competence* and *autonomy of learner choice*. The first dimension includes autonomy of “grammatical competence, sociolinguistic competence and strategic competence” by “moving gradually away from the language of others to the language of the self” (2008, p. 48). The second dimension implies the use of both cognitive and metacognitive

strategies to learn a language in a suitable learning environment (2008, pp. 51-52). The third dimension which is *autonomy of learner choice* is the free choice of goals that are 'specific and explicit' and 'attainable' in order to promote self-efficacy (2008, pp. 56-57).

Conclusion

Teachers have to provide supportive environments for students who could raise their degree of autonomy on the basis of many inter-related factors. The most important ones are teacher autonomy, students' training to use their metacognitive strategies, and the use of technology. More importantly, teachers should encourage students' autonomous learning outside the classroom. They have to enhance learners' self-control, self-confidence and responsibility through problem and project based learning environments. In this respect, counselling and tele-collaboration could be highly influential in promoting autonomy in both formal and informal settings.

Students' autonomy could be promoted through virtual learning environments and self-access centres. However, being autonomous does not mean free use of information by violating integrity in the digital age. Self-reliant students would be honest researchers who are able to assess knowledge through critical thinking. They have to preserve intellectual honesty by making valid research through the use of citation and paraphrasing. Meanwhile, their autonomy could enable them to develop their online research skills.

Chapter Four: Experimental and Field Investigation

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Chapter Four

Experimental and Field Investigation

“The true method of knowledge is experiment”

(Blake, as cited in Erdman & Bloom, 2008, p. 1)

Introduction

Autonomous research denotes searching independently for information either in printed or electronic/digital sources; however, it does not entail writing freely without citing the sources and crediting information through in-text citation. Hence, the current study investigates the impact of autonomy as well as integrity on undergraduates' research quality. This enquiry was carried out mainly through the experimental method.

In the exploratory phase, students' attitudes towards autonomy and plagiarism were evaluated as well as their academic writing and research quality through the use of a questionnaire that aims at testing the second hypothesis that autonomy may lead to good research quality. Moreover, a plagiarism test was administered to evaluate the problem of plagiarism within the department of English. Furthermore, teachers' interview yielded important perceptions and attitudes towards students' research and academic honesty. It was conducted with three teachers of second-year students who constitute the sample of our study. More importantly, an experiment was conducted to test the first hypothesis and prove causation between training students to use research techniques through extensive practice of citation, paraphrasing, quoting, and referencing as well as sanctioning plagiarists and high research quality.

In the present chapter, the experimental design which was followed to investigate the phenomenon of plagiarism, namely the Solomon four-group design is discussed. Next, the alternative/research hypotheses and the null hypotheses are stated. Then, light is shed on the sample and the whole population of the study. Subsequently, the aims and the content of the experiment as well as its administration are tackled.

Eventually, the students' questionnaire and the teachers' interview as tools in the introductory stage of the study are described by clarifying their aims. In addition, the objectives and the nature of the plagiarism test and the interview are indicated.

4.1. The Experimental Study

To test the first research hypothesis, an experiment was conducted to prove causation between the two variables: extensive practice of research techniques mainly citation, paraphrasing, quoting, and referencing as well as plagiarist's sanctioning, on the one hand, and the quality of undergraduates' research, on the other hand. The aims of the experiment, the research hypothesis, the experimental design, the participants, and the content of the experiment are explained in the following subtitles.

4.1.1. Aims of the Experiment

The objective behind experimentation is to test causation (Smith, 1991, as cited in Cohen et al., 2000, p. 211). Hence, the aim of the current experimental research is to know whether knowledge and extensive practice of research techniques and raising students' awareness about the importance of plagiarism avoidance as well as sanctioning could result in good research quality manifested in written assignments of students because theoretical guidelines are not enough. Also, training students to conduct research independently by practicing its techniques mainly through self-reliance may be the cause behind academic integrity and high research-quality. As explained by Glaser, training is used when:

[t]he skill to be learned is highly complex, and the relevant performance is difficult to analyse and to specify, then the student may be educated more generally by providing a foundation of behaviour on which the individual is expected to generalize or to transfer to similar or novel situations. (1962, as cited in Buckley & Caple, 2007, p. 6)

As discussed in the previous quotation, training students to use citation techniques could be helpful as many students face difficulties in paraphrasing and citation. Once these techniques are acquired, students could use them in different situations. Glaser added that training is different from learning since the former could help them ‘perform specific tasks’ while the latter “provides more theoretical and conceptual frameworks designed to stimulate an individual’s analytical and critical abilities” (1962, as cited in Buckley & Caple, 2009, p. 7). Another important difference between the two is that training has quick effects whereas learning leads to change “in the longer term” (1962, as cited in Buckley & Caple, 2007, p. 7).

However, both training and learning depends on each other, learning cannot occur without training and training would not be successful without previous knowledge (Buckley & Caple, 2007, p. 8). In our context, students’ previous knowledge of vocabulary, grammar, and paraphrasing could help them re-word new expressions and words. In this context, the role of the teacher is a manager, an organizer, a facilitator, a feedback provider, and a counsellor as far as academic integrity is concerned.

4.1.2. Research Hypotheses

Proving the causal relationship between the two variables of the hypothesis is the aim of the current experiment. Two hypotheses that are implicitly inter-related are made in this research. The first objective was to discover the role of training students to use research techniques on the one hand, and plagiarists’ sanctioning on the other hand, in improving the quality of students’ research work. Hence, the first hypothesis supposed that a causal relation exists between knowledge and practice of research techniques through training and the amelioration of undergraduates’ academic research quality. Hence, our objective was to prove the following research hypotheses:

H₁: If students are trained to use research techniques (citation, paraphrasing, quoting, and referencing) and sanctioned for plagiarism, they will avoid plagiarism. Thus, their research quality would be good.

In this context, *the null hypothesis* (H_{0-1}) maintained that no relationship exists between ‘training students to use research techniques and plagiarists’ sanctioning’ on one hand and high-quality research on the other hand. Hence, it was hypothesized that:

H₀₋₁: If students are trained to use research techniques (citation, paraphrasing, quoting, and referencing) and sanctioned for plagiarism, they will not avoid plagiarism. Thus, their research quality would not be high.

The second hypothesis presumes that autonomy may lead to the improvement of undergraduates’ research. Autonomy is a qualitative variable that could not be manipulated and controlled through experimentation. As indicated by Whitney and Feldt, questionnaires could be used to test a hypothesis (1973, p. 365); hence, the students’ questionnaire was administered to test it. Thus, we hypothesize that:

H₂: If students work autonomously, the quality of their research will improve. This implies that H_{2-0} maintains that no relationship exists between the two variables. Hence, it is suggested that:

H₀₋₂: If students work autonomously, the quality of their research will not improve.

The two hypotheses will be confirmed or rejected according to the findings from the students’ questionnaire and the results from the experiment through the pre-test as well as the post-test.

In summary, the first aim is to discover the role of training students to conduct research through practicing research techniques as well as plagiarists’ sanctioning in improving the quality of students’ research work; while, the second aim is to prove or disprove that autonomy could lead to good research quality. Consequently, to reach the

first aim, an experiment was conducted by training students to use citation, paraphrasing, quoting, and referencing through extensive practice of them in both APA and MLA. To accomplish the second aim, the students' questionnaire was administered to gain quantitative data. Also, students were trained to work autonomously by conducting research independently. Simultaneously, their awareness about promoting autonomy in research was raised through five levels following Willison and O'Regan's *Research Skill Development Framework* (2016) (see *Appendix F*).

Plagiarists' sanctioning was used as a deterrence strategy during the experimental study to prevent plagiarism since some students would plagiarize others' words or ideas even when they know the research techniques. So, the experimental study encompasses five main features:

1. Raising students' awareness about autonomous research by introducing the Willison and O'Regan's *Research Skill Development Framework* (2016).
2. Training students to use research techniques (citation, paraphrasing, quoting, and referencing) through practicing the APA and MLA styles.
3. Raising students' awareness of the nature of plagiarism and the necessity of plagiarism avoidance.
4. Explaining to students what is meant by honour (ethical) codes and plagiarism pledges.
5. Plagiarists' sanctioning as a deterrence strategy.

4.1.3. The Solomon Four-group Design

The Solomon four-group design was followed in the present experimental study through random assignment of four groups. It is the best design for ensuring internal validity since the design includes two treatment groups. Hence, the researcher could compare the two groups statistically to prove the effectiveness of the experiment. So,

replication is possible within the design, which could enable the ‘generalizability’ of the findings. As a result, external validity is also ensured (Heppner, Wampold, & Kivlighan, 2008, p. 156).

In this design, one group is experimental and the other three groups are control groups. Two groups have a pre-test: the experimental group and the control group. However, the other two additional control groups do not have a pre-test. Although one of the additional groups receives a treatment, it is considered as a control group due to the absence of the pre-test. The aim from these extra groups that do not have a pre-test is to eliminate the effect of the pre-test on the post-test and to ensure that the changes in the post-test results are due to the experiment (Grembowski, 2001, p. 88). Practice effects or test-retest the same subjects again in relation to the same topic could lead to biased results because students’ awareness is raised through the first test. Longer time spans between the pre-test and the post-test could diminish practice effects. However, it leads to undesirable ‘differences in learning’ (Bachman, 1990, p. 182). The design is illustrated as follows:

Figure 4.1. The Solomon four-group design

R	O ₁	X	O ₂
R	O ₃		O ₄
R		X	O ₅
R			O ₆

Adapted from: Grembowski, 2001, p. 88.

Concerning the symbols used in the figure, they are explained by Campbell and Stanely (1963, as cited in Cohen et al., 2000, p. 212) as follows: R stands for Randomization; O stands for Observation which indicates measurement or Outcome; X stands for Experimentation. Consequently, R represents the four random groups. O₁ and O₃ represent the pre-tests in both the experimental and the control group. While, O₂,

O₄, O₅, O₆ denote ‘outcome’ measured in the post-test in groups one, two, three, and four subsequently. X symbolizes the experiment in group one and three. We inserted the following table to explain the design in a simple manner:

Table 4.1

The Solomon Four-group Design

Random groups	Pre-test	Experiment	Post-test
Group 1: experimental	+	+	+
Group 2: control	+		+
Group 3: control		+	+
Group 4: control			+

4.1.4. Subjects of the Experiment

The Population for the experiment includes second-year students of English at the University of 8 Mai 1945, Guelma. Four groups were chosen randomly from five groups, among which one group was randomly chosen to be experimental and three control as indicated in the Solomon-four group design. For a group to be called “experimental”, it should receive a pre-test, an experiment, and a post-test. Therefore, group three is control although it receives the experiment. The whole population of second-year students include one hundred and forty (140) students. However, the four groups include one-hundred and ten (110) students. The experimental group includes twenty-seven (27) students, the control group thirty-one (31) students, the third group twenty-five (25) students, and the fourth group twenty-seven (27) students.

4.1.5. The Pre-test and the Post-test

A pre-test was administered to check whether the experimental and control group had the same level in academic writing and integrity. The *Generic Rubric* of Professor *Amanda French* (2009) was used as a scoring profile for students’ written assignments because it assesses the quality of writing and takes into consideration citation and paraphrasing as indicated in the following table:

Table 4.2

The Generic Rubric

A = outstanding performance	B = above average-very good	C = average-good	D = satisfactory performance	E = fail
Fully identifies a range of appropriate ideas, concepts and principles raised by the assignment.	Identifies some ideas, concepts and principles raised by the assignment.	Identifies most of the ideas, concepts and principles raised by the assignment.	Limited ability to identify ideas, concepts and principles raised by the assignment.	Very limited ability to identify appropriate ideas, concepts and principles raised by the assignment.
Excellent ability to apply ideas, concepts and principles covered in the module.	Good application of ideas, concepts and principles covered in the module.	Some application of ideas and knowledge covered in the module.	Limited application of ideas, concepts and knowledge covered in the module.	Very little application of ideas and knowledge covered in the module.
Is structured very effectively.	Is structured effectively.	Could have been structured more effectively.	Some problems with structuring the assignment.	Structure of the assignment very confused.
Utilizes a wide range of material from independent sources to support and substantiate assignment remit.	Utilizes a good range of material from independent sources to support and substantiate own ideas/opinions.	Utilizes some material from independent sources to support assignment remit. Contained occasional sweeping or unjustified statements.	Utilizes very little appropriate material from independent sources to support assignment remit. Is often descriptive. Irrelevant material included. Contained mainly sweeping or unjustified statements.	Utilizes very little appropriate material from independent sources to support assignment remit. Is often descriptive. Irrelevant material included. Contained mainly sweeping or unjustified statements.

(Continued)

(continuation)

Uses accurate and appropriate citation. Quotes and paraphrased materials are incorporated very effectively into the text.	Generally uses accurate and appropriate citation. Quotes and paraphrased materials are incorporated effectively into the text.	Some errors in accuracy and appropriateness of citation. Quotes and paraphrasing were sometimes incorporated effectively into the text.	Limited accuracy and appropriateness of citations. Quotes and paraphrasing were often not incorporated effectively into the text.	Lack of reference list and inaccurate and largely inappropriate use of citations. Quotes and paraphrasing were rarely incorporated effectively into the text.
The writing is clear and fluent with very occasional, minor errors in grammar, spelling or punctuation.	The writing is clear and fluent. The grammar, spelling and punctuation is mostly accurate.	The writing is easy to understand but there were systematic errors in grammar, spelling and punctuation.	The writing is not always easy to understand. There were many errors in grammar, spelling and punctuation.	The writing was frequently not easy to follow. There were many errors of spelling; grammar and function hindered understanding.

Adapted from: French, Amanda (as cited in Burke & Jackie, 2010, p. 58)

The pre-test was administered in winter holidays (December, 21st to January, 7th). During the last week of the first semester, students were asked to email a written assignment to the teacher in which they define ‘the experimental method’ and its aim. Their writing was assessed following the *Generic Rubric* of Amanda. Also, electronic plagiarism detection was used as an effective tool for detecting plagiarism in students’ assignments by applying the free software ‘Plagiarism Checker-X’.

A post-test was run after the experiment to prove the effectiveness of the experiment in the experimental group. It assessed the students’ research quality concerning academic writing and integrity using the same rubric. The test was given to the groups on May the 6th and the 7th (the last week of the semester) in the form of a written assignment that had to be emailed to the teacher. Students were asked to explain what is meant by ‘Action Research’ by using what they learnt about APA in-text citation and referencing.

4.1.6. The Plagiarism Test

A plagiarism test was administered to check the students’ written assignments in the pre-test and the post-test. The objective of the test is to check plagiarism in the students’ written assignments. The *Plagiarism Checker-X* software was used to scan the students’ documents since it is more confidential. As advised by the *Plagiarism Checker-X* software, “stop sending your confidential documents over the Internet”. This is due to the fact that some detection software tools steal the downloaded documents “to sell” them later in Paper Mills (Davis, 2009, p. 353). The students’ assignments were inserted or submitted by uploading the document. Then, the software *report* pointed out the percentage of *duplicate* texts and the percentage of *original* texts. Also, it indicated the sources from where information was plagiarized and the percentage of similarity for

each source (*see Appendix Q for a sample student scanned paper*). Further applications in the *Plagiarism Checker-X Software* may include comparing two or more texts.

4.1.7. Content of the Experiment

Explaining for students the nature of plagiarism and warning them from it through some theoretical guidelines about citation styles without extensive practice is not enough. It is observed that students still plagiarize especially with the absence of punishment by the majority of teachers. What students really need is a detailed practice through training starting from the nature of plagiarism and ending in autonomous research using citation styles, paraphrasing, quoting and referencing. Hence, students' awareness about the possible forms of plagiarism was raised to train students to avoid them. Furthermore, the last version of the APA style of writing (2006) was taught and practiced by students in a detailed manner.

Moreover, extensive use of paraphrasing and quoting exercises could help students understand and perform these research techniques. To achieve that, students were given copies of some pages from three books about the same topic (for instance, academic writing). Then they were asked to perform a task. For example, they were asked to define academic writing through using information from the three books by applying citation, paraphrasing, quoting and referencing in APA. Books vary from a simple book to an edition or a journal article so that students gain experience about all sorts of sources. Then, the teacher checks their work and gives remarks that help students correct their own work. This aim of self-correction is making students perform self-assessment and self-guidance gradually, by detaching them from teachers' guidance and direction to self-guidance which represents a strong indicator of students' autonomy. When students are not able to correct their works, we resorted to peers' correction or teacher's correction.

4.1.8. Conducting the Experiment

The experiment was conducted in the department of English, University of 8 Mai 1945, Guelma, at the end of the first semestre of the academic year 2017-2018. It lasted for fourteen weeks, starting from January 7th, to May 10th. As indicated in the Solomon four-group design, two control groups without pre-test were added to avoid the effect of the pre-test on the post-test results: group three and group four. In the experimental group, the students' awareness about integrity and the nature of plagiarism was raised as well as the importance of academic writing. Throughout the experimental phase, the students in the first/experimental group and the third group were trained to conduct research. They received extensive practice of research techniques including paraphrasing, summarizing, quoting, referencing, and the use of citation styles (APA and MLA). Although the third group received the experiment, it was not labelled 'experimental' since it did not receive a pre-test.

Simultaneously, students were warned about plagiarism especially by informing them about 'the anti-plagiarism code number 933' (Ministry of Higher Education and Scientific Research, 2016), and the consequences of violating academic honesty. Sanctions were used as a deterrence strategy to prevent plagiarism; students who plagiarized got lower/bad marks. Students were informed about the levels of autonomous research and the aspects ('facets') of research by providing them with Willison and O'Regan's *Research Skill Development Framework (RSDF, 2016)* (see *Appendix F*). The RSDF (2016) is developed from the RSDF that was designed in 2006. Its aim is "the move from 'search' to 'research'" by developing students' metacognitive strategies. In the RSDF (2016), students have to be involved in six aspects of research:

1. Embark and clarify
2. Find and generate
3. Evaluate and reflect
4. Organize and manage
5. Analyse and synthesize
6. Communicate and apply (Willison & O'Regan, 2016)

As clarified by Willison and O'Regan in their table which illustrates the RSDF (2016), in the first aspect, students are 'curious'. They are driven by inquisitiveness and wonder. Therefore, they 'initiate' research and raise questions about different problems/phenomena. In the second aspect, students are 'determined' to specify a suitable 'methodology' to 'find and generate' data. In the third aspect, students are 'discerning' since they are able to assess the available sources and the included information by making selections of valid data. In the fourth aspect, they are 'harmonizing' because they 'organize and manage' information by identifying its different 'themes'. In the fifth aspect, students are 'creative' because they follow critical thinking when analysing and synthesizing data either by working individually or collaboratively in order to reach 'understanding'. In the sixth aspect, students are 'constructive' since they reach performance through communication by relating interaction and feedback to application of what they have understood. Throughout these aspects of research, students take into account Ethical, Cultural, Social and Team (ECST) features.

Furthermore, students develop autonomous research by moving gradually from 'prescribed researching' to 'unbounded researching'. Throughout their development of autonomy in research, five levels are witnessed by students. The first level is 'prescribed researching' which is completely guided by the teacher. The second level is

'bounded researching' when the teacher limits the circle of research through specific guidelines. The third level is 'scaffolded researching' where autonomous research starts. However, scaffolding is provided by the teacher whenever it is needed by the student. In fact, this stage lies in the middle, between restricted research and autonomous research. The fourth stage is 'open-ended researching' which is still directed by the teacher. The last stage is 'unbounded researching'; it is completely autonomous and self-guided.

4.2. The Students' Questionnaire

In addition to the experiment, the students' questionnaire was administered to the same population. It is a research tool that provides quantitative data to test the second hypothesis that working autonomously may lead to high-quality research.

4.2.1. Aims of the Students' Questionnaire

The aim behind the questionnaire is to gain "reliable and valid (unbiased and accurate) information from respondents" (Ekinci, 2015, p. 3). Quantitative data from the questionnaire's results could help in testing the hypothesis (Hankin, Sutton, & Dunn, 2003, p. 120). Students' beliefs about undergraduates' research quality and the impact of autonomy and integrity on their research are sought. Also, students' choices enabled us to compare the results with the data driven from teachers' interview as well as the plagiarism test.

4.2.2. Population of the Study

The informants who constitute the sample are second-year students in the department of English in the University of 8 Mai 1945, Guelma. The whole population includes one-hundred forty (140) students. Hence, a representative sample must include one-hundred and three (103) participants according to Krejcie and Morgan's sampling table:

Table 4.3

The Size of a Random Sample

N	S	N	S	N	S	N	S	N	S	N	S	N	S
10	10	75	63	180	123	320	175	700	248	1700	313	6000	361
15	14	80	66	190	127	340	181	750	254	1800	317	7000	364
20	19	85	70	200	132	360	186	800	260	1900	320	8000	367
25	24	90	73	210	136	380	191	850	265	2000	322	9000	368
30	28	95	76	220	140	400	196	900	269	2200	327	10000	370
35	32	100	80	230	144	420	201	950	274	2400	331	15000	375
40	36	110	86	240	148	440	205	1000	278	2600	335	20000	377
45	40	120	92	250	152	460	210	1100	285	2800	338	30000	379
50	44	130	97	260	155	480	214	1200	291	3000	341	40000	380
55	48	140	103	270	159	500	217	1300	297	3500	346	50000	381
60	52	150	108	280	162	550	226	1400	302	4000	351	75000	381
65	56	160	113	290	165	600	234	1500	306	4500	354	100000	384
70	59	170	118	300	169	650	242	1600	310	5000	357		

N: the size of the whole population, S: the size of the sample (participants)

Adapted from: Krejcie and Morgan, 1970, as cited in Cohen et al., 2000, p. 94.

Since the whole population is one hundred-forty (140) while the sample is one hundred and three (103) the *confidence level* is 95% while the *margin of error* is five percent (5%). When the margin of error is small, the findings could be generalized to the whole population because they reflect the students' beliefs. This is illustrated in the following table:

Table 4.4

Size of the Sample According to the Confidence Level and the Margin of Error

N	S	Confidence level	Margin of error
140	116	99%	5%
140	103	95%	5%
140	93	90%	5%
140	139	95%	1%

Adapted from: *Sample size calculator*: www.surveymonkey.com/mp/sample-size-calculator/

As indicated in Table 4.4, for a confidence level of 99%, the size of the sample should be one hundred-sixteen (116) when the margin of error is 5 per cent. However, nearly all the participants (139) should be involved in the study when the confidence level is 95% and the margin of error is 1%. A confidence level of 95% indicates that there is 95% confidence; it is defined as “the expected percentage of times that a

confidence interval would contain the population value of the statistic being estimated, under repeated random sampling” (Smithson, 2000, p. 146).

4.2.3. Description of the Students’ Questionnaire

The type of the questionnaire is structured; all the questions (except the last one) have options to ensure the objectivity of the results. The questionnaire includes thirty-eight (38) questions (*see Appendix R*). It is divided into four sections. Section one encompasses three (3) questions; it represents *general information* about the students including the number of years of studying English, motivation for learning English, and their overall English proficiency. Section two includes eight (8) questions; it gathers information about *undergraduate research quality*. The aim of this section is uncovering the students’ perceptions of themselves as researchers as well as the quality of their research. It investigates their attitudes towards the significance of research in higher education. The section also probes the students’ intentions to conduct research whenever they face a problem of non-understanding. Hence, it explores their use of the Internet as a tool for research as well as the issue of research easiness in the Internet Age.

Section three is composed of nine (9) questions; it deals with *autonomous learning* by surveying the students’ views about the most influential approach in teaching English as a Foreign Language: learner-centredness or teacher-centredness since the former encourages autonomy while the latter hinders it. Besides, it aims at examining the students’ degree of self-reliance and independence from the teacher. Also, it investigates the students’ degree of autonomy in learning by tackling autonomous learners’ qualities including self-direction, self-monitoring, self-regulation, self-determination, self-confidence, self-assessment, self-evaluation, self-control, and responsibility for learning.

Moreover, the third section gathers the data about students' types of autonomy (individual or collaborative). It scrutinizes self-guidance as the highest degree of autonomy. Additionally, the section points out students' preferences about autonomy in the classroom versus autonomy out of the classroom. Furthermore, it inspects the factors that could promote autonomy including metacognitive skills, motivation, learning styles, problem-solving skills, self-access and technology-based learning, learner training, teacher autonomy, counselling, and project-based learning. In addition, the section highlights the most effective role played by the teacher.

The last/fourth section is composed of eighteen (18) questions about *the influence of autonomy and integrity on the quality of undergraduate research*. It investigates the prevalence of plagiarism among students and the role of the Internet in increasing plagiarism. Besides, it uncovers whether plagiarism is deliberate or unintentional. Additionally, the section probes students' knowledge and involvement in self-plagiarism as well as assignments/papers' sale from online paper mills (Websites). Then, it investigates the students' commitment of other forms of plagiarism including patch-writing, disguised plagiarism and collusion of students by submitting the same homework.

Moreover, the section surveys the students' opinions about the possible causes behind plagiarism and the use of punishment as a deterrence strategy to end violation of intellectual property as well as the different penalties used by teachers. Also, the section aims at exploring the students' knowledge about the anti-plagiarism code, number 933 which was enacted by the Ministry of Higher Education and Scientific Research in July, 28th, 2016. Students are asked whether detection of plagiarism by teachers is possible and the reasons behind the inability of some teachers to detect it.

The difficulties of paraphrasing and use of citation techniques are investigated. Furthermore, the relationship between autonomy and research quality is tackled. Moreover, the best strategies that could be used by teachers to improve the students' research quality are examined. Finally, question thirty-eight (38) is an open-question that seeks further comments or recommendations about the influence of autonomy and integrity on the students' research quality.

4.2.4. Piloting the Students' Questionnaire

As advised by Cohen et al. (2000, p. 260), the questionnaire should be piloted to check the design of the questions, their ambiguity and time completion. Concerning the number of informants who are needed to pilot a questionnaire, Ekinçi explained that it is either from "five (5) to ten (10) or 10% of the study sample" (2015, p. 127). Hence, to pre-test the students' questionnaire, eleven (11) second-year students were chosen randomly since they constitute 10% of the sample which includes one-hundred and three (103) students.

Findings from the pilot study showed that the questions in section one and two were clear and well-designed; however, many students argued that they did not understand what is meant exactly by the following question "are you an autonomous learner?" Thus, the word "autonomous" was replaced by "self-reliant" which is easier since our aim is to know whether they are independent from the teacher or not. In this respect, self-reliance is an indicator of independence; yet, it does not indicate autonomy (Deci & Flast, as cited in Hamilton, 2013, p. 2). Consequently, the students' responses to question sixteen (16) that is about the degree of the qualities of autonomy would indicate whether they are autonomous or not and to what extent they are autonomous learners.

Although some students in the piloted questionnaire reported that they are not autonomous, they opted for individual/collaborative autonomy in the following question “which type is your autonomy?” To avoid such problems and contradictions, the question was made more general by changing it into “which type of autonomy could be more effective in learning?” Moreover, the enumeration of some questions was deleted since they represent a continuation to the previous questions. Hence, the number of questions was reduced to thirty-eight (38) questions instead of forty-four (44) questions in the first version. Besides, the order of the questions in section three was re-considered to make the questions more coherent.

A rating scale was added to the question about the factors that could promote autonomy where students are asked to indicate their opinion about each option in order to get more precise answers. It was difficult for students to understand what the word “one’s” refers to in the following question “is re-submitting one’s previous work as a new one considered as plagiarism? They think that it means “*other’s* previous work”. So, they did not understand that it is the same person who submits the work twice. Therefore, the word “one’s” was replaced by “student’s”. Necessarily, a question was added to see whether the students committed self-plagiarism or not.

Concerning the students’ responses about the teachers’ punishment of students who plagiarize, the students did not select a decisive answer. Some opted for “not sure”. Therefore, the question was changed to a yes-no question because we wanted to know whether they were *for* or *against* plagiarists’ punishment. Moreover, the students spent from thirty-five (35) to forty (40) minutes answering all the questions.

On the whole, one round of piloting was enough to assess the questionnaire’s items and to uncover its drawbacks. Clarity and coherence as well as time completion were checked. Eventually, necessary revisions were done to meet the intended

objectives of the current study. So, pre-testing the questionnaire with a small-scale sample was really helpful and inspirational, it played a significant role in shaping the new version of the questionnaire.

4.2.5. Administration of the Students' Questionnaire

The questionnaire was administered in the exploratory stage of the experiment. It was completed by second-year students in the beginning of the second semester of the academic year "2017-2018" to know about their attitudes towards autonomous learning and the impact of plagiarism on research quality in the Digital Age.

4.3. The Teachers' Interview

To understand more about the issue of academic dishonesty, autonomous learning, and undergraduates' research quality, a teachers' interview was conducted. Deeper insights could be inferred from the teachers' answers through the use of the interview since "in-depth information from a smaller number of people can be very valuable, especially if the cases are information-rich" (Patton, 1990, p. 184). In this respect, the teachers are a rich source about the students' behaviour vis-à-vis the phenomenon of plagiarism.

4.3.1. Aims of the Teachers' Interview

The teachers' interview was conducted to get information about the teachers' opinions and attitudes about the impact of students' autonomy and integrity on the quality of their research. As claimed by Tuckman, the interview enables the researcher to know "what is inside a person's head" and "to measure what a person thinks (attitudes and beliefs)" (1972, as cited by Cohen et al., 2000, p. 268). Additionally, Kerlinger added that the aim of the interview is to reach 'unexpected results' and 'to validate' other tools (as cited in Cohen et al., 2000, p. 268). In this research, the interview could confirm or disconfirm the questionnaire's results. Getting information

about student's plagiarism and research quality through interviewing teachers could make the results more objective by reducing bias since the teachers and the students' answers would be compared to each other when analysing the findings from both the students' questionnaire and the teachers' interview. Moreover, interviewing is "process-oriented, or open-ended, with categories that emerge" since the researcher moves inductively from large to narrow data (MacKey & Gass, 2005, p. 163).

The teachers' interview was used as a complementary tool to get valid results about plagiarism. The data from it could allow for corroboration by comparing the questionnaires' results with the findings from the teachers' interview and the plagiarism test. The use of two tools or more for gathering data is known as *triangulation* which helps the researcher corroborate the results in order to reach validity. Weir and Robert explained that triangulation is important "because of the need for corroboration of findings by using data from these different sources, collected by different methods and by different people" (1994, p. 137). Thus, corroboration could be implemented either by using two or more research methods/tools or two or more researchers where the aim is validity.

4.3.2. Interview Participants

The interviewees were three teachers of two modules: writing and methodology of second-year students of English in the university of 8 Mai 1945, Guelma. They were chosen purposively since they taught students who participated in the experimental study. As a result, they could know more than teachers of other modules about the students' research quality, academic writing, and paraphrasing. Incidentally, the teachers from different specialties were enrolled in the study since all teachers could teach writing and methodology.

4.3.3. Designing the Teachers' Interview

Following Kvale's planning stages (1996, as cited in Cohen et al., 2000, p. 271), seven steps were followed in this investigation: thematizing, designing, interviewing, transcribing, analysing, verifying, and reporting. *Thematizing* implies specifying the content as well as the type of interview depending on the topic and purpose. *Designing* denotes planning the interview by writing the questions and specifying the wording/written form/structure. *Interviewing* is the process of conducting the interview in a specific setting or through a certain medium. *Transcribing* is a crucial stage that refers to transforming oral speech into a written one. *Analysing* entails making one's own decision about the methods of analysis that could be implemented. *Verifying* is related to checking the reliability and validity of research. Finally, *Reporting* includes making an account about the steps of interviewing and providing a summary of its results in the light of research questions and hypotheses.

Since the interview includes seventeen (17) open-ended questions (*see appendix S*), it is referred to by Patton as 'standardized open-ended interview' (1987, p. 117). This type was chosen because it allows for unexpected answers and encourages interviewees' fruitful comments. In addition, the data analysis is easy since the informants answer the interview's question by responding to the same wording and topic for each question. As a result, the interview's questions are pre-planned which leads to 'comparability of responses' (Patton, 1980, as cited in Cohen et al., 2000, p. 271). Here, analysis depends on comparing the interviewees' answers in relation to a specific question and pattern. The qualitative analysis of the data is implemented through coding and grouping categories into patterns. As explained by Kerlinger, coding is "the translation of question responses and respondent information to specific categories for the purpose of analysis" (1970, as cited in Cohen et al., 2000, p. 283). As

advised by Cohen et al. (2000, p. 283), categories could be introduced in the form of abbreviations.

4.3.4. Piloting the Teachers' Interview

Pilot testing is highly advocated to make an effective design of questions (Creswell, 2007, p. 133). To validate the interview questions and test its clarity, the interview was piloted with one second-year teacher. It lasted for half an hour by using 'an interview protocol' (Creswell, 2007, p. 133) that includes six pages with three questions in each page and space between questions to be filled, except for the last page which includes two questions (since the interview includes seventeen questions).

Following MacKey and Gass' advice "try to make the interviewee as comfortable as possible. This can be done by conducting the interview in a familiar place" (2005, p. 174), the interview took place in the interviewee's office which is the best place due to cosiness and silence. As advised by Walker, the interviewer would better sit side-by-side in order "to be cooperative rather than confrontational" (1985, as cited in Nunan, 1992, p. 152). Hence, sitting side-by-side was really helpful for seeking advice and collaboration from the interviewee.

Note-taking was used as a recording technique instead of tape-recording because the former focuses on 'central issues/facts' whose transcription is not 'time-consuming' (Nunan, 1992, p. 153). The pilot study indicated that some questions were not well-designed since they seek short answers and do not allow for expressing in-depth information and well-thought insights. Thus, these questions were changed slightly to get long answers and explanations. For example instead of asking "are all students autonomous in the classroom?", it would be better to say "what do you think about students' autonomy in the classroom?". Throughout interviewing, it was noticed that

many questions need further clarifications; therefore, some expressions were added to some questions such as: *why?*, *how?*, and *justify*.

4.3.5. Conducting the Teachers' Interview

Unlike the pilot study, e-mail interviewing was used as it “can yield good quality data...greater depth and complexity of material” with “less investment of time” (Gillham, 2005, p. 108). Another important factor is that this type of interview is ‘ready transcribed’ (Gillham, 2005, p. 108). This implies that e-mail interviewing help us get deep and rich data in a short time since teachers’ answers are already transcribed.

Permission was sought before sending the interview. The topic was introduced and explained, this process is called “briefing” which is an important step in interviewing through which the interviewee understands the objective behind the interview (Tuckman, 1972, as cited in Cohen et al., 2000, p. 279). However, only three teachers from five responded to the interview. The interviewees were promised that confidentially would be assured through anonymity when reporting the results. However, due to their different obligations, the teachers took a long time to respond.

Conclusion

Throughout this chapter, a rationale of the study was provided by describing the nature and aim of the methods as well as the tools of the current research. Concerning the research methods, a combination of the quantitative and the qualitative method was followed to yield both structured and unstructured data that could help us confirm or disconfirm the research hypotheses and answer the research questions. Within this scope, the experimental method was conducted to test the research hypotheses. To ensure the reliability of the experiment, a pre-test was administered before the experiment to both the experimental and the control group to ensure the equivalence of the groups. Eventually, a post-test was administered after the experiment to all the

groups to see whether the experiment was effective or not. The generic rubric was used as an assessment technique to score the students' academic research quality. An electronic test was also used to detect plagiarism in the students' homework before and after the experiment.

Concerning the research tools, two tools were used to enable corroboration of results. First, a questionnaire was administered to second-year students to probe their autonomy, integrity, and research quality. Second, an interview was conducted to yield qualitative and word-based rich data from teachers of second-year about students' plagiarism and the relationship between autonomy, academic dishonesty, and research quality. On the whole, both quantitative and qualitative data could be helpful in depicting the issue of academic dishonesty and investigating the ways of deterring it in academic institutions.

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Chapter Five

Data Analysis and Interpretation

“Processing data, analysing results and drafting reports are all extremely demanding activities, both in intellectual effort and time”.

(Cohen et al., 2000, p. 216)

Introduction

The current chapter analyses and interprets the data collected from the different research tools, including the plagiarism test ‘*Plagiarism Checker-X*’ that was administered twice: before and after the experiment. It displays the scores of the pre-test and the post-test after assessing students’ written assignments using the *Generic Rubric* which was chosen because it gives marks for academic writing by taking into consideration plagiarism avoidance and citation among other factors.

The statistical data from the students’ questionnaire was collected, coded, analyzed and interpreted in the light of the research hypotheses and questions. Additionally, qualitative data from the teachers’ interview was highly appreciated since it provided us with deep and rich insights from the teachers who are close to the students and know enough about academic dishonesty. Moreover, quantitative as well as qualitative data helped us answer the research questions and test the research hypotheses through corroboration of the results inferred from the triangulation of different research tools. To check the reliability of the experiment, the t-test and the standard deviation were counted.

5.1. Findings from the Experimental Study

The statistical data from the experimental study aims at testing the first hypothesis that training students to use the research techniques (citation, paraphrasing, quoting, and referencing) as well as sanctioning plagiarists could lead to high research quality.

5.1.1. The Students' Scores in the Pre-test

The pre-test is an assessment of the students' written assignments through the *Generic Rubric* of Professor Amanda French, which was used as a scoring profile for the students' writing since it takes into consideration citation and paraphrasing. Scores substitute Letters in the Generic Rubric as follows: A=5 (outstanding performance), B=4 (very good/above the average), C=3 (good/average), D=2 (satisfactory performance), E=1 (fail). As the Solomon four-group design is implemented in this study, the pre-test was administered only to the experimental and control groups, but not to the two additional groups. The results of the pre-test are indicated in the following table:

Table 5.1

The Students' Scores in the Pre-test

The Experimental group				The Control group			
N	S	N	S	N	S	N	S
1	1	17	1	1	1	17	3
2	1	18	1	2	2	18	3
3	2	19	1	3	1	19	2
4	2	20	2	4	1	20	3
5	1	21	2	5	1	21	1
6	2	22	2	6	3	22	3
7	1	23	1	7	3	23	1
8	1	24	3	8	2	24	2
9	2	25	3	9	2	25	3
10	3	26	2	10	2	26	3
11	1	27	2	11	1	27	2
12	1			12	1	28	1
13	1			13	3	29	3
14	3			14	3	30	1
15	3			15	2	31	2
16	1			16	2		

To compare the results of both groups, the mean of the scores in both groups is counted as well as the difference between the means of each group. The mean is

symbolized by \bar{x} .
$$\bar{x} = \frac{\sum Fx}{N}$$

\sum : the sum; Fx : scores' frequency; N : number of participants

In the experimental group N= 27 while in the control group N= 31. As a result, we have:

$$\bar{x} = \frac{46}{27} = 1.70 \quad \bar{x} = \frac{63}{31} = 2.03$$

The mean of the experimental group is 1.70; however, the mean of the control group is 2.03. As a result, the difference (D) between the means is $D = 2.03 - 1.7 = 0.33$. This indicates similarities between the two groups since they have approximate scores.

5.1.2. The Students' Scores in the Post-test

In the post-test, students were asked to email their written assignments about 'Action research'. Their works were scored following the Generic Rubric too. The results of the four groups are displayed in the following table:

Table 5.2

The Students' Scores in the Post-test

The Exp group				The Control group				Group 3				Group 4			
N	S	N	S	N	S	N	S	N	S	N	S	N	S	N	S
1	4	17	5	1	2	17	1	1	2	17	4	1	1	17	1
2	2	18	2	2	2	18	3	2	5	18	4	2	5	18	1
3	5	19	1	3	1	19	2	3	3	19	3	3	2	19	1
4	2	20	4	4	1	20	1	4	5	20	4	4	2	20	1
5	1	21	2	5	1	21	1	5	3	21	2	5	1	21	1
6	5	22	3	6	1	22	1	6	1	22	1	6	1	22	1
7	1	23	1	7	1	23	1	7	5	23	1	7	1	23	1
8	3	24	5	8	1	24	2	8	1	24	2	8	1	24	2
9	3	25	5	9	2	25	2	9	3	25	1	9	4	25	2
10	5	26	1	10	1	26	4	10	1			10	1	26	1
11	4	27	2	11	1	27	2	11	1			11	1	27	1
12	1			12	1	28	1	1	1			12	2		
13	4			13	1	29	2	13	1			13	1		
14	5			14	2	30	1	14	5			14	1		
15	5			15	2	31	2	15	4			15	1		
16	2			16	1			16	5			16	1		

The mean of the experimental group in the post-test is:

$$\bar{x} = \frac{83}{27} = 3.07$$

The mean of the control group in the post-test is:

$$\bar{x} = \frac{47}{31} = 1.51$$

The difference between the means of the experimental and the control group is symbolized using “D” (Howitt & Cramer, 2000, p. 195).

$D = 3.07 - 1.51 = 1.56$. In this case, the difference between the means was 0.33. Then, it increased to 1.56, which means that there is a significant improvement in the students’ research projects in the experimental group.

The mean of group three in the post-test is:

$$\bar{x} = \frac{68}{25} = 2.72$$

The mean of group four in the post-test is:

$$\bar{x} = \frac{39}{27} = 1.44$$

5.1.3. Counting the Standard Deviation of the Mean

The standard deviation (SD) of the mean measures variation/dispersion, which means the extent to which the scores are close to the mean. Thus, a low standard deviation that is close to zero is better since it is an indicator that the scores are close to the mean. SD is the square root of the variance. SD is counted following this rule:

$$SD = \sqrt{\frac{\sum(xi - x)^2}{N - 1}}$$

The following table represents the SD of the scores of the experimental group in the post-test:

Table 5.3

The Standard Deviation of the Experimental Group Scores in the Post-test

N	S	Mean	Difference from Mean	Squared difference from Mean
1	4	3.07	0.93	0.8649
2	2	3.07	-1.07	1.1449
3	5	3.07	1.93	3.7249
4	2	3.07	-1.07	1.1449
5	1	3.07	-2.07	4.2849
6	5	3.07	1.93	3.7249
7	1	3.07	-2.07	4.2849
8	3	3.07	-0.07	0.0049
9	3	3.07	-0.07	0.0049
10	5	3.07	1.93	3.7249
11	4	3.07	0.93	0.8649
12	1	3.07	-2.07	4.2849
13	4	3.07	0.93	0.8649
14	5	3.07	1.93	3.7249
15	5	3.07	1.93	3.7249
16	2	3.07	-1.07	1.1449
17	5	3.07	1.93	3.7249
18	2	3.07	-1.07	1.1449
19	1	3.07	-2.07	4.2849
20	4	3.07	0.93	0.8649
21	2	3.07	-1.07	1.1449
22	3	3.07	-0.07	0.0049
23	1	3.07	-2.07	4.2849
24	5	3.07	1.93	3.7249
25	5	3.07	1.93	3.7249
26	1	3.07	-2.07	4.2849
27	2	3.07	-1.07	1.1449
Σ : The sum of squared difference				65.8523

$$SD = \sqrt{\frac{65.8523}{27 - 1}} = \sqrt{2.53} = 1.59$$

Since the mean is 3.07 we could say that the SD that equals 1.59 is close to the mean with 1.48 as a difference. As a result, the scores are close to the mean. Similarly, the following table represents the Standard Deviation (SD) of the scores of the control group in the post-test:

Table 5.4

The Standard Deviation of the Control Group Scores in the Post-test

N	S	Mean	Difference from Mean	Squared difference from Mean
1	2	1.51	0.49	0.2401
2	2	1.51	0.49	0.2401
3	1	1.51	-0.51	0.2601
4	1	1.51	-0.51	0.2601
5	1	1.51	-0.51	0.2601
6	1	1.51	-0.51	0.2601
7	1	1.51	-0.51	0.2601
8	1	1.51	-0.51	0.2601
9	2	1.51	0.49	0.2401
10	1	1.51	-0.51	0.2601
11	1	1.51	-0.51	0.2601
12	1	1.51	-0.51	0.2601
13	1	1.51	-0.51	0.2601
14	2	1.51	0.49	0.2401
15	2	1.51	0.49	0.2401
16	1	1.51	-0.51	0.2601
17	1	1.51	-0.51	0.2601
18	3	1.51	1.49	2.2201
19	2	1.51	0.49	0.2401
20	1	1.51	-0.51	0.2601
21	3	1.51	1.49	2.2201
22	2	1.51	0.49	0.2401
23	1	1.51	-0.51	0.2601
24	1	1.51	-0.51	0.2601
25	1	1.51	-0.51	0.2601
26	1	1.51	-0.51	0.2601
27	2	1.51	0.49	0.2401
28	2	1.51	0.49	0.2401
29	4	1.51	3.49	12.1801
30	2	1.51	0.49	0.2401
31	1	1.51	-0.51	0.2601
Σ : The sum of squared difference				23.7031

$$SD = \sqrt{\frac{\sum(xi - x)^2}{N - 1}}$$

$$SD = \sqrt{\frac{23.7031}{31 - 1}} = \sqrt{0.79} = 0.88$$

As the mean is 1.51 and the SD is 0.88, the scores are close to the mean because $1.51 - 0.88 = 0.63$. Concerning the Standard Deviation (SD) of the control group three (which received the experiment), it is counted in the following table:

Table 5.5

The Standard Deviation of the Scores of Group Three in the Post-test

N	S	Mean	Difference from Mean	Squared difference from Mean
1	2	2.72	-0.72	0.5184
2	5	2.72	2.28	5.1984
3	3	2.72	0.28	0.0784
4	5	2.72	2.28	5.1984
5	3	2.72	0.28	0.0784
6	1	2.72	-1.72	2.9584
7	5	2.72	2.28	5.1984
8	1	2.72	-1.72	2.9584
9	3	2.72	0.28	0.0784
10	1	2.72	-1.72	2.9584
11	1	2.72	-1.72	2.9584
12	1	2.72	-1.72	2.9584
13	1	2.72	-1.72	2.9584
14	5	2.72	2.28	5.1984
15	4	2.72	1.28	1.6384
16	5	2.72	2.28	5.1984
17	4	2.72	1.28	1.6384
18	4	2.72	1.28	1.6384
19	3	2.72	0.28	0.0784
20	4	2.72	1.28	1.6384
21	2	2.72	-0.72	0.5184
22	1	2.72	-1.72	2.9584
23	1	2.72	-1.72	2.9584
24	2	2.72	-0.72	0.5184
25	1	2.72	-1.72	2.9584
Σ : The sum of squared difference				61.04

$$SD = \sqrt{\frac{\sum(xi - x)^2}{N - 1}}$$

$$SD = \sqrt{\frac{61.04}{25 - 1}} = \sqrt{2.54} = 1.59$$

As the mean is 2.72 and the SD is 1.59, most of the scores are close to the mean because $2.72 - 1.59 = 1.13$. Concerning the Standard Deviation (SD) of the control group four, it is counted in the following table:

Table 5.6

The Standard Deviation of the Scores of Group Four in the Post-test

N	S	Mean	Difference from Mean	Squared difference from Mean
1	1	1.41	-0.41	0.1681
2	5	1.41	3.59	12.8881
3	2	1.41	0.59	0.3481
4	2	1.41	0.59	0.3481
5	1	1.41	-0.41	0.1681
6	1	1.41	-0.41	0.1681
7	1	1.41	-0.41	0.1681
8	1	1.41	-0.41	0.1681
9	4	1.41	2.59	6.7081
10	1	1.41	-0.41	0.1681
11	1	1.41	-0.41	0.1681
12	2	1.41	0.59	0.3481
13	1	1.41	-0.41	0.1681
14	1	1.41	-0.41	0.1681
15	1	1.41	-0.41	0.1681
16	1	1.41	-0.41	0.1681
17	1	1.41	-0.41	0.1681
18	1	1.41	-0.41	0.1681
19	1	1.41	-0.41	0.1681
20	1	1.41	-0.41	0.1681
21	1	1.41	-0.41	0.1681
22	1	1.41	-0.41	0.1681
23	1	1.41	-0.41	0.1681
24	2	1.41	0.59	0.3481
25	2	1.41	0.59	0.3481
26	1	1.41	-0.41	0.1681
27	1	1.41	-0.41	0.1681
Σ : The sum of squared difference				24.6987

$$SD = \sqrt{\frac{\sum(xi - x)^2}{N - 1}}$$

$$SD = \sqrt{\frac{24.6987}{27 - 1}} = \sqrt{0.94} = 0.96$$

As the mean is 1.41 and the SD is 0.96, the scores are close to the mean because $1.41 - 0.96 = 0.45$. As indicated by the statistics, there is no dispersion in the scores of the post-tests since the scores are close to the mean of each group.

5.1.4. Counting the T-Test

To test the hypothesis, the mean of the experimental group in the post-test should be compared to that of the control group in the post-test through the *Unrelated T-Test*. The formula for counting the t value is:

$$t = \frac{\mu_x - \mu_y}{\sqrt{\frac{(\sum x^2 - \frac{(\sum x)^2}{n_x}) + (\sum y^2 - \frac{(\sum y)^2}{n_y})}{n_x + n_y - 2} \times \left[\frac{1}{n_x} + \frac{1}{n_y} \right]}}$$

μ_x : mean of the experimental group; μ_y : mean of the control group

$(\sum x)^2$: sum of x squared; $(\sum y)^2$: sum of y squared

$\sum x^2$: sum of the squares of x; $\sum y^2$: sum of the squares of y

n_x : number of scores in the experimental group; n_y : number of scores in the control group (Howitt & Cramer, 2000, p. 195).

Table 5.7

Counting the Unrelated T-Test (Group One and Two)

n	x	y	x ²	y ²		n	x	y	x ²	y ²
1	4	2	16	4		17	5	1	25	1
2	2	2	4	4		18	2	3	4	9
3	5	1	25	1		19	1	2	1	4
4	2	1	4	1		20	4	1	16	1
5	1	1	1	1		21	2	3	4	9
6	5	1	25	1		22	3	2	9	4
7	1	1	1	1		23	1	1	1	1
8	3	1	9	1		24	5	1	25	1
9	3	2	9	4		25	5	1	25	1
10	5	1	25	1		26	1	1	1	1
11	4	1	16	1		27	2	2	4	4
12	1	1	1	1		28		2		4
13	4	1	16	1		29		4		16
14	5	2	25	4		30		2		4
15	5	2	25	4		31		1		1
16	2	1	4	1		Σ	83	47	321	92

The sum of the squares of x is 321 whereas the sum of the squares of y is 92. In addition, the sum of x squared is 6.889 ($\sum x^2 = 6.889$) while the sum of y squared is 2.209 ($\sum y^2 = 2.209$). Also, the Mean of the experimental group is 3.07 whereas the

Mean of the control group is 1.51. By inserting the numbers in the formula we would have:

$$t = \frac{3.07 - 1.51}{\sqrt{\frac{\left(\frac{321 - 6.889}{27}\right) + \left(\frac{92 - 2.209}{31}\right)}{27 + 31 - 2} \times \left[\frac{1}{27} + \frac{1}{31}\right]}}$$

$$t = \frac{1.56}{\sqrt{\frac{(321 - 0.25) + (92 - 0.07)}{56} \times 0.06}}$$

$$t = \frac{1.56}{\sqrt{\frac{320.75 + 91.93}{56} \times [0.06]}} = \frac{1.56}{\sqrt{\frac{412.68}{56} \times [0.06]}} = \frac{1.56}{\sqrt{7.36 \times [0.06]}} = \frac{1.56}{\sqrt{0.44}} = \frac{1.56}{0.44}$$

$$t = 3.54$$

As indicated in the formula of t, 0.06 which is the result of $\frac{1}{n_x} + \frac{1}{n_y}$ is symbolized by w. The latter is “a weighting factor making adjustments more precise when you have unequal sample sizes” (Howitt & Cramer, 2000, p. 197). The degrees of freedom is $F = (n_x + n_y) - 2$ (Howitt & Cramer, 2000, p. 196). $F = (27 + 31) - 2 = 56$. The alpha level is $\alpha = 0.05$. According to the t-table, 56 degrees of freedom at alpha level 0.05 have a critical value of 1.673. As explained by Howitt and Cramer, “the bigger the value of t the greater is the difference between our sample means” (2000, p. 198). Since the value of “t” is higher than the critical value ($3.54 > 1.673$) we reject the first null hypothesis which supposed that: If students were trained to use research techniques and were sanctioned for plagiarism, they would not avoid plagiarism. Thus, their research

quality would not be good". To confirm the results, the unrelated t-test of group three and four should also be counted as follows:

Table 5.8

Counting the Unrelated T-Test (Group Three and Four)

n	X	y	x ²	y ²		n	X	y	x ²	y ²
1	2	1	4	1		15	4	1	16	1
2	5	5	25	25		16	5	1	25	1
3	3	2	9	4		17	4	1	16	1
4	5	2	25	4		18	4	1	16	1
5	3	1	9	1		19	3	1	9	1
6	1	1	1	1		20	4	1	16	1
7	5	1	25	1		21	2	1	4	1
8	1	1	1	1		22	1	1	1	1
9	3	4	9	16		23	1	1	1	1
10	1	1	1	1		24	2	2	4	4
11	1	1	1	1		25	1	2	1	4
12	1	2	1	4		26		1		1
13	1	1	1	1		27		1		1
14	5	1	25	1		Σ	68	39	246	81

The formula for counting t is:

$$t = \frac{\mu X - \mu Y}{\sqrt{\frac{(\sum x^2 - \frac{(\sum x)^2}{nx}) + (\sum y^2 - \frac{(\sum y)^2}{ny})}{nx + ny - 2} \times \left[\frac{1}{nx} + \frac{1}{ny} \right]}}$$

The sum of the squares of x is 46; however, the sum of the squares of y is 81.

The sum of x squared is 4.624 ($\sum x^2 = 4.624$) while the sum of y squared is 1.521 ($\sum y^2 = 1.521$). The mean of group three is 2.72, and the mean of group four is 1.44.

By inserting the numbers in the formula we would get:

$$t = \frac{2.72 - 1.44}{\sqrt{\frac{(246 - \frac{4.624}{25}) + (81 - \frac{1.521}{27})}{25 + 27 - 2} \times \left[\frac{1}{25} + \frac{1}{27} \right]}}$$

$$t = \frac{1.28}{\sqrt{\frac{(246-0.18)+(81-0.05)}{50} \times 0.07}}$$

$$t = \frac{1.28}{\sqrt{\frac{245.82+80.95}{50} \times [0.07]}} = \frac{1.28}{\sqrt{\frac{326.77}{50} \times [0.07]}} = \frac{1.28}{\sqrt{6.53 \times [0.07]}} = \frac{1.28}{\sqrt{0.45}} = \frac{1.28}{0.67}$$

$$t = 1.91$$

The degrees of freedom is F; $F = (n_x + n_y) - 2$ (Howitt & Cramer, 2000, p. 196).

$F = (25+27) - 2 = 50$. The alpha level is $\alpha = 0.05$. According to the t-table, 50 degrees of freedom at alpha level 0.05 have a critical value of 1.676. Since $1.91 > 1.676$ the results are statistically significant and the first null hypothesis is rejected.

5.2. Findings from the Plagiarism Test

Plagiarism Checker-X which is a well-known free plagiarism test was administered before the experiment to check plagiarism in students' written assignments in both the experimental and control groups. The results were as follows:

Table 5.9

Number of Plagiarists according to the Plagiarism Test before the Experiment

	The experimental group		The control group	
	Frequency	Percentage	Frequency	Percentage
Number of plagiarists	27	100%	31	100%
Number of non-plagiarists	0	0%	0	0%
<i>Total</i>	27	100%	31	100%

It is observed that in both groups, all the students (100%) committed plagiarism in their written assignments. This implies that there is a high tendency to plagiarize among undergraduate students. As a result, all the students lack academic integrity in their researches especially when the topic is easy to plagiarize because of the availability of multiple electronic sources.

Table 5.10

Percentage of Plagiarism according to the Plagiarism Test before the Experiment

	<i>The experimental group</i>		<i>The control group</i>	
	<i>Frequency</i>	<i>Percentage</i>	<i>Frequency</i>	<i>Percentage</i>
[80% - 100%]	4	14.81%	7	22.58%
[60% - 80%[	12	44.44%	2	6.45%
[40% - 60%[	6	22.22%	11	35.48%
[20% - 40%[	2	7.40%	7	22.58%
[0% - 20%[	3	11.11%	4	12.90%
<i>Total</i>	27	100%	31	100%

As Table 5.10 shows, 14.81% of the participants in the experimental group showed a very high intention to plagiarize others' works (from 80% to 100%). More students in the control group (22.58%) fell in the same range. Besides, a high susceptibility to plagiarism (from 60% to 80%) was observed among 44.44% of students in the experimental group and only 6.45% in the control group. Also, a moderate inclination to plagiarism (from 40% to 60%) was prevalent amid 22.22% of students in the experimental group and 35.48% in the control one. This denotes that the phenomenon of plagiarism is highly dominant. Furthermore, a low propensity to plagiarism (from 20% to 40%) was existent amongst 7.40% of the students in the experimental group and 22.58% of the students in the control one; this reflects students' inclination towards academic dishonesty. This is potentially due to the easiness of plagiarism in the Internet age and the availability of information in digital sources. Very low percentages of students (11.11% in the experimental group and 12.90% in the control group) avoided plagiarism to a certain extent (from 0% to 20%).

More interestingly, the students were not aware of the importance of citation techniques. It was observed in their assignments that even though two students used two quotations and citations including the author-date-page style (APA), the references were written within the paragraph rather than at the end (by including the title "References"). This implies that the sources were plagiarized by copying and pasting them as they are in the Websites. Also, the two citations were similar to each other,

which confirms students' collusion (cooperation). This was confirmed by the Plagiarism Checker X which states the website by clicking on the reference. Eventually, the following Websites are the most common ones used by students as indicated by the Plagiarism Checker X in the plagiarism report:

www.wikipedia.com; www.academia.com; www.verywellmind.com;

www.quizlet.com; www.scribd.com; www.researchgate.net; www.explorable.com;

www.coursehero.com; www.studymode.com

The same plagiarism test was administered again after the experiment by scanning the students' homework to check for plagiarism. The aim was to see whether plagiarism was avoided by the experimental group or not. To reach this aim, the students' works were scanned in the four groups using the same tool, namely plagiarism checker X. The results are displayed as follows:

Table 5.11

Number of Plagiarists according to the Plagiarism Test after the Experiment

	The experimental group		The control group		Group three		Group four	
	F	P	F	P	F	P	F	P
Number of plagiarists	12	44.44%	29	93.54%	12	48%	25	92.59%
Number of non-plagiarists	15	55.55%	2	6.45%	13	52%	2	7.40%
<i>Total</i>	<i>27</i>	<i>100%</i>	<i>31</i>	<i>100%</i>	<i>25</i>	<i>100%</i>	<i>27</i>	<i>100%</i>

From Table 5.11, it is observed that contrary to the results of the plagiarism test before the experiment which indicated that all students plagiarized, more than half the students in the experimental group (55.55%) and 52% in group three (who received the treatment) did not plagiarize others' works. This implies that the training was beneficial for many students. Besides, a student in the control group wrote in the homework the URL/web link between brackets instead of the author-date-page although in the list of references there was the author's name. The following is his/her statement:

...it is called school-wide action research. In addition to the district-wide research. It is used for entire school district. This type of action research is usually more community-based than the other types. This type may also be used to address organization problems within the entire district (Bizfluent.com)

VanBaren, J. What are the types of action research design? Bizfluent,

<https://bizfluent.com/list-7608678-types-action-research-design.html>.

It was observed that the students of the experimental group were better than the students of the control group in academic writing and in preserving academic integrity. This is an example of a student's writing in the experimental group where in-text citation and paraphrasing are used perfectly:

Ferrance also mentioned that any action research move through five steps the first is identifying problems, then gathering data, after that interpretation of the data; then taking action based on data (2000, p. 9).

Table 5.12

Percentage of Plagiarism according to the Plagiarism Test after the Experiment

	<i>The experimental group</i>		<i>The control group</i>		<i>Group three</i>		<i>Group 4</i>	
	<i>F</i>	<i>P</i>	<i>F</i>	<i>P</i>	<i>F</i>	<i>P</i>	<i>F</i>	<i>P</i>
[0% - 50%[	5	33.33%	2	6.89%	0	%0	6	24%
[50% - 100%]	10	66.66%	27	93.10%	12	100%	19	76%
<i>Total</i>	15	100%	29	100%	12	100%	25	100%

As it is displayed in Table 5.12, the percentage of plagiarism is high in all groups. In the experimental group, the plagiarism percentage of 66.66% of students ranged from 50% to 100% while that of 33.33% of students ranged from 0% to 50%. In the control group, the percentage of students whose plagiarism ranged from 50% to 100% is 93.10% whereas that of students whose plagiarism ranged from 0% to 50% is 6.89%. In group three, that received the experiment, plagiarism ranged from 50% to

100% for all the students. However, in group four that did not receive the treatment, plagiarism ranged from 50% to 100% for 76% of the students, and from 0% to 50% for 24% of the students. Similar to the results of the plagiarism test before the experiment, plagiarism is high in all the groups although group one and three received training about plagiarism avoidance and how to apply citation and paraphrasing techniques. This means that some students did not cease to plagiarize others' words although they were trained to use citation and paraphrasing.

5.3. The Students' Questionnaire

Quantitative data was collected from the students' questionnaire to test the second hypothesis that good research quality is related to the level of autonomy.

5.3.1. Analysis of the Results from the Students' Questionnaire

The quantitative data from the students' questionnaire helped us test our hypothesis that autonomous learning could lead to good research quality. Simultaneously, it provided substantial data about research quality, integrity, and autonomous learning, which are necessary for the exploratory phase of the experiment. The following section includes tables of the frequency and the percentages of the students' responses to the questionnaire as well as the analysis and interpretation of the data for each table.

Section One: General Information

Question 1: How long have you been studying English?

- a- prior to university
- b- at university

Table 5.13

Number of the Years of Formal English Instruction

<i>Options</i>		<i>Frequency</i>	<i>Percentage</i>
a-Prior to university	5 years	1	0.97%
	7 years	80	77.66%
	8 years	17	16.50%
	9 years	5	4.85%
<i>Total</i>		103	100%
b-At university	2 years	94	91.26%
	3 years	8	7.76%
	4 years	1	0.97%
<i>Total</i>		103	100%

It is necessary to know how long students had been studying English since the length of exposure has a relation with their proficiency. From the results displayed in Table 5.13, the majority of the students (77.66%) studied English for seven years before the university. Additionally, 16.50% of the informants studied English for eight years while 4.85% did it for nine years. This is due to the fact that some students failed to succeed in one or two years of study. Only one student admitted that s/he studied English for five years before the university, which is the case of the classical system of education in which pupils study two years in the Middle school and three years in the secondary school. At university, the majority of the respondents (91.26 %) studied two years including first and second year; however, 7.76% of the students studied three years and 0.97% (which equals one student) studied four years. This is due to failure to succeed in one year or more.

Question 2: Are you motivated to study English?

a-yes

b-no

Table 5.14

The Students' Motivation to Study English

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Yes	92	89.32%
b-No	11	10.67%
<i>Total</i>	103	100%

As Table 5.14 indicates, the majority of the participants (89.32%) declared that they were motivated to study English. Motivation is highly advocated in order to increase students' autonomy (Brown, 2001, p. 79). Meanwhile, 10.67% of them admitted that they were not motivated to study English. Thus, lack of motivation can affect students' autonomy and integrity negatively.

Question 3: How is your English proficiency?

a-good b-average c-bad

Table 5.15

The Students' Perceptions of their English Proficiency

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Good	33	32.03%
b-Average	66	64.07%
c-Bad	4	3.88%
<i>Total</i>	<i>103</i>	<i>100%</i>

English proficiency is needed for good academic writing because students who are proficient in English could use their own words and avoid plagiarism. The findings in Table 5.15 indicate that more than two-thirds of the informants (64.07%) perceived their English proficiency level as average. Nearly a third of the population (32.03%) considered their level as good while only 3.88% of students admitted that their level is poor. This implies that the level of the majority of the students is good or average.

Section Two: Undergraduate Research

Question 4: Do you think that when you do homework you are a researcher?

a-yes b-no

Table 5.16

The Student as a Researcher

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Yes	69	66.99%
b-No	34	33 %
<i>Total</i>	<i>103</i>	<i>100%</i>

It is not only teachers who consider themselves as researchers, students also do. We wanted to know whether students considered themselves as researchers or not. As it is shown in Table 5.16, the majority of the students (66.99%) agreed that they were researchers. This implies that they were aware that doing assignments is conducting research. So, it is important to develop their research skills. However, 33% of the students were did not consider themselves researchers. This reflects their belief that only teachers may be researchers. Consequently, teachers should inculcate them that they are also researchers who continuously search for information needed for their oral or written assignments.

Question 5: How is the quality of your research (written assignments)?

a-good b-average c-bad

Table 5.17

The Students' Perceptions of their Research Quality

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Good	15	14.56%
b-Average	73	70.87%
c-Bad	15	14.56%
<i>Total</i>	<i>103</i>	<i>100%</i>

The students' perception of their research quality is important since it is an indicator of their ability to perform tasks and do written assignments convincingly. As it is displayed in Table 5.17, most of the participants (70.87%) perceived the quality of their research as average. Perhaps they opted for 'average' because they know that many features of good research were missing in their written assignments, including academic integrity, correct grammar, sufficient vocabulary...etc. Unexpectedly, 14.56% of the informants admitted that the quality of their research is good; they were probably high achievers who always get good marks for assignments. Hence, they thought that they had good research skills. The same percentage (14.56%) declared that their

research quality was bad. This could be the option of low-achievers who knew that their writing style was poor.

Question 6: How important do you consider students' research at university?

a-Not important b-important c-extremely important.

Table 5.18

The Importance of Students' Research at the University

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Not important	4	3.88%
b-Important	68	66.01%
c-Extremely important	31	30.09%
<i>Total</i>	<i>103</i>	<i>100%</i>

The students' views about the importance of research at university is a decisive factor that could reveal causes of their interest or disinterest in doing homework. The data in Table 5.18 revealed that nearly two-thirds of the informants (66.01%) proclaimed that students' research is important in higher education. This reflects their awareness of the significance of conducting research. In the same line, 30.09% of students further estimated the extreme importance of research since there is no learning without research as both learning and research are problem-based. Surprisingly, very few students (3.88%) denied the importance of research.

Question 7: What do you usually do when you do not understand a lesson or a part of it although the teacher has explained it repeatedly?

a-I rely on myself by checking both printed and digital materials

b-I ask for explanation from my peers

c-I do not bother myself

Table 5.19

Students' Solutions to Lack of Understanding

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-I rely on myself by checking both printed and digital materials	52	50.48%
b-I ask for explanation from my peers	45	43.68%
c-I do not bother myself	12	11.65%

The aim behind this question is to investigate the students' self-reliance in conducting research. We wanted to know whether students have a tendency to search for information when they face a problem in understanding by relying on themselves or not. As it is observed in Table 5.19, there is no total number in the table since six students opted for more than one option (two options). More than half of the respondents (50.48%) claimed that whenever they do not understand something, they rely on themselves by checking both printed and digital materials. This implies that the students are used to conduct problem-based research. Conversely, about half of the students (43.68%) do not surf the Net or read printed sources to look for the needed information. They rather rely on their peers' explanation. On the one hand, collaboration with peers is highly advocated to raise students' consciousness unless students are highly dependent by receiving information passively (without discussion). On the other hand, the students who do not check other sources are considered lazy and/or unable to conduct research. More importantly, six students opted for both the first two choices; this stresses the fact that they are highly competent and active by comparing the information obtained from peers with the data driven from research in printed and digital sources. Unfortunately, 11.65% of the students are careless; they admitted that they did not bother themselves when they did not understand the content of the lesson. This may be due to laziness or lack of devotion and motivation.

Question 8: How often do you browse the Net to know more about the lessons?

a-Always b-Sometimes c-Rarely d-Never

Table 5.20

Frequency of Browsing the Net to Get Extra Information

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Always	30	29.12%
b-Sometimes	64	62.13%
c-Rarely	6	5.82%
d-Never	3	2.91%
<i>Total</i>	<i>103</i>	<i>100%</i>

The students who browse the Net to know more about the lessons show more curiosity and interest in conducting research than those who do not. Hence, the aim of this question is exploring the students' interest in research and extra information. The data displayed in Table 5.20 show that less than two-thirds of the population (62.13%) *sometimes* browse the Net to search for additional information. Interestingly, 29.12 % of the informants revealed that they *always* surf the net looking for extra information. In contrast, 5.82% declared that they *rarely* search for additional information about the lesson while 2.91% *never* searched for extra information related to the content of the lesson. This shows that not all students are eager to conduct research and look for new information when they face problems in learning. Instead, they consider the teachers' information as enough. Maybe, they lack curiosity and motivation.

Question 9: Do you think that access to the Internet has facilitated research?

a-yes b-no

Table 5.21

Easiness of Research through the Internet

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Yes	103	100%
b-No	0	0%
<i>Total</i>	<i>103</i>	<i>100%</i>

The aim of this question is to know whether students benefit from the wide number of Web sites in facilitating the process of conducting research. All the students (100%) concurred that access to the Internet had made research easier. This shows the massive impact of the Internet on facilitating the task for the students. Doing assignments through the Internet saves one's time and energy. Nonetheless, the students should be aware of the necessary techniques and skills that could help them cope with the difficulties that may be faced during the process of online research.

Question 10: Do you think that studying research methodology is influential in improving your research skills?

a-yes b-no

Table 5.22

Improving the Students' Research Skills through Teaching Research Methodology

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Yes	97	94.17%
b-No	6	5.82%
<i>Total</i>	<i>103</i>	<i>100%</i>

This question aims at investigating the students' awareness of the importance of studying research methodology in improving their research skills. The majority of the students (94.17%) asserted that studying research methodology could improve their research skills. Unexpectedly, 5.82% of students disagreed about the fact that methodology is helpful in developing their research skills. Thus, some students are not aware of the importance of learning scientific research techniques or their research skills did not improve although they studied it. This may be due to either internal factors like competence, intelligence, motivation, and proficiency...or external factors such as teachers' method, contextual factors, and lack of practice.

Question 11: When is the quality of your research better?

a-when you work individually b-when you work in groups

Table 5.23

The students' Preferences for Individual or Group Work regarding Research Quality

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-When you work individually	50	48.54%
b-When you work in groups	53	51.45%
<i>Total</i>	<i>103</i>	<i>100%</i>

Students' preferences vary according to many factors such as learning styles...Some students prefer individual work while others are in favour of group work. Thus, the aim of this question is to inquire about the students' preferences in research.

As it is shown in Table 5.23, the students have different attitudes towards cooperative learning. More than half of the students (51.45%) preferred group work as a strategic technique to improve their research quality; whereas, nearly half of the students (48.54%) argued that individual work is better than group work in improving their research quality. As a result, the second group of the students neglects the importance of collaborative learning.

Section Three: Autonomous Learning

Question 12: Which approach is more effective in Teaching English as a Foreign Language (TEFL)?

a-the learner-centred approach

b-the teacher-centred approach

Table 5.24

The Most Effective Approach in TEFL

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-The learner-centred approach	60	58.25%
b-The teacher-centred approach	43	41.74%
<i>Total</i>	<i>103</i>	<i>100%</i>

The goal behind this question is to know about the students' awareness of the learner-centred approach as the best approach that encourages autonomy. More than half of the respondents (58.25%) opted for the use of the learner-centred approach that encourages students' autonomy and independence. This implies that they had to be able to rely on themselves when learning English in an environment where detachment from the teacher was necessary; however, 41.74% of them chose the teacher-centred approach. Perhaps, they were less autonomous and they needed to rely on the teacher.

Question 13: Are you a self-reliant learner?

a-yes

b-no

Table 5.25

Students' Self-reliance

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Yes	84	81.55%
b-No	19	18.44%
<i>Total</i>	<i>103</i>	<i>100%</i>

In this question, we wanted to know whether the students were autonomous or not. We avoided asking them directly by using the word 'autonomous' which is more complex and ambiguous for some students (as indicated in the pilot study). Therefore, we used the word 'self-reliance' which is a major part of autonomy. As indicated in the previous table, the majority of the informants (81.55%) declared that they were self-reliant. This implies that they did not rely on the teacher. Hence, they could be considered as autonomous learners; while, 18.44% of the students admitted that they were not self-reliant. This entails that they could not be autonomous in learning since autonomy is highly dependable on self-reliance.

-If yes, to what extent are you self-reliant?

a- To a great extent

b- To a limited extent

c- To a very limited extent

Table 5.26

Degree of Students' Self-reliance

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-To a great extent	25	29.76%
b-To a limited extent	55	65.47%
c-To a very limited extent	4	4.76%
<i>Total</i>	<i>84</i>	<i>100%</i>

The aim of this question is to know to what extent students are self-reliant; almost two-thirds of the students (65.47%) declared that their self-reliance was limited. Moreover, 29.76% of the informants stated that they were self-reliant to a great extent. Eventually, 4.76% of students confirmed that they were self-reliant to a very limited extent. Consequently, even though the majority of students (81.55%) revealed that they were self-reliant, their self-reliance was limited or very limited. This implies that they

could not find solutions in all the learning contexts and they need the teachers' help not only as a facilitator.

Question 14: To what extent do you possess the following qualities? self-direction, self-monitoring, self-regulation, self-determination, self-confidence, self-assessment, self-evaluation, self-control, responsibility for learning.

a-very high b-high c-average d-low e-very low

In this question, the most important characteristics of autonomous learners (9 characteristics) were investigated to assess students' autonomy. Each characteristic is dealt with in a separate table as follows:

Table 5.27

Students' Self-direction

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Very high	12	11.65%
b-High	40	38.83%
c-Average	44	42.71%
d-Low	5	4.85%
e-Very low	2	1.94%
<i>Total</i>	<i>103</i>	<i>100%</i>

As it is displayed in Table 5.27, nearly half of the students (42.71%) admitted that their self-direction was average. Besides, 38.83% of them considered their self-direction as high. In addition, 11.65% of students viewed their self-direction as very high; however, 4.85% and 1.94% of students respectively reported that their self-direction was low and very low. Unexpectedly, the majority of students (93.19%) declared that they had an average, high, or very high self-direction which is nearly equivalent to being autonomous to a considerable extent.

Table 5.28

Students' Self-monitoring

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Very high	10	9.70%
b-High	32	31.06%
c-Average	48	46.60%
d-Low	13	12.62%
e-Very low	0	0%
<i>Total</i>	<i>103</i>	<i>100%</i>

For self-monitoring, nearly half of the population (46.60%) concurred that they had an average self-monitoring. Some students (31.06%) considered their self-monitoring as high while 9.70% of them viewed it as very high. Conversely, 12.62% of the students argued that their self-monitoring was low. Eventually, none of the students (0%) confessed that their monitoring was very low. Overall, the majority of the students (87.36%) declared that their self-monitoring ranges from an average to a very high degree. So, the students were able to monitor their own learning by directing and controlling themselves.

Table 5.29

Students' Self-regulation

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Very high	9	8.73%
b-High	33	32.03%
c-Average	53	51.45%
d-Low	8	7.76%
e-Very low	0	0%
<i>Total</i>	<i>103</i>	<i>100%</i>

Concerning self-regulation, findings in Table 5.29 indicate that more than half of the students (51.45%) had an average self-regulation. While, less than one-third of the population (32.03%) had a high self-regulation. In addition, 8.73% of the students revealed that their self-regulation was very high. In contrast, very few students (7.76%) proclaimed that their self-regulation was low. None reported that his/her self-regulation was very low. In sum, the majority of students (92.21%) had an average, high or very

high self-regulation, which implies that they are able to organize, plan for their learning on the one hand, and execute the plans of their learning, on the other hand.

Table 5.30

Students' Self-determination

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Very high	21	20.38%
b-High	28	27.18%
c-Average	44	42.71%
d-Low	7	6.79%
e-Very low	3	2.91%
<i>Total</i>	<i>103</i>	<i>100%</i>

Less than half of the students (42.71%) uncovered that their self-determination was average; whereas, 27.18% and 20.38% of the students respectively confessed that their self-determination was high and very high. Conversely, 6.79% and 2.91% of the students respectively admitted that their self-determination was low and very low. Consequently, most of the students (90.27%) possessed a considerable amount of self-determination as a significant characteristic in learner autonomy. This indicates that they have self-decision, firmness and persistence.

Table 5.31

Students' Self-confidence

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Very high	36	34.95%
b-High	36	34.95%
c-Average	22	21.35%
d-Low	8	7.76%
e-Very low	1	0.97%
<i>Total</i>	<i>103</i>	<i>100%</i>

As Table 5.31 points out, more than a third of the informants (34.95%) admitted that their self-confidence was high or very high respectively. Besides, 21.35% of students declared that it was average. In contrast, very few students (7.76%) admitted that their self-confidence was low. Eventually, 0.97% (one student) declared that his/her self-confidence was very low. As a result, most of the students (91.25%) have self-

confidence that ranges from average to very high which implies that they could be autonomous.

Table 5.32

Students' Self-assessment

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Very high	13	12.62%
b-High	37	35.92%
c-Average	46	44.66%
d-Low	6	5.82%
e-Very low	1	0.97%
<i>Total</i>	<i>103</i>	<i>100%</i>

As Table 5.32 indicates, 44.66% of the informants pronounced that their degree of self-assessment was average. Additionally, 35.92% and 12.62% of students respectively stated that their self-assessment was high and very high. In contrast, very few students (5.82%) admitted that the extent of their self-assessment was low. Only 0.97% of students, which equals one student, reported that his/her tendency to make self-assessment was very low. This implies that self-assessment of the majority of the informants (93.2%) ranges from average to very high, which entails that they are autonomous because the former lies in the heart of the latter. Few students neglected the importance of self-assessment or faced difficulties when trying to make it. Hence, the role of the teacher is to inform them about the different checklist and rubrics that could help them assess themselves.

Table 5.33

Students' Self-evaluation

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Very high	12	11.65%
b-High	41	39.80%
c-Average	40	38.83%
d-Low	10	9.70%
e-Very low	0	0%
<i>Total</i>	<i>103</i>	<i>100%</i>

As displayed in Table 5.33, 39.80% of the respondents revealed that they had self-evaluation to a high extent. Besides, 38.83% of students considered their self-

evaluation as average. Also, 11.65% of the students admitted that their self-evaluation was very high; however, very few students (9.70%) did not view themselves as effective self-evaluators. Therefore, they opted for low. None of them depicted his/her self-evaluation as very low. As a consequence, the majority of the students (90.28%) were self-evaluators, with a self-evaluation that ranges from average to very high. They could evaluate and judge their level and decide about the shortcomings that should be overcome.

Table 5.34

Students' Self-control

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Very high	22	21.35%
b-High	32	31.06%
c-Average	33	32.03%
d-Low	13	12.62%
e-Very low	3	2.91%
<i>Total</i>	<i>103</i>	<i>100%</i>

Findings in Table 5.34 show that 32.03% and 31.06% of the students declared respectively that their self-control was average and high. 21.35% of them argued that it was very high. Conversely, few students (12.62%) confessed that their self-control was low. Eventually, a very limited number of the students (2.91%) announced that their self-control was very low. As a result, most of the students (84.44%) had self-control that ranges from average to very high. This indicates that they were autonomous and able to control the progress of their own learning.

Table 5.35

Students' Responsibility for Learning

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Very high	21	20.38%
b-High	40	38.83%
c-Average	26	25.24%
d-Low	10	9.70%
e-Very low	6	5.82%
<i>Total</i>	<i>103</i>	<i>100%</i>

Table 5.35 points out that 38.83% of the informants confessed that they were highly responsible for their own learning. Also, 25.24% of them insisted that their responsibility was average. 20.38% of the students argued that their responsibility for learning was very high. Conversely, 9.70% and 5.82% of the students declared that their responsibility was low and very low. As a result, most of the students (84.45%) confessed that they were responsible for their learning.

Question 15: Which type of autonomy could be more effective in learning?

a-Individual autonomy b-Collaborative autonomy

Table 5.36

The Most Effective Type of Autonomy: Individual v. Collaborative

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Individual autonomy	26	25.24%
b-Collaborative autonomy	77	74.75%
<i>Total</i>	<i>103</i>	<i>100%</i>

As it is illustrated in Table 5.36, the majority of the students (74.75%) argued that the most effective factor in learning is collaborative autonomy. However, 25.24% of students preferred individual autonomy. The current results contradict those of question twelve (12) when 48.54% of the students preferred individual work. This means that twenty-four (24) students were torn between individual and group work. This may be due to the fact that they did not differentiate between group work and collaborative autonomy since students may work in groups but not autonomously.

Question 16: Which type of autonomous learning is more useful?

- a. Teacher-guided learning (*autonomy guided by the teacher*)
- b. Self-guided learning (*self-guided autonomy*)

Table 5.37

Teacher-guided v. Self-guided Learning

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Teacher-guided learning	89	86.40%
b-Self-guided learning	14	13.59%
<i>Total</i>	<i>103</i>	<i>100%</i>

The results in Table 5.37 indicate that the majority of the students (86.40%) were for teacher-guided autonomous learning; however, 13.59% of them argued that self-guided autonomous learning is more useful than teacher-guided one. Although 81.55% of the students considered themselves as self-reliant and 74.75% of them advocated collaborative autonomy, they had not reached the highest degree of autonomy which is self-guidance. They still rely on the teachers' role as a guide.

Question 17: Which aspect of autonomy is more interesting to you?

- a. Autonomy in the classroom
- b. Autonomy out of the classroom

Table 5.38

Autonomy in the Classroom v. Autonomy out of the Classroom

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Autonomy in the classroom	42	40.77%
b-Autonomy out of the classroom	61	59.22%
<i>Total</i>	<i>103</i>	<i>100%</i>

As it is shown in Table 5.38, more than half of the students (59.22%) argued that they were more interested in autonomy out of the classroom than autonomy in the classroom. This was perhaps due to the teachers' dominance in the classroom in contrast to outside the classroom where the student would practice the language freely as in virtual learning environments. Conversely, 40.77% of students admitted that they preferred autonomy in the classroom. Maybe, they feel lost without a teacher since they need continuous guidance.

Question 18: Do you agree that the following factors have promoted or could promote your autonomy? awareness and use of metacognitive strategies, motivation, learning styles, problem-solving skills, self-access and technology-based learning, learner training, teacher autonomy, counselling, project-based learning.

- a-strongly agree b-agree c-not sure d-disagree e-strongly disagree

Several factors could help students promote their autonomy; each factor is dealt with separately as indicated in the following tables:

Table 5.39

Promoting Autonomy through Awareness and Use of Metacognitive Strategies

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Strongly agree	35	33.98%
b-Agree	49	47.58%
c-Not sure	19	18.44%
d-Disagree	0	0%
e-Strongly disagree	0	0%
<i>Total</i>	<i>103</i>	<i>100%</i>

As it is pointed out in the previous table, nearly half of the students (47.58%) agreed that their awareness and use of metacognitive strategies could raise their autonomy. Some students (33.98%) strongly agreed that metacognitive skills are highly influential in increasing autonomy. This implies that the majority of the students (81.58%) were aware of the role played by metacognitive strategies. The rest of the students (18.44%) were not sure about the influence of metacognitive skills over autonomy. This was due to their lack of awareness about their effectiveness in autonomous learning. None denied that awareness and use of metacognitive strategies promote autonomy.

Table 5.40

Promoting Autonomy through Motivation

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Strongly agree	50	48.54%
b-Agree	50	48.54%
c-Not sure	3	2.91%
d-Disagree	0	0%
e-Strongly disagree	0	0%
<i>Total</i>	<i>103</i>	<i>100%</i>

As it is shown in Table 5.40, nearly half of the students (48.54%) agreed that motivation is an influential factor that could promote autonomous learning. The same percentage strongly agreed about that; however, very few students (2.91%) were not sure about that fact. However, no one disagreed about the positive impact of motivation

on autonomy. This implies that nearly all the students (97.08%) were aware that motivation increases autonomy.

Table 5.41

Promoting Autonomy through Learning Styles

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Strongly agree	31	30.09%
b-Agree	52	50.48%
c-Not sure	19	18.44%
d-Disagree	0	0%
e-Strongly disagree	1	0.97%
<i>Total</i>	<i>103</i>	<i>100%</i>

As indicated in Table 5.41, more than half of the students (50.48%) agreed that learning styles could develop their autonomy. 30.09% of students *strongly* agreed about the same idea; on the contrary, 18.44% of students were not sure about the relationship between autonomy and learning styles. 0.97% of the informants strongly disagreed that autonomy is affected by learning styles. None of them disagreed that autonomy is affected by learning styles. So, the majority of the students (80.57%) were aware of the importance of learning styles.

Table 5.42

Promoting Autonomy through Problem-solving Skills

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Strongly agree	26	25.24%
b-Agree	47	45.63%
c-Not sure	28	27.18%
d-Disagree	2	1.94%
e-Strongly disagree	0	0%
<i>Total</i>	<i>103</i>	<i>100%</i>

Data that are displayed in Table 5.42 uncovered that less than half of the students (45.63%) agreed that autonomy is promoted through problem-solving skills. Unexpectedly, 27.18% of the students were not sure about that. Perhaps, they did not know about learning styles. 25.24% of the students strongly agreed that autonomy is enhanced through problem-solving skills. 1.94% of students (two students) disagreed about the relationship between autonomy and problem-solving skills. Yet, no one

strongly disagreed about that. Consequently, the majority of students (70.87%) are aware of the role of problem-solving skills in enhancing autonomy.

Table 5.43

Promoting Autonomy through Self-access and Technology-Based Learning

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Strongly agree	34	33%
b-Agree	47	45.63%
c-Not sure	20	19.41%
d-Disagree	1	0.97%
e-Strongly disagree	0	0%
<i>Total</i>	<i>103</i>	<i>100%</i>

As it is shown in Table 5.43, less than half of the students (45.63%) agreed that autonomy could be promoted through self-access and Technology-based Learning (TBL). They were aware of the importance of integrating technology in learning to increase learners' independence. 33% of the students *strongly* agreed on the same idea; however, 19.41% of them thought that they are not sure that autonomy is increased through the use of technology. 0.97% of the students disagreed about the fact that autonomy is related to technology; but none of them strongly agreed about that. So, the majority of the students (78.63%) were conscious about the relationship between autonomy and technology.

Table 5.44

Promoting Autonomy through Learner Training

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Strongly agree	19	18.44%
b-Agree	55	53.39%
c-Not sure	24	23.3%
d-Disagree	5	4.85%
e-Strongly disagree	0	0%
<i>Total</i>	<i>103</i>	<i>100%</i>

As table 5.44 indicates, more than half of the students (53.39%) agreed that autonomy could be enhanced through training; while, 23.3% of students were not sure about the relationship between autonomy and training. 18.44% of the students strongly agreed that training could make learners autonomous. Unexpectedly, 4.85% of the

students disagreed that autonomy is promoted through training. Yet, none of them strongly disagreed about that. As a result, 71.83% of the informants are aware about the role played by training.

Table 5.45

Promoting Students' Autonomy through Teacher Autonomy

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Strongly agree	18	17.47%
b-Agree	34	33%
c-Not sure	65	63.10%
d-Disagree	13	12.62%
e-Strongly disagree	0	0%
<i>Total</i>	<i>103</i>	<i>100%</i>

Table 5.45 shows that nearly two-thirds of the population (63.10%) were not sure that their autonomy could be promoted through teacher autonomy. This was probably due to their lack of knowledge about teacher autonomy and its impact on learner autonomy. In addition, 33% of the students agreed that their autonomy is affected positively by teacher autonomy. Few students (17.47%) strongly agreed that teacher autonomy is important to develop students' autonomy. The rest of the students (12.62%) disagreed about that. None strongly disagreed that teacher autonomy affects students' autonomy. So, 50.47% of the students claimed that teacher autonomy could be helpful in increasing students' autonomy.

Table 5.46

Promoting Autonomy through Counselling

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-Strongly agree	27	26.21%
b-Agree	38	36.89%
c-Not sure	29	28.15%
d-Disagree	9	8.73%
e-Strongly disagree	0	0%
<i>Total</i>	<i>103</i>	<i>100%</i>

As it is shown in Table 5.46, 36.89% of the respondents agreed that counselling promotes autonomy. 28.15% of students were not sure about that. 26.21% of them strongly agreed that counselling is helpful in increasing autonomy. This entails that

more than half of the students (63.1%) are aware of the importance of the teacher as a counsellor since they could benefit from his/her remarks and direction; however, very few students (8.73%) disagreed that counselling may promote autonomy. None strongly disagreed about that. Consequently, not all students noticed the impact of counselling on autonomous learning.

Table 5.47

Promoting Autonomy through Project-Based Learning

Options	Frequency	Percentage
a-Strongly agree	19	18.44%
b-Agree	47	45.63%
c-Not sure	25	24.27%
d-Disagree	11	10.67%
e-Strongly disagree	1	0.97%
<i>Total</i>	<i>103</i>	<i>100%</i>

Concerning project-based learning, the results in Table 5.47 indicate that nearly half of the students (45.63%) agreed that Project-based Learning is beneficial for increasing autonomy. 24.27% of the students were not sure about that. 18.44% of the students strongly agreed that projects could develop autonomy. Conversely, some students (10.67%) disagreed that autonomy may be promoted through Project-based Learning. 0.79% of the students strongly disagreed that autonomy is promoted through using projects. So, less than two-thirds of the population (64.07%) were aware of the role of Project-based Learning in promoting autonomy.

Question 19: What is the most effective role a teacher should play to promote autonomous learning? please select only one role.

a-Manager

f-collaborator

b-Organizer

g-evaluator

c-Counsellor

d-facilitator

e-corrector

Table 5.48

The Most Effective Role of the Teacher in Autonomous Learning

Options	Frequency	Percentage
a-Manager	14	13.59%
b-Organizer	10	9.70%
c-Counsellor	15	14.56%
d-Facilitator	20	19.41%
e-Corrector	31	30.09%
f-Collaborator	6	5.82%
g-Evaluator	7	6.79%
<i>Total</i>	<i>103</i>	<i>100%</i>

The role of the teacher in developing students' autonomy is very important. Students were asked about the most effective role a teacher plays to develop autonomy. It is observed from Table 5.48 that there was no consensus on the most effective role a teacher could play to promote students' autonomy. 30.09% of the students viewed the teacher as a corrector; 19.41% as a facilitator; 14.56% as a counsellor; 13.59% as a manager; 9.70% as an organizer; 6.79% as an evaluator; and 5.82% as a collaborator. On the whole, many students ignored the role of the teacher as manager, organizer, and collaborator. They were more interested in correcting their mistakes. Thus, they were not all aware of the new roles of the teacher within the learner-centred approach.

Question 20: Do you think that autonomy should be taught as a separate module?

a-yes b-no

Table 5.49

Teaching Autonomy as a Separate Module

Options	Frequency	Percentage
a-Yes	65	63.10%
b-No	38	36.89%
<i>Total</i>	<i>103</i>	<i>100%</i>

The aim behind this question is to see students' opinions about teaching autonomy as a separate module as it is the case in the *University of Nottingham* (as cited in Sinclair, 2008, p. 249). Students' agreement on that reflects their awareness about the importance of autonomy. As it is shown in Table 5.49, less than two-thirds of the population (63.10%) were for teaching autonomy as a separate module. 36.89% of

students were against. This implies that some students ignored the importance of teaching them how to be autonomous.

Section Four: Influence of Autonomy and Integrity on the Quality of Undergraduate Research

Question 21: When you have research homework, what do you do? Please, select only one answer.

a-I write it using my own words and in-text and bibliography citation

b-I write it using my own words and in-text citation but I do not cite the references.

c-I write it using my own words and in-text citation but I falsify the bibliography.

d-I write it using my own words without in-text and bibliography citation.

e-I copy it from a classmate.

f-I copy it from the Internet or printed books.

g-I buy it from the Internet websites and consider it as my own work.

h-I ask someone else to do it for me using his/her own style.

i-I do not do it at all.

Table 5.50

Students' Plagiarism

<i>Options</i>	<i>Frequency</i>	<i>Percentage</i>
a-I write it using my own words and in-text and bibliography citation.	11	10.67%
b-I write it using my own words and in-text citation but I do not cite the references.	21	20.38%
c-I write it using my own words and in-text citation but I falsify the bibliography.	6	5.82%
d-I write it using my own words without in-text and bibliography citation.	23	22.33%
e-I copy it from a classmate.	0	0%
f-I copy it from the Internet or printed books.	40	38.83%
g-I buy it from the Internet websites and consider it as my own work.	0	0%
h-I ask someone else to do it for me using his/her own style.	0	0%
i-I do not do it at all.	2	1.94%
<i>Total</i>	<i>103</i>	<i>100%</i>

The aim of this question is to detect the students' tendency to plagiarize whenever they are assigned homework. 38.83% of the students proclaimed that they copy it from the Internet or printed books. So, they admitted that they were used to plagiarize the homework from the Internet or printed books. Moreover, 22.33% of them stated that they write it using their own words without in-text and bibliography citation.

Thus, they are considered as plagiarists of others' ideas. 20.38% of the students admitted that they write it using their own words and in-text citation but they do not cite the references; they were not aware of the importuning of referencing. Furthermore, 10.67% of the students declared that they write it using their own words and in-text and bibliography citation. So, they considered themselves as honest learners. 5.82% of the students asserted that they write it using their own words and in-text citation but they falsify the bibliography. This implies that they did not write correct sources because they were not interested in giving truthful information about authors. 1.94% of students, claimed that they do not do the homework at all. Unexpectedly, none claimed that they copy it from classmates or ask somebody to do it for them. Similarly, none declared that they buy it from the Internet. In sum, it is observed that 67.36% of the students committed different forms of plagiarism while 10.67% of them considered themselves as non-plagiarists.

Question 22: Has the Internet increased plagiarism (theft of other people's works) in higher education?

a-yes b-no

Table 5.51

The Increase of Plagiarism in the Internet Age

Options	Frequency	Percentage
a-Yes	100	97.08%
b-No	3	2.91%
<i>Total</i>	<i>103</i>	<i>100%</i>

The aim of this question is to know the students' views about the impact of the Internet on increasing plagiarism. Nearly all the students (97.08%) claimed that the Internet had increased plagiarism. They were aware of the impact of millions of Websites on academic dishonesty; however, 2.91% of the students neglected the

influence of the Internet on increasing plagiarism. They probably thought that students had been plagiarists before the emergence of the Internet.

Question 23: Is plagiarism deliberate or unintentional?

a-deliberate

b-unintentional

Table 5.52

Types of Students' Plagiarism

Options	Frequency	Percentage
a-Deliberate	53	51.45%
b-Unintentional	50	48.54%
<i>Total</i>	<i>103</i>	<i>100%</i>

To know the type of plagiarism, students were asked whether plagiarism is deliberate or unintentional. As it is stated in Table 5.52, more than half of the students (51.45%) confessed that plagiarism is deliberate. Some students plagiarized on purpose; however, less than half of the students (48.54%) regarded it as unintentional since many students did not know that they committed plagiarism.

Question 24: Is re-submitting students' previous work as a new one considered as plagiarism?

a-yes

b-no

Table 5.53

Students' Attitudes towards Self-plagiarism

Options	Frequency	Percentage
a-Yes	45	43.68%
b-No	58	56.31%
<i>Total</i>	<i>103</i>	<i>100%</i>

This question aims at knowing whether the students knew self-plagiarism. 56.31% of the students stated that re-submitting an old work as new is not considered as plagiarism. Nonetheless, 43.68% of the informants claimed that re-submitting a

previous work again is viewed as plagiarism. So, more than half of the students were not aware of self-plagiarism.

-As far as you are concerned, have you ever re-submitted your previous work as a new one?

a-yes b-no

Table 5.54

Students' Self-plagiarism

Options	Frequency	Percentage
a-Yes	42	40.77%
b-No	61	59.22%
<i>Total</i>	<i>103</i>	<i>100%</i>

The goal behind this question is to investigate the students' self-plagiarism. More than half of the students (59.22%) argued that they had never committed self-plagiarism by submitting a previous work as a new one. 40.77% of students admitted that they committed self-plagiarism. Consequently, self-plagiarism was prevalent among many students.

Question 25: Have you ever bought an online paper from the Internet and considered it as your own?

a-yes b-no

Table 5.55

Students' Use of Paper Mills

Options	Frequency	Percentage
a-Yes	0	0%
b-No	103	100%
<i>Total</i>	<i>103</i>	<i>100%</i>

We asked this question to know about the students' use of paper mills which has become a frequent phenomenon among students abroad. All students (100%) declared that they had never bought online papers. Causes behind that are displayed through the following question:

-If your answer is no, why?**a-** Non-ownership of a credit card**b-** Reliance on other forms of plagiarism**c-** Respect of research ethics

Table 5.56

Causes of Students' Non-use of Paper Mills

Options	Frequency	Percentage
a-Non-ownership of a credit card	49	47.57%
b-Reliance on other forms of plagiarism	24	23.30%
c-Respect of research ethics	30	29.12%
<i>Total</i>	<i>103</i>	<i>100%</i>

Table 5.56 indicates that less than half of the students (47.57%) did not use paper mills because of their non-ownership of a credit card. 29.12% of the students declared that the cause of their non-use of paper mills was respect of research ethics. The rest of the students (23.30%) stated that the cause of that was reliance on other forms of plagiarism. So, they did not need to spend money since information is available for free.

Question 26: If you have ever plagiarized other people's works, have you mixed your own words with synonyms of plagiarized words to disguise your plagiarism?

a-yes b-no

Table 5.57

Students' Disguised Plagiarism through Patchwriting

Options	Frequency	Percentage
a-Yes	84	81.55%
b-No	19	18.44%
<i>Total</i>	<i>103</i>	<i>100%</i>

To know whether students use patchwriting in order to disguise plagiarism, we asked students about mixing their words with synonyms of plagiarized words. The majority of the students (81.55%) admitted that they had done it. Few students

(18.44%) argued that they had never done it. So, the majority of the students were used to plagiarize in a way or another.

Question 27: Do you collude (conspire) with your peers by submitting the same homework?

a-yes b-no

Table 5.58

Collusion as a Form of Plagiarism

Options	Frequency	Percentage
a-Yes	40	38.83%
b-No	63	61.16%
<i>Total</i>	<i>103</i>	<i>100%</i>

The aim of this question is to know whether the students plagiarized by submitting the same homework. This form of plagiarism is known as ‘collusion’. 61.16% of the students said that they did not do it; however, 38.83% of the students claimed that they submit the same work. This is contradictory with the results of question twenty-three where none of the students opted for “I copy it from a classmate”. So, collusion existed among students as a frequent form of plagiarism.

Question 28: Do you agree that plagiarism is due to the following causes? the Internet and digital sources, low academic self-esteem, cultural background, time constraints, laziness, family expectations, peer expectations, lack of motivation to study English, heavy workload, difficulty of the homework, limited knowledge of citation and paraphrasing, no punishment by teachers, the nature/design of assignments encourages plagiarism, and inexistence of a written ethical code.

a-strongly agree b-agree c-not sure d-disagree e-strongly disagree

The aim behind this question is uncovering the causes of plagiarism among second-year students and the extent to which students agree on the influence of each cause. The results are displayed in the following tables:

Table 5.59

The Internet and Digital Sources as the Cause behind Plagiarism

Options	Frequency	Percentage
a-Strongly agree	64	62.13%
b-Agree	32	31.06%
c-Not sure	5	4.85%
d-Disagree	1	0.97%
e-Strongly disagree	1	0.97%
<i>Total</i>	<i>103</i>	<i>100%</i>

As it is shown in Table 5.59, less than two-thirds of the population (62.13%) strongly agreed that the cause of academic dishonesty is the Internet and the digital sources. 31.06% of them also agreed that the Internet and the digital sources caused plagiarism; however, 4.85% of students were not sure about that. 0.97% of the informants disagreed about that. The same percentage (0.97%) also strongly disagreed about that. As a result, the majority of the students (93.19%) were convinced that the Internet and digital sources encourage plagiarism.

Table 5.60

Low Academic Self-esteem as the Cause behind Plagiarism

Options	Frequency	Percentage
a-Strongly agree	24	23.30%
b-Agree	49	47.57%
c-Not sure	24	23.30%
d-Disagree	6	5.82%
e-Strongly disagree	0	0%
<i>Total</i>	<i>103</i>	<i>100%</i>

As explained by Tracy (2006, p. 138), students may plagiarize because of their low academic self-esteem. In this study, about half of the students (47.57%) agreed that plagiarism is due to low academic self-esteem. 23.30% of the students strongly agreed about that. The same percentage (23.30%) was not sure about the impact of academic self-esteem on plagiarism avoidance. Very few students (5.82%) disagreed about the correlation between low academic self-esteem and plagiarism. None strongly disagreed that plagiarism is caused by low academic self-esteem. So, the majority of the respondents (70.87) confirmed that low academic self-esteem may cause plagiarism.

Table 5.61

Cultural Background as the Cause behind Plagiarism

Options	Frequency	Percentage
a-Strongly agree	10	9.70%
b-Agree	39	37.86%
c-Not sure	37	35.92%
d-Disagree	14	13.59%
e-Strongly disagree	3	2.91%
<i>Total</i>	<i>103</i>	<i>100%</i>

It is argued that the students' cultural beliefs affect their perception of plagiarism (Gu & Brooks, 2011, pp. 143-145). Some students may plagiarize others' words and ideas because in their culture plagiarism is allowed and is not considered as a serious crime. As it is indicated in Table 5.61, 37.86% of the students agreed on the impact of culture on the students' plagiarism. 35.92% of the students were not sure about that. 13.59% of the students disagreed with the influence of cultural background over students' academic dishonesty. Few students (9.70%) strongly agreed that it may lead to plagiarism. As a result, 47.65% of the respondents consider culture as an influential factor that prompts academic dishonesty.

Table 5.62

Time Constraints as the Cause behind Plagiarism

Options	Frequency	Percentage
a-Strongly agree	26	25.24%
b-Agree	35	33.98%
c-Not sure	23	22.33%
d-Disagree	15	14.56%
e-Strongly disagree	4	3.88%
<i>Total</i>	<i>103</i>	<i>100%</i>

As time constraints could lead to plagiarism, a sufficient amount of time should be allocated for each task. As it is displayed in the previous table, 33.98% and 25.24% of the students agreed/strongly disagreed respectively that time constraints can lead to plagiarism; however, 22.33% of the students were not sure about that. 14.56% of the students disagreed with the idea that plagiarism is the result of time constraints. 3.88%

of them strongly disagreed about that. As a consequence, more than half of the informants (59.22%) considered time constrains as a cause of plagiarism.

Table 5.63

Laziness as the Cause behind Plagiarism

Options	Frequency	Percentage
a-Strongly agree	66	64.07%
b-Agree	20	19.41%
c-Not sure	10	9.70%
d-Disagree	6	5.82%
e-Strongly disagree	1	0.97%
<i>Total</i>	103	100%

Laziness may be the cause behind plagiarism (Dick et al, 2008, p. 168). The aim of this question is to know the students' views about the influence of laziness on plagiarism. Nearly two-thirds of the population (64.07%) strongly agreed that laziness may cause plagiarism. Also, 19.41% of students agreed on this opinion; while, 9.70% of the students were not sure about that. Only 5.82% and 0.97% of students respectively disagreed and strongly disagreed on this idea. In sum, the majority of the students (83.48%) accepted that laziness could lead to plagiarism.

Table 5.64

Family Expectations as the Cause behind Plagiarism

Options	Frequency	Percentage
a-Strongly agree	5	4.85%
b-Agree	23	22.33%
c-Not sure	40	38.83%
d-Disagree	27	26.21%
e-Strongly disagree	8	7.76%
<i>Total</i>	103	100%

Some students plagiarize others' works due to family expectations (Dick et al.; 2008, p.169). Parents expect their children to succeed and get good results. In this respect, 38.83% of the students were not sure. 26.21% of the students disagreed; 22.33% and 4.85% of them respectively agreed and strongly agreed that family expectations may cause plagiarism. 7.76% of the students strongly disagreed on this

idea. As a result, 27.18% of the students were proponents of the idea that plagiarism is due to family expectations.

Table 5.65

Peer Expectations as the Cause behind Plagiarism

Options	Frequency	Percentage
a-Strongly agree	6	5.82%
b-Agree	23	22.33%
c-Not sure	37	35.92%
d-Disagree	29	28.15%
e-Strongly disagree	8	7.76%
<i>Total</i>	<i>103</i>	<i>100%</i>

Some scholars, like Dick et al. (2008, p. 169), think that plagiarism is caused by peer expectations. As Table 5.65 points out, some students (35.92%) were not sure about the impact of peer expectations on students' plagiarism. 28.15% of the students disagreed on that; 22.33% of the students agreed on this idea. Few students (7.76%) strongly disagreed about peer expectations as the cause behind plagiarism. However, the rest (5.82%) strongly agreed. As a result, only 28.15% of the informants confirmed that peer expectations may lead to plagiarism.

Table 5.66

Lack of Learning Motivation as the Cause behind Plagiarism

Options	Frequency	Percentage
a-Strongly agree	20	19.41%
b-Agree	46	44.66%
c-Not sure	16	15.53%
d-Disagree	15	14.56%
e-Strongly disagree	6	5.82%
<i>Total</i>	<i>103</i>	<i>100%</i>

The aim of this question is to find out whether lack of motivation could lead to plagiarism. 44.66% and 19.41% of students respectively agreed and strongly agreed that lack of motivation to study English may lead to plagiarism. 15.53% of the students were not sure about that; however, 14.56% and 5.82% of the students respectively disagreed and strongly disagreed that motivation may influence plagiarism. As a result, 64.07% of the students think that there is a relationship between lack of motivation and plagiarism.

Table 5.67

Heavy Workload as the Cause behind Plagiarism

Options	Frequency	Percentage
a-Strongly agree	23	22.33%
b-Agree	28	27.18%
c-Not sure	22	0.21%
d-Disagree	17	16.50%
e-Strongly disagree	3	2.91%
<i>Total</i>	<i>103</i>	<i>100%</i>

The students' opinions, about whether heavy workload could lead to plagiarism or not, were gathered. As it is indicated in the previous table, 27.18% and 22.33% of the students respectively agreed and strongly agreed that heavy workload may lead to students' plagiarism. 16.50% of them disagreed about that. Few students (2.91%) strongly disagreed that plagiarism is caused by heavy workload. So, nearly half the students (49.51%) pointed out that there is a relationship between heavy workload and plagiarism.

Table 5.68

Difficulty of the Homework as the Cause behind Plagiarism

Options	Frequency	Percentage
a-Strongly agree	24	23.30%
b-Agree	43	41.74%
c-Not sure	12	11.65%
d-Disagree	22	21.35%
e-Strongly disagree	2	1.94%
<i>Total</i>	<i>103</i>	<i>100%</i>

When the homework is difficult, some students would feel obliged to plagiarize it. As it is indicated in Table 5.68, 41.74% of the respondents agreed that plagiarism is caused by difficulty of the homework and 23.30% of them strongly agreed with this fact. Moreover, 11.65% of the students were not sure about that. Contrary to that, 21.35% and 1.94% of the students respectively disagreed and strongly disagreed that plagiarism may be caused by the difficulty of the homework. As a consequence, nearly two-thirds of the students (65.04%) were proponents of the idea that difficult homework may compel some students to plagiarize others' works.

Table 5.69

Limited Knowledge of Citation and Paraphrasing as the Cause behind Plagiarism

Options	Frequency	Percentage
a-Strongly agree	20	19.41%
b-Agree	51	49.51%
c-Not sure	22	21.35%
d-Disagree	7	6.79%
e-Strongly disagree	3	2.91%
<i>Total</i>	<i>103</i>	<i>100%</i>

Nearly half of the students (49.51%) agreed that plagiarism may be due to limited knowledge of paraphrasing and citation; however, 21.35% were not sure about that. 19.41% of the students strongly agreed. 6.79% and 2.91% of students disagreed and strongly respectively disagreed that plagiarism is due to limited knowledge of citation and paraphrasing. As a consequence, the majority of the students (68.92%) supported the idea that ignorance of paraphrasing and citation is responsible for the students' academic dishonesty.

Table 5.70

Absence of Sanctioning as the Cause behind Plagiarism

Options	Frequency	Percentage
a-Strongly agree	28	27.18%
b-Agree	35	33.98%
c-Not sure	22	21.35%
d-Disagree	11	10.67%
e-Strongly disagree	7	6.79%
<i>Total</i>	<i>103</i>	<i>100%</i>

The results in table 5.70 indicate that 33.98% and 27.18% of students agreed/strongly agreed respectively that plagiarism is due to absence of teachers'/administrators' sanctioning; however, 21.35% of students were neutral. They were not sure about the influence of sanctioning on deterring academic dishonesty. 10.67% and 6.79% of the students respectively disagreed and strongly disagreed about the fact that plagiarism is caused by absence of sanctions. So, 61.16% of the students advocated the idea that absence of sanctioning is the cause behind plagiarism; while, 38.84% of them neglect the importance of sanctions in getting rid of this problem.

Table 5.71

The Design of Assignments as the Cause behind Plagiarism

Options	Frequency	Percentage
a-Strongly agree	14	13.59%
b-Agree	30	29.12%
c-Not sure	40	38.83%
d-Disagree	15	14.56%
e-Strongly disagree	4	3.88%
<i>Total</i>	<i>103</i>	<i>100%</i>

When the homework is easy to plagiarize, students would be encouraged indirectly to plagiarize it. 38.83% of the students were not sure about that. 29.12% and 13.59% of the students agreed/ strongly agreed respectively about that. Oppositely, 14.56% and 3.88% of the students respectively disagreed and strongly disagreed that the easiness of the homework could lead to plagiarism. As a result, 42.71% of the students supported the idea that the design of the homework could lead to plagiarism.

Table 5.72

Inexistence of a Written Ethical Code as the Cause behind Plagiarism

Options	Frequency	Percentage
a-Strongly agree	14	13.59%
b-Agree	34	33%
c-Not sure	43	41.74%
d-Disagree	8	7.76%
e-Strongly disagree	4	3.88%
<i>Total</i>	<i>103</i>	<i>100%</i>

A written ethical code could prohibit plagiarism and preserve academic integrity. It is an agreement between students and the teacher from the beginning that plagiarism is forbidden and that plagiarism necessitates punishment. Hence, students should have access to a written ethical code. Since, students may not have a lot of information about honour codes, 41.74% of them were not sure about the role of those codes in preserving integrity; however, 33% and 13.59% of students respectively agreed and strongly agreed about the impact of honour (ethical) codes on plagiarism avoidance. 7.76% and 3.88% of the students disagreed/strongly disagreed that

plagiarism is caused by the absence of ethical codes. In sum, 46.59% of the students advocated the idea that ethical codes have an impact on plagiarism avoidance.

To sum up, the five main causes behind plagiarism as indicated by students in the department of English, University of 8 Mai 1945, Guelma are:

- 1- the Internet and digital sources (93.19%).
- 2- laziness (83.48%).
- 3- low academic self-esteem (70.87%).
- 4- limited knowledge of citation and paraphrasing (68.92%).
- 5- Difficulty of the homework (65.04%).

The five causes are interrelated in the sense that the Internet encourages laziness especially when the homework is difficult; laziness too may lead to limited knowledge of citation and paraphrasing due to lack of practice.

Question 30: Do you think teachers should sanction (punish) students who plagiarize?

-yes -no

Table 5.73

Students' Attitudes towards Sanctioning Plagiarists

Options	Frequency	Percentage
a-Yes	70	67.96%
b-No	33	32.03%
<i>Total</i>	<i>103</i>	<i>100%</i>

The aim of this question is to make sure that students advocated sanctioning as an effective strategy for plagiarism deterrence. Most of the students (67.96%) supported the idea that teachers should sanction students who plagiarize others' words and ideas. This implies that they are aware that the absence of sanctions could encourage plagiarism. Conversely, 32.03% of the students opposed that idea. This entails that they ignored the importance of sanctioning in fighting academic dishonesty.

Question 31: Have your teachers ever sanctioned students who plagiarize?

a-yes b-no

Table 5.74

Teachers' Application of Sanctioning

Options	Frequency	Percentage
a-Yes	55	53.39%
b-No	48	46.60%
<i>Total</i>	<i>103</i>	<i>100%</i>

It is important to know about teachers' application of plagiarists' punishment. More than half of the students (53.39%) declared that their teachers had punished plagiarists; however, 46.60% of students confessed that their teachers had never punished plagiarists. This denotes that some teachers were probably against punishment or they did not have time to punish plagiarists by asking them to re-do the assignment.

-If yes, what were the plagiarists' sanctions?

a-Giving them a lower mark

b-Giving them 0

c-Verbal criticism and asking them to re-do the homework

d-Disciplinary councils

e-Exclusion from the module

Table 5.75

Plagiarists' Sanctions

Options	Frequency	Percentage
a-Giving them a lower mark	13	23.63%
b-Giving them zero	12	11.65%
c-Verbal criticism and asking them to re-do the homework	39	37.86%
d-Disciplinary councils	0	0%
e-Exclusion from the module	0	0%
f-Other	0	0%

This question aims at exploring the teachers' preferred ways of punishment as explained by the students. Some students (nine) opted for two penalties: the second and the third one. Therefore, the total is not indicated. 37.86% of the students opted for verbal criticism and asking plagiarists to re-do the homework. 23.63% of them chose 'giving them a lower mark'; while 11.65% of the students selected 'giving them zero'.

None opted for ‘disciplinary board’ and ‘exclusion from the module’. Unlike foreign universities, these two penalties do not exist in Algerian universities in case of plagiarism. They are used only as a reaction for cheating in examinations. Perhaps this led to the widespread of the phenomenon among students in Algerian universities.

Question 31: Do you know the anti-plagiarism code issued by the Algerian Ministry of Higher Education in July, 2016?

a-yes b-no

Table 5.76

Students’ Knowledge of the Anti-plagiarism Code n° 933

Options	Frequency	Percentage
a-Yes	0	0%
b-No	103	100%
<i>Total</i>	<i>103</i>	<i>100%</i>

Ignorance of the anti-plagiarism code could be the cause behind plagiarism. As expected, all students (100%) did not know the anti-plagiarism code number 933 that was issued in July, 28th, 2016 by the *Algerian Ministry of Higher Education and Scientific Research*. Students need to be informed about this code. Although it is posted on the website of the Ministry MESRS (*Ministère de l’Enseignement Supérieure et de la Recherche Scientifique*), students did not hear about it. When asked about it through informal conversation, all the second-year students did not even know about it.

Question 32: Does your department apply an anti-plagiarism code?

a-yes b-no

Table 5.77

Application of the Anti-plagiarism Code n° 933

Options	Frequency	Percentage
a-Yes	0	0%
b-No	16	15.53%
c-I am not sure	87	84.46%
<i>Total</i>	<i>103</i>	<i>100%</i>

To make sure that the students were not informed about the anti-plagiarism code, they were asked whether their department of English applied any anti-plagiarism code. As it appears in Table 5.77, the anti-plagiarism code is not applied in the department of English (University of 8 Mai 1945, Guelma, Algeria) since the majority of students (84.46%) were not sure and 15.53% of students confirmed that by selecting “no”.

Question 33: Are all teachers able to detect plagiarism?

a-yes b-no

Table 5.78

Teachers' Ability to Detect Plagiarism

Options	Frequency	Percentage
a-Yes	32	31.06%
b-No	71	68.93%
<i>Total</i>	<i>103</i>	<i>100%</i>

Plagiarism detection is important to fight it. Hence, we asked students if all teachers were able to detect it. The majority of the students (68.93%) argued that not all teachers were able to detect plagiarism; however, 31.06% of students stated that all teachers were able to detect plagiarism. Causes behind the teachers' inability to detect plagiarism are explained in the following question/table:

-If the answer is no, why are some teachers unable to detect plagiarism?

a-Non-use of automatic/electronic plagiarism detection software

b-Unavailability of some books in digital format

c-Time constraints

Table 5.79

Causes of Teachers' Inability to Detect Plagiarism

Options	Frequency	Percentage
a-Non-use of automatic/electronic plagiarism detection software	39	37.86%
b-Unavailability of some books in digital format	23	32.39%
c-Time constraints	28	39.43%
d-Other	1	1.40%

Concerning the causes of the teachers' inability to detect plagiarism, 39.43% of the students said that the cause is time constraints. They think that teachers do not have time to search for plagiarized texts especially with the large class size. 37.86% of the students declared that the teachers do not detect plagiarism because of the non-use of software for 'automatic plagiarism detection'. So, the teachers did not use electronic software that detects plagiarism because they did not want to do so or they were not trained to do so. 32.39% of them considered unavailability of some books in digital format as the cause behind the inability of some teachers to detect plagiarism. This is due to the fact that not all books have an electronic version, especially old books. One student opted for 'other' and argued that "some teachers plagiarized when they were students; therefore, they tolerate plagiarists"!

Question 34: Is paraphrasing in acknowledging authorship?

a-very easy b-easy c-difficult d-very difficult

Table 5.80

Paraphrasing as an Easy or Difficult Process

Options	Frequency	Percentage
a-Very easy	3	2.91%
b-Easy	43	41.74%
c-Difficult	53	51.45%
d-Very difficult	4	3.88%
<i>Total</i>	<i>103</i>	<i>100%</i>

The aim behind this question is to know whether paraphrasing is easy or difficult for students. 41.74% of the students considered it as easy while 2.91% of them viewed it as very easy. This means that they had enough vocabulary and correct grammar that could enable them to re-word sentences. Contrary to that, more than half of the informants (51.45%) confessed that paraphrasing is difficult whereas 3.88% of them claimed that it is very difficult. To know the causes behind difficulties in paraphrasing, the students' answers are displayed in the following tables:

-If difficult or very difficult, do you agree that the following may be the causes behind that?

a-Grammatical competence **b**-lack of lexical competence **c**-no or unlimited understanding of the statement **d**-no mastery of the paraphrasing techniques.

Table 5.81

Lack of Grammatical Competence as the Cause of Difficult Paraphrasing

Options	Frequency	Percentage
a-Strongly agree	15	26.31%
b-Agree	32	56.14%
c-Not sure	9	15.78%
d-Disagree	1	1.57%
e-Strongly disagree	0	0%
<i>Total</i>	<i>57</i>	<i>100%</i>

As it is shown in Table 5.81, more than half of the students (56.14%) agreed that difficult paraphrasing is the result of the lack of grammatical competence. Moreover, 26.31% of the students strongly disagreed that the cause of difficult paraphrasing is lack of grammatical competence. In contrast, few students (15.78%) were not sure about the effect of limited grammar knowledge on paraphrasing. In addition, only 1.57% of students, which equals one student, disagreed that lack of grammatical competence could lead to difficult paraphrasing. None strongly disagreed. So, the majority of the students (82.45%) were convinced that grammar is helpful in facilitating paraphrasing.

Table 5.82

Lack of Lexical Competence as the Cause of Difficult Paraphrasing

Options	Frequency	Percentage
a-Strongly agree	8	14.03%
b-Agree	36	63.15%
c-Not sure	11	19.29%
d-Disagree	2	3.50%
e-Strongly disagree	0	0%
<i>Total</i>	<i>57</i>	<i>100%</i>

Table 5.82 shows that 63.15% of the respondents agreed that lack of lexical competence could make paraphrasing difficult. Besides, 14.03% of the students strongly agreed about that; while, 19.29% of them were not sure about the relation

between vocabulary and paraphrasing. 3.50% of the informants disagreed that limited vocabulary may lead to hard paraphrasing. None strongly disagreed. Consequently, the majority of the students (77.18%) confirmed the idea that lack of lexical competence could make paraphrasing difficult.

Table 5.83

No or Limited Understanding of the Statement as the Cause of Difficult Paraphrasing

Options	Frequency	Percentage
a-Strongly agree	10	17.54%
b-Agree	32	56.14%
c-Not sure	13	22.80%
d-Disagree	2	3.50%
e-Strongly disagree	0	0%
<i>Total</i>	<i>57</i>	<i>100%</i>

As it is indicated in Table 5.83, more than half of the students (56.14%) agreed that the cause of difficult paraphrasing is no or limited understanding of the statement. When students cannot understand the statement, they could not re-word it. 22.80% of the students were neutral while 17.54% of the students strongly agreed about the influence of understanding the passage on paraphrasing. 3.50% of students disagreed that difficult paraphrasing is due to no understanding of the text. None strongly disagreed about that. As a result, 73.68% of the participants are aware that understanding the passage is very interesting since it could facilitate paraphrasing.

Table 5.84

No Mastery of the Paraphrasing Techniques as the Cause of Difficult Paraphrasing

Options	Frequency	Percentage
a-Strongly agree	14	24.56%
b-Agree	25	43.85 %
c-Not sure	13	22.80%
d-Disagree	5	8.77%
e-Strongly disagree	0	0%
<i>Total</i>	<i>57</i>	<i>100%</i>

As table 5.84 shows, about half of the students (43.85%) agreed that difficult paraphrasing could be caused by no mastery of the paraphrasing techniques. 24.56% of the students strongly agreed about that; however, some students (22.80%) were not sure

about the effect of wrong application of the paraphrasing techniques on paraphrasing. Few students (8.77%) disagreed about that while none strongly disagreed about that. In sum, 68.41% of the students were convinced that paraphrasing may be hard because of no mastery of its techniques.

Table 5.85

Low Academic Writing Proficiency as the Cause of Difficult Paraphrasing

Options	Frequency	Percentage
a-Strongly agree	20	35.08%
b-Agree	23	40.35%
c-Not sure	8	14.03%
d-Disagree	6	10.52%
e-Strongly disagree	0	0%
<i>Total</i>	<i>57</i>	<i>100%</i>

Table 5.85 shows that 40.35% and 35.08% of the students agreed and strongly agreed respectively that difficult paraphrasing is due to low academic writing proficiency; while, 14.03% of the students were not sure about that; 10.52% of them disagreed about the fact that difficulties in paraphrasing are due to lack of academic writing proficiency. None strongly disagreed that academic writing level could affect paraphrasing. Consequently, 75.43% of the students are aware that academic writing proficiency is needed to facilitate paraphrasing.

Question 35: Do you know citation styles: MLA and/or APA?

a-yes b-no

Table 5.86

Students' Knowledge of Citation Styles (MLA and/or APA)

Options	Frequency	Percentage
a-Yes	86	83.49%
b-No	17	16.50%
<i>Total</i>	<i>103</i>	<i>100%</i>

The students were asked about their knowledge of citation styles. The majority of them (83.49%) claimed that they knew citation styles. Perhaps they had studied them

in their first-year; however, 16.50% of the students declared that they did not know citation styles. This could be due to their lack of attention in the classroom.

-If the answer is yes, have you applied them?

a-yes b-no

Table 5.87

Students' Application of Citation Styles (MLA and APA)

Options	Frequency	Percentage
a-Yes	0	0%
b-No	86	100%
<i>Total</i>	<i>86</i>	<i>100%</i>

We wanted through this question to know whether the students applied citation styles or not since knowledge of citation styles without practice is not enough. 100% of the students declared that they did not apply them. So, their knowledge of citation styles was very limited.

Question 36: Does autonomy lead to high research quality?

Table 5.88

Achieving High Research Quality through Autonomy

Options	Frequency	Percentage
a-Yes	92	89.32%
b-No	11	10.67%
<i>Total</i>	<i>103</i>	<i>100%</i>

Students were asked whether autonomy could lead to high research quality. The majority of the students (89.32%) claimed that autonomy may lead to high research quality; however, few students (10.67%) stated the opposite. The former were aware of the importance of autonomy in improving research quality while the latter ignored its benefits.

-If the answer is yes, how? Classify the following suggested means from 1 to 5.

- a- Independent search for information
- b- Practice of citation styles
- c- Practice of academic writing techniques

d- Reading about research ethics

e- Self-assessment of one' s research

Table 5.89

Ways of Achieving High Research Quality through Autonomy

<i>Items</i>	<i>R1</i>	<i>R2</i>	<i>R3</i>	<i>R4</i>	<i>R5</i>
a-Independent search for information	31	19	6	21	15
b-Practice of citation styles	4	19	30	28	11
c-Practice of academic writing techniques	28	26	19	12	7
d-Reading about research ethics	15	16	26	12	23
e-Self-assessment of one' s research	13	14	14	21	30

R: rank

Average ranking for each choice is counted following this rule:

$$\frac{x_1w_1 + x_2w_2 + x_3w_3 + x_4w_4 + x_5w_5}{N}$$

(Source: SurveyMonkey, 1999-2017)

To explain, x_1 is the largest number of choices as indicated by students. This implies that x is the smallest number of choices as indicates by students for the first item. W is the weight allocated to each choice so that the largest choice has the biggest weight. Since the number of choices is five (5) the biggest weight is w_5 while the smallest is w_1 . To know which item was ranked the first by students the average ranking for each item was counted respectively as follows:

$$(31 \times 5) + (21 \times 4) + (19 \times 3) + (15 \times 2) + (6 \times 1) = \frac{155 + 84 + 57 + 30 + 6}{5} = \frac{332}{5}$$

$$= 66.4\%$$

$$(30 \times 5) + (28 \times 4) + (19 \times 3) + (11 \times 2) + (4 \times 1) = \frac{150 + 112 + 57 + 22 + 4}{5} = \frac{345}{5}$$

$$= 69\%$$

$$(28 \times 5) + (26 \times 4) + (19 \times 3) + (12 \times 2) + (7 \times 1) = \frac{140 + 104 + 57 + 24 + 7}{5} = \frac{332}{5}$$

$$= 66.4\%$$

$$(26 \times 5) + (23 \times 4) + (16 \times 3) + (15 \times 2) + (12 \times 1) = \frac{130 + 92 + 48 + 30 + 12}{5} = \frac{312}{5}$$

$$= 62.4\%$$

$$(30 \times 5) + (21 \times 4) + (14 \times 3) + (14 \times 3) + (13 \times 2) = \frac{150 + 84 + 52 + 52 + 26}{5} = \frac{364}{5}$$

$$= 72.8\%$$

The following table introduces the rank of each item according to the statistical findings:

Table 5.90

Ways of Achieving High Research Quality through Autonomy as Ranked by Students

<i>Items</i>	<i>Percentage</i>	<i>Rank</i>
a-Self-assessment of one' s research	72.8%	R1
b-Practice of citation styles	69%	R2
c-Independent search for information	66.4%	R3
d-Practice of academic writing techniques	66.4%	R3
e-Reading about research ethics	62.4%	R4

As it is indicated in Table 5.90, self-assessment of one's research was ranked in the first position as the most effective way of achieving high research quality through autonomy with 72.8%. As a result, the students were aware that the best way of improving research quality is self-assessment, which at the end could lead to autonomy. Practice of citation styles was ranked the second with 69%. This entails that practice is more important than theory in making students' academic writing better. In the third position, there is independent search for information and practice of academic writing techniques as well with 66.4%. In the last rank, we find reading about research ethics in order to raise students' awareness about them with 62.4%.

Question 37: What is the best strategy teachers have to follow to improve students' research quality? Classify the following suggested strategies from 1 to 6.

- a- Raising their autonomy by encouraging them to work independently.
- b- Teaching them research strategies and paraphrasing/citation enhanced by practice.
- c- Teaching them writing techniques and rules and providing feedback.
- d- Teaching them grammar and lexis and correcting their grammatical and lexical errors.
- e- Setting an ethical code for each department.
- f- Punishing plagiarists.

Table 5.91

Students' Choices about the Best Strategy to Improve Students' Research Quality

<i>Items</i>	<i>R1</i>	<i>R2</i>	<i>R3</i>	<i>R4</i>	<i>R5</i>	<i>R6</i>
a-Raising their autonomy by encouraging them to work independently	22	12	15	37	9	8
b-Teaching them research strategies and paraphrasing/citation enhanced by practice	27	22	30	15	6	3
c-Teaching them writing techniques and rules and providing feedback	20	42	21	9	7	3
d-Teaching them grammar and lexis and correcting their grammatical and lexical errors	24	21	23	15	12	8
e-Setting an ethical code for each department	5	5	12	11	41	29
f-Punishing plagiarists	6	4	7	10	25	51

$$\frac{x1w1 + x2w2 + x3w3 + x4w4 + x5w5}{N}$$

N

(Source: SurveyMonkey, 1999-2017)

$$(37 \times 6) + (22 \times 5) + (15 \times 4) + (12 \times 3) + (9 \times 2) + (8 \times 1) = \frac{222 + 110 + 60 + 36 + 18 + 8}{6}$$

$$= \frac{454}{6} = 75.66\%$$

$$(30 \times 6) + (27 \times 5) + (22 \times 4) + (16 \times 3) + (6 \times 2) + (3 \times 1) = \frac{180 + 135 + 88 + 48 + 12 + 3}{6}$$

$$= \frac{466}{6} = 77.66\%$$

$$(42 \times 6) + (21 \times 5) + (20 \times 4) + (9 \times 3) + (7 \times 2) + (3 \times 1) = \frac{252 + 105 + 80 + 27 + 14 + 3}{6}$$

$$= \frac{481}{6} = 80.16\%$$

$$(24 \times 6) + (23 \times 5) + (21 \times 4) + (15 \times 3) + (12 \times 2) + (8 \times 1) = \frac{144 + 115 + 84 + 45 + 14 + 8}{6}$$

$$= \frac{410}{6} = 68.33\%$$

$$(41 \times 6) + (29 \times 5) + (12 \times 4) + (11 \times 3) + (5 \times 2) + (5 \times 2) = \frac{246 + 145 + 48 + 36 + 10 + 10}{6}$$

$$= \frac{495}{6} = 82.5\%$$

$$(51 \times 6) + (25 \times 5) + (10 \times 4) + (7 \times 3) + (6 \times 2) + (4 \times 1) = \frac{306 + 125 + 40 + 21 + 12 + 4}{6}$$

$$= \frac{508}{6} = 84.66\%$$

Table 5.92

The Best Strategy to Improve Students' Research Quality as Ranked by Students

<i>Items</i>	<i>Percentage</i>	<i>Rank</i>
a-Punishing plagiarists	84.66%	R1
b-Setting an ethical code for each department	82.5%	R2
c-Teaching them writing techniques and rules and providing feedback	80.16%	R3
d-Teaching them research strategies and paraphrasing/citation enhanced by practice	77.66%	R4
e-Raising their autonomy by encouraging them to work independently	75.66%	R5
f-Teaching them grammar and lexis and correcting their grammatical and lexical errors	68.33%	R6

Concerning the best strategy to improve research quality, the first rank was allocated to plagiarists' punishment with a percentage of 84.66%. This means that the students were convinced that punishment is necessary to erode plagiarism. Then, setting an ethical code for each department was ranked in the second position with a percentage of 82.5%. Anti-plagiarism codes are necessary to explain what is meant by plagiarism. Also, students cannot be punished if they are not informed about the punishment through using codes. Teaching students writing techniques and rules and providing feedback was placed in the third rank with 80.16%. The fourth position was assigned to teaching research strategies and paraphrasing/citation enhanced by practice with 77.66%. In the fifth rank, raising students' autonomy by encouraging them to work independently got 75.66%. In the sixth position, teaching grammar and lexis and correcting grammatical and lexical errors got 68.33%.

Question 38: Further Comments and Recommendations

5.82% of the informants suggested the following comments and recommendations:

- Autonomy is very important since autonomous students can rely on themselves. Also, it provides them with necessary strategies to solve future problems.
- Instead of plagiarism, students have to read others' works in order to learn about the techniques of writing academic research.

- Students should be given more research opportunities and their work should be evaluated in a fair way.
- Students must have more research topics to practice them.
- Research would increase students' self-confidence and independence.
- Autonomy is beneficial since it improves students' academic proficiency.

It is observed from the previous comments that some students were aware of the importance of autonomy in raising their English proficiency. In addition, enlarging the students' research scopes could lead to high academic writing proficiency. As advised by the previous students, this could be achieved through reading research reports, on the one hand, and extensive practice, on the other hand. Furthermore, evaluation of the students' research papers should be based on objective criteria.

5.3.2. Summary and Discussion of the Results from the Students' Questionnaire

The data from the students' questionnaire indicated that two-thirds of the informants (66.99%) considered themselves as researchers when doing homework. Besides, 70.87% of them viewed their research quality as average; while, 14.56% described it as good. 96.1% of the respondents claimed that research at university is important or extremely important. 100% of the participants admitted that the Internet facilitated research; yet only 29.12% of them always browse the Net to know more about the lessons. Although more than half of the students (51.45%) were convinced that group work could improve their research skills, 74.75% of them preferred collaborative autonomy rather than individual autonomy.

Concerning autonomous learning, most of the students favoured the learner-centred approach to teaching foreign languages. The word 'self-reliance' was used to refer to autonomy since students did not understand the exact meaning of the word 'autonomous' in the pilot study due to its complexity. The majority of them (81.55%)

admitted that they are self-reliant; however, 70.23% of them declared that their self-reliance is limited. This entails that they are autonomous but to a limited extent. To make sure that the students were self-reliant/autonomous, we investigated the most important qualities/characteristics of autonomous learners. The majority of the students classified them from average to very high: self-direction (93.19%), self-monitoring (87.36%), self-regulation (92.21%), self-determination (90.27%), self-confidence (91.25), self-assessment (93.2%), self-evaluation (90.28%), self-control (84.44%), and responsibility (84.45%). As a result, all the participants in this study considered themselves as autonomous to some extent. This implies that they could not rely completely on themselves. What also proved their limited extent of autonomy is that 86.40% of them declared that teacher-guided learning is more useful than learner-guided learning. Eventually, most students did not reach self-guidance as the highest degree of autonomy. More than half of the informants (59.22%) preferred autonomy out-of-the classroom, which is as important as autonomy in the classroom. This is a contradiction to what precedes since teacher-guided students would face difficulties when learning alone beyond the classroom.

In respect to the factors that promoted or could promote the students' autonomy, the majority of the students agreed that the following factors are highly influential: the use of metacognitive skills (81.58%), learning motivation (97.08%), learning styles (80.57), problem-solving skills (70.87%), Technology-based Learning (78.63%), learner training (71.83%). Nearly two-thirds of the population argued that counselling (63.1%), and project-based learning (64.07%) could enhance the students' autonomy; however, 50.47% of the students argued that teacher autonomy is helpful in promoting the students' autonomy. To develop autonomous learning, students assumed different roles for the teacher. There was no consensus on what the most effective role is.

Ranking the assigned roles was as follows: 1.corrector (30.09%), 2.facilitator (19.41%), 3.counsellor (14.56%), 4.manager (13.59%), 5.organizer (9.70%), 6.evaluator (6.79%), 7.collaborator (5.82%). It is observed that some students still give more importance to some old roles of the teacher that were prominent within the teacher-centred approach like corrector and facilitator. However, new roles within the learner-centred approach such as manager, organizer, and collaborator did not attract the attention of many students. Eventually, 63.10% of the students advocated teaching autonomy as a separate module as it is done in foreign universities.

Regarding plagiarism, only 38.83% of the students admitted that they copy-paste homework from the Internet or printed books; however, 10.67% of the students denied that they commit plagiarism. 26.2% of the students stated that they make paraphrasing although they do not write the bibliography or they falsify it. This contradicts the results of the plagiarism test that was administered before the experiment where 100% of the students proved to be guilty of plagiarism in their written assignments where there was no paraphrasing. Furthermore, 97.08% of the students asserted that the Internet had increased plagiarism in higher education. More interestingly, 48.54% of the respondents declared that plagiarism is unintentional while 51.45% of them believed that it is deliberate. The former may not know what is meant by plagiarism exactly; however, the latter committed it on purpose. Additionally, 56.31% of the students did not know about self-plagiarism, 40.77% of them admitted that they had re-submitted their previous work as a new one. Concerning the use of Paper Mills, 100% of the students declared that they had never bought an online paper. When asked about the causes behind that, 47.57% of them explained that they did not own a credit card while 23.30% of them stated that they relied on other forms of plagiarism. Since 29.12% of students stated that they respect research ethics, 70.88%

of the students admitted indirectly that they are plagiarists. Concerning the forms of plagiarism, 81.55% of the students disguised their plagiarism through patchwriting (replacing words with their synonyms). In addition, collusion (another form of plagiarism that means conspiracy by giving the same work) with peers was committed by 38.83% of the students.

Moreover, the majority of the students declared that they plagiarize because of the following causes: the Internet and digital sources (93.19%), laziness (83.48), low academic self-esteem (70.87%), and limited knowledge of citation and paraphrasing (68.92%). Less than two-thirds of the population asserted that the causes behind academic dishonesty are: absence of sanctioning (61.16%), difficulty of the homework (65.04%), lack of learning motivation (64.07%), and time constraints (59.22%). Less than half of the informants argued that plagiarism is due to heavy workload (49.51%), cultural background (47.65%), inexistence of an ethical code (46.59%), and assessments' design (42.71). Conversely, minor causes behind the phenomenon of plagiarism as declared by students are peer expectations (28.15%) and family expectations (27.18%).

Additionally, 67.96% of the students asserted that sanctioning is necessary to deter plagiarism. However, only 53.39% of them maintained that their teachers had sanctioned plagiarists. The most recurrent penalty was 'verbal criticism and asking students to re-do the homework' (37.86%). This penalty was often joined to 'giving them a zero' (11.65%). Sometimes, students were given a lower mark as the only penalty (23.63%). Unfortunately, 'disciplinary councils' and 'exclusion from the module' were not applied by teachers in the Algerian universities as a reaction to plagiarism. They were applied solely in case of cheating. Moreover, 100% of the students did not know the anti-plagiarism code number 933 that had been issued in

July, 28th, 2016 by the Algerian Ministry of Higher Education. Hence, they needed to be informed about it by the teachers and the administrators. 68.93% of the students declared that not all the teachers are able to detect plagiarism because of time constraints (39.43%), non-use of software for “automatic detection of plagiarism” (37.86%), and unavailability of some books in digital format (32.39%). Besides, 51.45% of the students considered paraphrasing as difficult; while 3.88% considered it as very difficult because of lack of grammatical competence (82.45%), lack of lexical competence (77.18%), low academic writing proficiency (75.43%), no or limited understanding of the statement (73.68%), and no mastery of paraphrasing techniques (68.41%).

The majority of the students (83.49%) asserted that they knew citation styles (APA, MLA). Nonetheless, all the students admitted that they had never applied them in their first-year. More importantly, 89.32% of the students were proponents of the idea that autonomy may lead to high research quality. As ranked by students, the following factors are the ways of achieving high research quality through autonomy:

1. Self-assessment of one’s research (72.8%).
2. Practice of citation styles (69%).
3. Independent search for information and Practice of academic writing techniques (66.4%).
4. Reading about research ethics (62.4%).

As ordered by students, the best strategy teachers have to follow to improve students’ research quality is:

1. Punishing plagiarists (84.66%).
2. Setting an ethical code for each department (82.5%).
3. Teaching them writing techniques and rules and providing feedback (80.16%).

4. Teaching them research strategies and paraphrasing/citation enhanced by practice (77.66%).

5. Raising their autonomy by encouraging them to work independently (75.66%).

6. Teaching them grammar and lexis and correcting their grammatical and lexical errors (68.33%).

5.4. Reporting the Results from the Teachers' Interview

The teachers' interview is an additional tool that aimed at probing the teachers' views about students' plagiarism and the impact of autonomy and integrity on the students' research quality. As triangulation is advised in research, three teachers of second-year students who teach methodology and writing were interviewed. Concerning the design, the interview is a standardized open-ended one which was emailed to teachers. Qualitative data from the teachers' interview was categorized and grouped into patterns as follows:

Table 5.93

Coding and Categorizing the Interview Data

Question	Categories	Patterns
1. Do you think that second-year students are autonomous in the classroom? To what extent? How could you notice that?	a. high autonomy b. average autonomy c. average autonomy	Students' level of autonomy
2. Is their autonomy individual or collaborative (cooperation with peers and teachers)? Which one is better for learning? Why?	a. Student-collaborative autonomy b. Student-collaborative autonomy c. Student-collaborative autonomy	Types of students' autonomy
3. Is students' autonomy enhanced by teachers' guidance or self-guidance? How?	a. teachers' guidance b. teachers' guidance c. teachers' guidance	Self-guidance as the highest degree of autonomy
4. Could students become autonomous through interdependence which is collaboration with the teacher? How?	a. autonomy through interdependence b. autonomy through interdependence c. autonomy through interdependence	Autonomy through interdependence
5. How do you usually help students raise their autonomy?	a. Opportunity to learn independently + self-assessment b. metacognitive strategy training + written assignments c. self-access + self-motivation	Ways of raising autonomy
6. Do you encourage students to work independently outside the classroom? Why?	a. outside-class autonomy to improve inside-class autonomy b. outside-class autonomy to enhance research skills	Autonomy in the classroom vs. autonomy outside the classroom.

Question	Categories	Patterns
	c. outside-class autonomy to increase their level and motivation	
7. Do you encourage your students to make self-assessment? Why?	a. for self-assess b. to detect strengths + weaknesses c. to increase their autonomy	(Continued) Self-assessment as an important quality of autonomous students
8. Scholars argued that learners' autonomy necessitates teachers' autonomy. Are you an autonomous teacher? As an autonomous teacher, what do you usually do (give examples)? Is it individually or in collaboration with other teachers?	a. collaborative-autonomous-teacher b. individual-autonomous-teacher c. individual-autonomous-teacher	Teacher autonomy + its types
9. Recently, students are viewed as researchers. Do you encourage students to conduct research? why?	a. student as a researcher b. student as a researcher c. student as a researcher	The student as a researcher
10. How do you generally perceive students' undergraduate research quality (for example written assignments/homework)? What about plagiarism?	a. average research quality + plagiarism b. average research quality + plagiarism c. average research quality + plagiarism	Students' research quality and plagiarism
11. What are the positive effects of autonomy on students' research?	a. critical thinking + effective analytical research b. good quality c. improving research skills	Positive effects of autonomy on students' research
12. Does assessing the quality of students' research necessitate setting shared criteria by teachers? Why?	a. shared criteria + reliability b. shared criteria + reliability c. shared criteria + equal testing	Assessing research quality
13. Do you usually raise students' awareness of the issue of academic integrity? How?	a. ethics + avoiding plagiarism b. teaching research skills c. using information from books and articles	Raising students' awareness about academic integrity
14. Do you know the anti-plagiarism code n°: 933 which was enacted by the Algerian Ministry of Higher Education in July, 28th, 2016? Is it enough to preserve academic integrity or you think that an honour/ethical code has to be issued by the department of English to prevent plagiarism?	a. The Ministry anti-plagiarism code is enough b. code for department c. code for department	The anti-plagiarism code
15. Do you check for students' plagiarism using plagiarism detection software? Justify your answer.	a. use of plagiarism detection software b. non-use of plagiarism detection software c. non-use of plagiarism detection software	Plagiarism detection software
16. Do you punish students as a deterrence strategy when they commit plagiarism? How? If no...why?	a. the worst mark b. lower marks c. lower marks	Punishment as a deterrence strategy
17. Could training students to conduct research independently enhance their research skills? If yes what are the most effective elements teachers should focus on?	a. selecting a topic + self-decision b. metacognitive strategy training c. short research papers + mastering research steps	Ways of training students to conduct research

It is observed from the teachers' interview that the teachers' responses fell within seventeen patterns as indicated in the previous table.

1. *Students' level of autonomy*: although all the interviewees declared that students are autonomous, three categories are indicated in the teachers' answers to the first question. Teacher A commented that most students are highly autonomous and responsible; whereas teacher B asserted that their autonomy is average since they depend on the teachers' instructions and guidance inside the classroom. Teacher C stated that the students' autonomy is average. She related that to their lack of attention and motivation.
2. *Types of students' autonomy*: the three respondents argued that the students' autonomy is collaborative rather than individual. This is a positive remark that could lead to a higher degree of autonomy. However, both teachers B and C argued that individual autonomy is better. Only teacher A appreciated the importance of collaborative autonomy.
3. *Self-guidance as the highest degree of autonomy*: as pointed out by teachers, students are guided by teachers. They lack self-guidance which is the highest degree of autonomy. Unexpectedly, the three teachers do not know the importance of self-guidance. Within this scope, students should eliminate the teachers' guidance and rely on their own direction.
4. *Autonomy through interdependence*: interdependence is collaboration between teachers and students. It is the bridge between heteronomy and autonomy. In this respect, all teachers agreed that interdependence is the key towards autonomy. Teacher A explained that "autonomous learning does not mean that students should be completely left alone". Teacher B added that autonomy through interdependence could be achieved "via the use of technology in the classroom as well as raising

learners' awareness about the importance of autonomy in learning". Finally, teacher C indicated that "teachers' help" plays "a central part".

5. *Ways of raising autonomy*: teacher A argued that autonomy could be achieved by providing students with the opportunity to learn independently through self-access. Teacher B asserted that students could develop autonomy through metacognitive strategy training and written assignments. Teacher C maintained that autonomy may be developed through self-access and self-motivation.
6. *Autonomy in the classroom vs. autonomy outside the classroom*: one teacher explained that out-of-class autonomy is necessary to improve autonomy in the classroom. Meanwhile, teacher B claimed that autonomy outside the classroom is beneficial for improving research skills. Teacher C declared that out-of class autonomy is necessary to improve students' level and motivation.
7. *Self-assessment as an important quality of autonomous students*: making self-assessment entails that students are autonomous. Teacher A suggested that self-assessment may lead to self-access. As indicated by teacher B, self-assessment is useful for detecting students' strengths and weaknesses. Teacher C related self-assessment to autonomy.
8. *Teacher autonomy and its types*: teacher autonomy could influence students' autonomy positively. More interestingly, two types of autonomy exist: collaborative teacher autonomy and individual teacher autonomy. All the interviewees admitted that they are autonomous teachers. Teacher A confessed that she is a collaborative autonomous teacher. To justify that, she said "I take my own decisions about what to teach to my students and how to teach that. I also rely on myself in designing lessons and choosing the appropriate instructional strategies in my classroom". However, Teacher B and C declared that their autonomy is individual. To justify that, teacher B

declared "...since I design my own syllabus and lectures without others' help".

While teacher C maintained that she designs her own tests.

9. *The student as-a-researcher*: conducting research by students especially graduates is very important. All teachers declared that they encourage students' research. Concerning the causes behind that, teacher A explained that "research is considered as an instrument for an effective and a successful learning process. It also helps students to build and improve their knowledge. In addition, it develops their reading, writing and communicative skills". Teacher B confirmed that research provides students with "the opportunity to show their personal contribution as efficient and autonomous researchers".
10. *Students' research quality and plagiarism*: all the respondents perceived students' research quality as average because of plagiarism.
11. *Positive effects of autonomy on students' research*: concerning the positive effects of autonomy on students' research, teacher A claimed that it would lead to critical thinking and effective analytical research. Teacher B asserted that autonomy may result in high- quality research. Also, teacher C stated that autonomy could help students improve their research skills by mastering the necessary research techniques through the use of technology.
12. *Assessing research quality*: all the teachers confirmed that having shared criteria between teachers is important to ensure reliability and equal testing.
13. *Raising students' awareness about academic integrity*: teacher A claimed that she usually do so by "reminding students from time to time of the importance of honesty and ethics in their research". Teacher B indicated that she teaches them research skills to help them preserve academic integrity. Teacher C stated that she gives them short reports and advises them to use information from books and articles.

14. *The anti-plagiarism code*: teacher A argued that the ministry' anti-plagiarism code is sufficient. However, teacher A and B insisted that a code issued by the department of English is better for assuring academic integrity.
15. *Plagiarism detection software*: concerning automatic detection of plagiarism, teacher A declared that she uses it to detect plagiarism. However, both teacher B and teacher C admitted that they do not use it. The former justified her answer by explaining that connection to the Internet is low whereas the latter explained that she follows her inner sense. This implies that it is easy for her to detect plagiarized texts!
16. *Punishment as a deterrence strategy*: all teachers asserted that they use punishment as a deterrence strategy. However, their ways of punishment are different. The first teacher gave plagiarists the worst mark while the second and third teacher assigned them lower marks.
17. *Ways of training students to conduct research*: different ways are suggested by teachers. Teacher A preferred free choice of topics by students and self-decision while teacher B preferred metacognitive strategy training, and teacher C selected short research papers and mastering research steps.

5.5. Summary and Significance of the Results from the Experimental and Field Investigation

Data collected from the students' questionnaire and the teachers' interview indicated that students' research quality is average. Some students declared that their research quality is good and only 38.83% of the students admitted that they copy-paste homework. However, the plagiarism test that was administered before the experiment proved that all the students committed plagiarism in their homework. 70.88% of students admitted unconsciously that they are plagiarists since only 29.12% of the students stated that they do not buy online papers from paper mills because they respect

research ethics. Furthermore, nearly half of the students (48.54%) declared that plagiarism is unintentional while the other half (51.45%) believed that it is deliberate. Data from the questionnaire revealed that the majority of the participants (81.55%) in this study declared that they are autonomous to a limited extent since they possess autonomy qualities from average to very high degree. They depend on collaborative autonomy (74.75%) either with peers or with the teacher. They lack self-guidance as the highest degree of autonomy. More than half of the students (59.22%) preferred autonomy out-of-the classroom, which is as important as autonomy in the classroom. This is a contradiction to what precedes since teacher-guided students would face difficulties when learning alone beyond the classroom. Although interviewed teachers proclaimed that they are autonomous, only half of the students (50.47%) were aware of the importance of teacher autonomy in increasing their autonomy. Another contradictory fact is that although students admitted that they prefer collaborative autonomy and collaboration with the teacher (interdependence) to achieve autonomy, only 5.82% of them opted for “collaborator” as the most effective role of the teacher to develop the students’ autonomy. In addition, both teachers and students stressed the importance of self-assessment as an effective factor for developing autonomy.

The majority of the students declared that they plagiarize mainly due to the Internet and digital sources (93.19%), laziness (83.48), low academic self-esteem (70.87%), and limited knowledge of citation and paraphrasing (68.92%). Additionally, 67.96% of the students asserted that sanctioning is necessary to deter plagiarism; however, only 53.39% of them maintained that their teachers had punished plagiarists. The most recurrent penalty was ‘verbal criticism and asking students to re-do the homework’ as well as ‘giving them a zero’. Sometimes, students were given a lower mark as the only penalty. Similarly, data from the teachers’ interview pointed out

teachers' use of lower marks as punishment. Unfortunately, 'disciplinary councils' and 'exclusion from the module' are not applied by teachers in the Algerian universities as a reaction to plagiarism; they are applied solely in case of cheating. Additionally, 100% of the students declared that they do not know the anti-plagiarism code number 933 that was issued by the Ministry of Higher Education. Two teachers advocated the enactment of an additional code by the department of English to ensure academic integrity.

Concerning automatic/electronic detection of plagiarism, 68.93% of the students claimed that not all teachers use electronic software to detect plagiarism; this was confirmed by two teachers out of three in the interview. More importantly, 89.32% of the students were proponents of the idea that autonomy may lead to high research quality. As ranked by the students, the following factors are the best ways of achieving high research quality through autonomy: *Rank 1*: self-assessment of one's research; *Rank 2*: practice of citation styles; *Rank 3*: independent search for information and practice of academic writing techniques; *Rank 4*: reading about research ethics.

Regarding the best strategy teachers have to follow to improve the students' research quality, the participants ranked the different factors as follows: *Rank 1*: sanctioning plagiarists; *Rank 2*: setting an ethical code for each department; *rank 3*: teaching them writing techniques and rules and providing feedback; *rank 4*: teaching them research strategies and paraphrasing/citation enhanced by practice; *rank 5*: raising their autonomy by encouraging them to work independently; *rank 6*: teaching them grammar and lexis and correcting their grammatical and lexical errors.

It is observed from the data elicited by the students' questionnaire as well as the teachers' interview that students' research quality was average because of their average autonomy. Simultaneously, 89.32% of the students confirmed that autonomy could lead to high research quality. Since quantitative data from the questionnaires could be

used to test a hypothesis (Hankin et al., 2003, p. 120), we confirm the second hypothesis that autonomous learning could lead to good research quality and reject the alternative hypothesis that autonomous research has nothing to do with good research quality. Concerning the first hypothesis which stipulated that training students to use research techniques (citation, paraphrasing, quoting, and referencing) and sanctioning plagiarists may lead to good research quality, students were exposed to training and extensive practice. They were punished for plagiarism during the pre-test through verbal criticism, lower marks, and giving them zero. Their awareness about independent research was raised through the RSDF (the Research Skill Development Framework; see Appendix E). Contrary to the results of the plagiarism test before the experiment which indicated that all students plagiarized, 55.55% of the students in the experimental group and 52% in group three (which received the treatment) did not plagiarize others' works. This implies that the training was beneficial for many students. The results of the experiment are summarized in the following table:

Table 5.94

Summary of Results from the Experimental Study

	<i>Group 1 (exp)</i>	<i>Group 2 (control)</i>	<i>Difference between Means/SD</i>	<i>Group 3</i>	<i>Group 4</i>	<i>Difference between Means</i>
<i>Mean of pre-test scores</i>	2.03	1.70	0.33	/	/	/
<i>Mean of post-test scores</i>	3.07	1.51	1.56	2.72	1.44	1.28
<i>Standard Deviation of post-test scores</i>	1.59	0.88	0.71	1.59	0.96	0.63
<i>T-Test</i>	$t = 3.54, F = 56, t > \text{critical value: } 1.673$			$t = 1.91, F = 50, t > \text{critical value: } 1.676$		

As the Solomon four-group design was followed in the experimental study, four groups were included in the current research. The aim of the two additional control groups (group three and group four) was to eliminate the effect of the pre-test on the post-test results. By counting the t-test of the mean between the first group

(experimental) and the second group on the one hand, and the third group (which received the experiment) and the fourth group on the other hand, we found that the value of $t=3.54$ and $t=1.91$ respectively since $3.54>1.673$ and $1.91>1.676$. Consequently, the results are statistically significant and the first null hypothesis is rejected. Hence, we confirm the first hypothesis that training students to conduct research through extensive practice of research techniques as well as sanctioning plagiarists could lead to plagiarism avoidance and high-quality research.

Conclusion

The aim of this study was to test two hypotheses. The first hypothesis stipulated that training students to use research techniques including citation, paraphrasing, quoting, and referencing as well as plagiarists' sanctioning could lead to high research quality; whereas, the second hypothesis suggested that autonomous learning could lead to the improvement of students' research quality. To test the first hypothesis, an experimental study was conducted following the Solomon four-group design. A plagiarism test as well as an assessment of the students' written assignments using the Generic Rubric preceded the experiment. Both the pre-test and the plagiarism test revealed the students' bad research quality mainly because of plagiarism since all the students plagiarized their assignments and were sanctioned by getting zero and lower marks. Statistics from the post-test results, the T-test and the standard deviation confirmed the first hypothesis H_1 that training students to use research techniques may lead to high research quality. Thus, the null hypothesis H_{1-0} was rejected. The plagiarism test that was administered after the experiment showed that 55.55% of the students in the experimental group and 52% of them in group three (that received the treatment) did not plagiarize others' works.

To test the second hypothesis that autonomy may improve research quality, quantitative data from the students' questionnaire were used. One hundred and three students (103) were enrolled in the study. The results indicated that the students' average research quality is due to their average autonomy. Furthermore, 89, 32% of the informants argued that autonomy could lead to the achievement of high research quality. The same results were reached through the use of the teachers' interview. Thus, we confirmed the second hypothesis H_2 and rejected the null hypothesis H_{2-0} .

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Chapter Six

Pedagogical Implications

“To learn is easy; to put into practice is hard”

(Cohen et al., 2000, p. 395)

Introduction

The aim behind the current research is looking for effective techniques to fight plagiarism in the Department of English at the university of 8 Mai 1945, Guelma by providing teachers with *practical pedagogical implications/suggestions* inspired from this work. Accordingly, the first title ‘*Deterring Plagiarism in the Algerian Institutions*’ highlights the phenomenon of plagiarism and provides practical solutions to the problem. The second title ‘*promoting Learners’ Autonomy and Active Learning*’ is an attempt to make Algerian learners more independent and self-reliant as an effective way to raise their English proficiency and mitigate possible academic dishonest written productions. More importantly, the third title represents “*A Checklist for Students’ Self-assessment of their Academic Writing*” which acts as a guide for students towards assessing academic writing. The fourth title is “*A Checklist for Students’ Self-assessment of their Autonomy*”. It could help students guide themselves and check the level of their autonomy. The fifth title provides teachers with ‘*Sample Activities in Research Methodology*’. The sixth/last title ‘*Planning Research Methodology Lessons*’ draws teachers’ attention towards planning research methodology lessons.

Moreover, both teachers’ and students’ roles are clarified to constitute an effective Algerian classroom environment based mainly on teacher-learner collaboration. Finally, ‘*Limitations of the Study*’ are displayed to explain the constraints faced during the different phases of research, and to discuss the challenges related to the topic of the current research.

6.1. Practical Pedagogical Implications

This experimental study was conducted to provide some practical implications and inspirational guidelines related to the issue of integrity and autonomy in the context of foreign language learning. Due to the wide spread of academic dishonesty which has spoiled academic writing in Algeria, action is needed by teachers as quickly as possible to deter plagiarism and academic dishonesty in the digital age.

6.1.1. Deterring Plagiarism in the University of 8 Mai 1945, Guelma (Algeria)

From this study, two types of plagiarism are indicated: traditional plagiarism and Internet plagiarism. The former is to plagiarize from printed sources, to present an old work as new, or to copy a classmate's work; however, the latter is more complicated than the former. This is due to the fact that digital materials are dominating the Internet. The students could have access to millions of sources by one mouse-click and in the blink of an eye. Besides, students could mix between the two by using both printed and non-printed sources. Apparently, academic dishonesty has increased. Hence, action is needed to stop academic dishonesty and restore integrity.

In Davis et al.'s words, preserving academic integrity is 'institutionalizing integrity' which could be implemented through "moral development" (Davis et al., 2009, pp. 167-168). The Algerian teacher should raise learners' awareness of the importance of ethics and ethical conduct of academic research. Many students in the universities of Algeria do not respect the norms of intellectual property. They underestimate the problem of plagiarism by arguing that it is a common problem which has started from pre-levels.

Both teachers and students need to know about the anti-plagiarism code which was enacted in July, 28th, 2016 by the Ministry of Higher Education. Teachers should check it and raise their students' awareness about the negative effects of plagiarism on

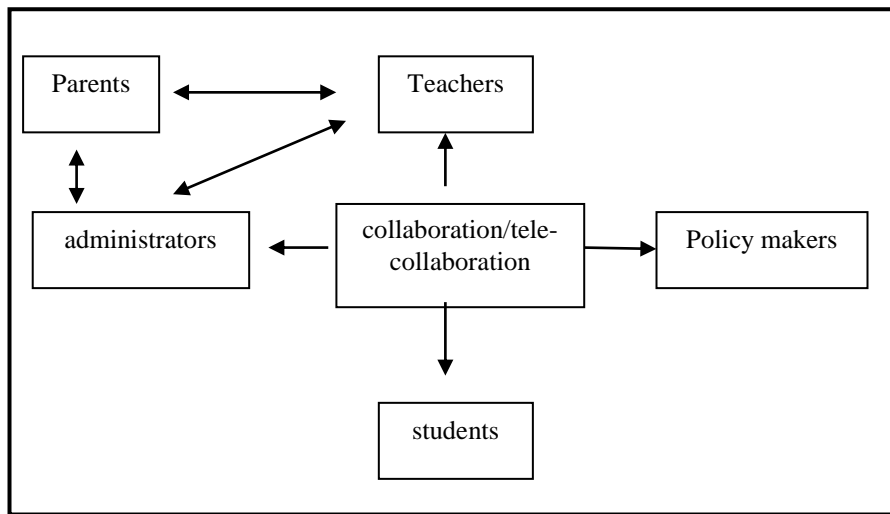
their research quality and their future professional career. Accordingly, explaining the code for students could work in parallel with punishment to stop the phenomenon of academic dishonesty. More interestingly, each department ought to have its standards of ethical behaviour. It should write its *honour code*, including the definition of plagiarism and the intended measures and penalties to fight it. It is also better to publish the electronic version of each department on the website of the university. After that, students should be ready for severe sanctioning following the measures which are applied in some foreign universities like ‘exclusion from the module’ and ‘disciplinary councils’.

As advised by Davis et al., to establish integrity we need “standards, professionalism, professionals” (Davis et al., 2009, p. 183). Professionalism is necessary because some novice teachers may hesitate in front of this phenomenon. This entails the need for cooperation between teachers by maintaining communication between novice teachers and experts. The latter know the standards of integrity and plagiarism avoidance. Eventually, it is not easy to overcome the problem of plagiarism; thus, collaboration is needed in higher education between:

1. Teachers and students.
2. Teachers and their colleagues.
3. Teachers and administrators.
4. Administrators and policy makers.

Plagiarism could be ended when the teacher cooperates with students either through face-to-face collaboration which is considered as the traditional way of providing guidance and advice, or by tele-collaboration through online communication using emails and the social media. Tele-collaboration could also be implemented using online counselling. This is illustrated in the following figure:

Figure 6.1. Face-to-Face versus Tele-collaboration in Fighting Plagiarism



What teachers should adopt as a method of teaching is ‘*the Transformative Approach to Teaching and Plagiarism*’. Under this approach students and teachers as well as administrators share the responsibility of determining the nature of plagiarism. Besides, students should be asked if their plagiarism is deliberate. This implies that some students plagiarize unintentionally because they do not know research techniques and due to their ‘lack of practice’. Hence, teachers are ‘facilitators’ during the stages of ‘academic writing’ (Sutherland-Smith, 2008, p. 152). If teachers in the department of English use this approach, they would control the phenomenon because of their flexibility in dealing with the issue of plagiarism by blaming one’s own process of teaching which ignores academic dishonesty and students’ need for practice either in research skills and techniques or in academic writing. Then, we could blame the student for not applying the ethical rules.

Furthermore, teachers should have great expectations about students by trying continuously to motivate them and to appreciate their level because ‘blaming the students’ beliefs’ could affect negatively the learning environment (Norton, 2009, p. 8). Within this scope, the teacher has to guide the students towards the increase of intrinsic

and autonomous motivation. More importantly, autonomous writing and self-assessment could help the student improve his/her academic writing in the foreign language. Once they become good writers who have a complete knowledge of coherence, cohesion, grammar and vocabulary, their self-esteem would raise. Consequently, they would not feel obliged to plagiarize because they think they could not express it better.

Syllabus designers have to create a new module in Algerian universities namely 'research ethics' because students do not know the value of ethical behaviour. In addition, some teachers do not raise their awareness of the importance of ethics in research conduct. Consequently, students may underestimate many ethical values like confidentiality and getting informed consent from the participants. So, students should be conscious of all the moral values that should be taken into consideration when conducting research. The following is a suggested content for the module of 'research ethics' for second-year students:

1. History and definition of research ethics and morality.
2. Deontology.
3. History and definition of academic integrity.
4. Principles of ethical research.
5. Ethics of academic writing: plagiarism avoidance.
6. Honour Codes and anti-plagiarism pledges.
7. Research ethics committees.
8. Confidentiality and privacy in online surveys.
9. Violation of research ethics: an example about experiments.
10. Originality.
11. Ethics in supervision and counselling.

12. Publication ethics.

13. Copyrights: history and definition.

Academic writing is based on effective writing skills and integrity. The students should give importance to enhancing their academic writing especially in the case of research reports and research papers. The following guidelines may be followed by the student to promote academic writing and avoid plagiarism:

- Following teacher as well as student assessment of homework and research reports.
- Practice of citation styles concerning in-text citation and referencing.
- Frequent practice of summarizing techniques.
- Practice of paraphrasing.
- Asking for feedback from the teacher and classmates (peer feedback).
- Making self-assessment and seeking advice whenever needed by the teacher through collaboration.
- Technology is useful through the use of tele-collaboration, counselling and electronic feedback.
- Reading research articles and reports by experts in academic research.
- Using e-portfolios to check one's progress and knowledge of research skills and techniques.
- Being aware of the importance of academic integrity in writing.
- Respecting research ethics and moral values.
- Partnership with the teacher in conducting research.
- Enhancing one's self-esteem and self-control through raising self-confidence and lowering anxiety. This could be achieved by perceiving one's self as an active participant in the learning process.

- Positive attitudes towards one's style and capacities could raise motivation and willingness to write in the target language.
- Enjoying writing assignment as an end in itself not as a tool to get good marks.
- Engagement in writing could result in a well-structured piece of writing.
- Creativity is sought to promote the writing skill.
- Focus is on both the process and the product of writing.
- Working in groups to increase writing proficiency through interaction and discussion.

To promote academic integrity, teachers have to avoid heavy workloads and excessive use of the homework because this could lead to plagiarism. What is interesting is quality not quantity. Similarly, syllabus designers have to focus on the main activities of language development in relation to the four skills: writing, speaking, reading, and listening. This entails to give the student the opportunity to search independently for the details either in printed or digital sources. Hence, instruction in the classroom should be limited to the basic elements of the language so that the student builds his/her own knowledge of its other aspects autonomously either in formal or informal settings.

Originality is very appreciated in academic research. Teachers have to encourage students to conduct research in relation to original topics which were not tackled before or at least topics that could be dealt with from a new perspective or using a different methodology. Originality ensures discovery of new information by researchers through tackling issues that were not dealt with before. It may also lead to validation of existing knowledge through hypothesis-testing. These are some guidelines that help students assure that the topic is original:

- The variables which are related to the topic exist in the literature but they appear separately. Hence, the relationship between the variables is new. Here, a new theme is

introduced by the researcher which shows his/her own contribution to the field of inquiry.

-The topic exists in the literature but much remains to be said because new facts have recently emerged.

-The topic exists in the literature. However, it needs to be tackled from a different perspective/method or in a different context.

-Research is implemented to test an existing tool/scale.

Advice that could be given to students to avoid plagiarism and ensure academic integrity is introduced in the following points:

-Research is not introducing new idea/results without a correct methodology.

-Each research topic is tackled following a specific methodology by selecting the right method and tool(s) which suit the research question and hypothesis.

-Honesty is not using quotations extensively; it is to use more paraphrases than quotations.

-Quotations are used when the author's words express meaning better than our words.

-Paraphrasing does not mean changing only some words, stealing even a word is considered as plagiarism.

-Paraphrasing without referencing is plagiarism.

-Plagiarism is not related only to words, that is to say the form/the structure; it is also related to meaning. Stealing an idea and expressing it in your own words falls under academic dishonesty.

-Using past works as new productions is plagiarism, the same for using your previous expressions and sentences (self-plagiarism).

-Submitting the same homework as your friend in your group or another group is plagiarism even if your friend is taught by another teacher; this is called 'collusion'.

6.1.2. Promoting Learners' Autonomy and Active Learning

Teachers have to adopt new approaches of teaching which are learner-centred by promoting active learning and encouraging self-control. Some *Guidelines for Promoting Autonomous Learning* are:

- Encouraging students to select lessons' content through the negotiated syllabus.
- Engaging students' through the use of Information and Communication Technologies (ICTs).
- Involving students in setting the objectives of each lesson.
- Training students to use their metacognitive strategies and to think about their own learning.
- Guiding students towards self-assessment and self-evaluation.
- Relying on peers' evaluation of both individual and group work.
- Teaching note-taking techniques using technology.
- Designing homework that enhances autonomy for example summarizing articles or stories.
- Making oral presentations including citation and referencing.
- Teaching time-management skills.
- Training students to act independently through practice based on raising their awareness of the benefits of autonomous learning.
- Conducting research using both traditional sources (the library) and online sources.
- Raising students' self-esteem and self-confidence by practice aiming at increasing their writing proficiency.
- Encouraging students' self-control and self-reflection about their own understanding and the obstacles they face in learning.

Although Virtual Learning Environments (VLEs) are not new in the field of learning, they are considered as traditional abroad (Lewis, 2009, p. 87). However, learners at the department of English at the University of 8 Mai 1945 in Guelma are not aware of their use and benefits due to their complicated nature. Some teachers too are not motivated to use them. They prefer social networks like *Facebook* as a tool for informing students about lessons, homework and tests' schedules. Although we could have access to some teachers' courses on Moodle, students do not check them. Hence, both teachers and students' attention need to be directed towards the effective use of VLEs. Among the recent trends in educational technology, there is a move towards Personal Learning Environments (PLEs) instead of VLEs. More interestingly, Self-Access Centres are not used in the department of English, University of 8 Mai 1945, Guelma. It would be beneficial if students of English had such a centre where they could find digital materials about language.

Promoting active learning in the Algerian colleges necessitates designing *a module about autonomy*, which is the heart of learning. For example in 2001, the aims of *the module on learner autonomy* in "The MA in English Language Teaching" at the University of Nottingham are:

- to increase participants' critical awareness and understanding of the theories and current practice relating to the concept of learner autonomy;
- to enable them to apply this awareness to their own development on the course and beyond;
- to develop the knowledge and skills to help their own learners develop the capacity and willingness to take on more responsibility for their own learning and become more efficient language learners (as cited in Sinclair, 2008, p. 258).

As indicated in the previous quotation, what is important is to raise the students' awareness about autonomy and learner-centeredness so that the students will be responsible for their own learning either in or outside the classroom. Implementing a similar module in Algeria could help both teachers and students. Concerning teachers, it would facilitate the task of teaching when the student is more active and independent either in learning or in the process of self-assessment. Hence, the teacher would become just a guide and facilitator. Concerning students, learning could become easier by designing the path of one's own learning. However, when they face setbacks, the latter could be overcome through teacher-learner collaboration.

The elements of *the module about learner autonomy* are:

- Sharing of the participants' (including lecturer's) understanding and experience of learner autonomy;
- Evaluation of the participants' own knowledge and understanding of autonomy and identification of questions and issues to be covered on the module;
- Collaborative negotiation of module content: from week 2 & in week 5
- Participant-directed research and sharing of information;
- Participant-led sessions;
- Individual negotiation of assessment topics;
- Participant control of tutorials;
- Ongoing participant evaluation of course content;
- Participant feedback on teaching (SETs);
- Participant feedback on the module (SEMs) (as cited in Sinclair, 2008, p. 249).

It is observed that the module makes the student involved in learning through evaluation of the content and lesson presentation. So, it allocates more responsibility to the student who is viewed as a researcher. Besides, the module includes ‘a mini-research study’ which focuses on learners’ self-evaluation of their ‘levels of autonomy’. So, self-evaluation is necessary within autonomous learning because no one knows the learner’s level better than him/her. Also, self-evaluation and self-reflection about one’s degree of independence is highly valuable in developing self-reflexivity as well as active learning. Teachers have to teach students self-reflection. To illustrate, this could be done through self-accomplishment of a questionnaire in which learners assess their own learning (Harmer, 2001, p. 336). The following is an example:

Figure 6.2. Personal Language Reflection

How difficult do you think each of these language areas are?		
Give a score from 0 (= very easy) to 5 (= very difficult). Say why you have given each score.		
Language area	Score (0 - 5)	Comment
Grammar		
Words and phrases		
Pronunciation		
Listening		
Reading		
Writing		
Speaking		

Note. Adapted from: Harmer, 2001, p. 336

Autonomy-supportive teachers have to help students reach autonomy and self-reliance gradually. According to Zimmerman et al. (1996, p. 16), teachers have to advise their students to make self-monitoring and to set their own goals by selecting suitable strategies and promoting self-efficacy. He has further explained that what is more important is ‘learning methods’ not ‘learning outcomes’. Moreover, self-directed learning requires the development of three types of skills: intrapersonal, interpersonal, and process skills (Delport & Squire, 2010, p. 191). Intrapersonal skills are concerned with internal development by overcoming anxiety and promoting self-confidence and

self-evaluation. Interpersonal skills are related to PBL (Problem-Based Learning), they include: seeking help whenever needed not only from teachers but also from peers and other experts, correct use of information sources, and collaboration with peers. Process skills encompass “cognitive, information processing, and organizational skills” (Delport & Squire, 2010, pp. 192-193). They could be enhanced through ‘learning contracts’ that denote ‘negotiated’ plans where students list their ‘needs’, ‘methods’, and ‘resources’ as well as ‘criteria’ of evaluation concerning the achievement of these plans. Furthermore, process skills might be promoted through the effective use of “organizational and time management strategies” and information ‘resources’ such as digital materials (Delport & Squire, 2010, pp. 193-194). They also include ‘analysis and synthesis skills’, ‘web-based learning’ and self-reflection through the utilization of a ‘professional development portfolio’ which may help the student assess their own progress (Delport & Squire, 2010, pp. 195-196). In summary, the student starts to be autonomous from the inside; then, s/he develops autonomy from the outside by collaboration with teachers, peers and experts in the learning context. Autonomy could be empowered with technology through the use of the Internet and electronic portfolios.

Students have to be trained to manage their time since time is an important factor in promoting autonomy. Lack of time management skills may result in bad information processing and recall. It could lead to plagiarized assignments, cheating, and failure. Zimmerman et al. (1996, p. 44) suggested that students have to be trained to manage their own time through “planning time management activities” and ‘implementation’ taking into consideration self-efficacy and assignments for five weeks. Then, ‘follow-up activities’ may be added to check the efficacy of students’ time-management skills.

Students' roles in developing autonomy should be taken into consideration since the student could take responsibility of his/her own learning especially through the help of technology. Computer Supported Collaborative Learning (CSCL) could be very influential in fostering autonomy through the Internet. Also, having access to digital materials through the computer may enable the student to process a wide range of information and to compare its sources. Distance learning is very influential in autonomy enhancement. Policy-makers have to start its implementation in the Algerian universities. They have to collaborate with teachers in designing distance learning programmes which have to be initiated in the near future. However, Web-based instruction has also participated in the 'commercialization' of learning through 'technologies' (Davis et al, 2009, p. 18). This implies that learning through the Internet has its potential drawbacks which have to be assessed by both teachers and students.

Recently, scholars are moving from autonomy to 'self-guided Learning' (SGL) instead of teachers' guidance or 'teacher-directed learning' (Davis, 2013, p. 86). This implies that students are the guides of their own learning. They have to be completely responsible for their progress and evaluation. Brydges et al. further introduced *Directed Self-Guided Learning* as a cooperative method where teachers support learners' self-guidance through 'scaffolding' (2010, as cited in Davis, 2013, p. 88). Teachers have to raise their students' awareness about self-guidance in learning including: planning, content selection, goals-setting including short-term objectives and long term objectives, self-assessment, self-reflection, informal learning including online language activities to develop the four skills...etc. in this respect, the role of the teacher is a counsellor and a facilitator whenever students face setbacks and problems in learning. Harvey and Chickie-Wolfe (2007, pp. 68-70) provided a checklist of classroom qualities that foster independent learning (see *Appendix U*).

Furthermore, Algerian teachers have to be aware of '*learner resourcefulness*' which is derived from Rosenbaum's (1989) 'nonautomatic self-control theory'. It studies one's behaviour when s/he is under stress. Basically, one's reaction is 'self-control' through 'escaping the situation to one more comfortable' (as cited in Ponton & Rhea, 2006, p. 44). The concept of learner resourcefulness was related to autonomy through the work of Carr (1999) who considers it as "learners' capacity to anticipate future rewards of present learning, prioritize learning over non-learning activities, select learning over nonlearning activities, and resolve problems relative to the selected activity" (as cited in Ponton & Rhea, 2006, p. 44). What is deduced from this is that the students make decisions about their own learning through problem-based learning and choosing suitable activities.

As indicated in the theoretical chapters, promoting learners' autonomy could be implemented through four approaches:

- Problem-based learning (PBL)
- Project-based learning (P^RBL)
- Inquiry-based learning (IBL)
- Inquiry Project-based learning (IPBL)

The best approach is IPBL which could work in parallel with Technology-based Learning (TBL) to promote students' autonomous learning through a Technological Inquiry Project-based learning (TIPBL). The following are some guidelines for students:

- Doing homework in the form of group-work projects which are purposeful and need to be achieved by solving problems.
- Self-reliance and critical thinking towards pedagogical problems that need to be solved by formulating open and closed questions and hypotheses.

- Data collection through the use of corroboration by relying on triangulation.
- Reliance on both printed and digital materials which are reliable.
- Interaction with the group to evaluate data and interpret it.
- Effective planning through mind-mapping software and effective use of technology for information processing, retention, and recall.
- Organization of one's timetable through effective time management skills.
- Asking for teachers' collaboration whenever obstacles are faced.
- Self-assessment of projects is needed to make modifications before handing them to the teacher.

Teacher autonomy could be very effective in promoting students' autonomy because we cannot make them autonomous when we ourselves are not. So, one should start by enhancing his/her autonomy through self-reflection, self-regulation, self-monitoring, and self-reliance. Self-reliance may be manifested through teachers' design of the syllabus that suits students' needs especially through negotiating the syllabus with students, which could raise their engagement/involvement, competitiveness and motivation. The teacher should make a continuous evaluation of his/her own teaching and learning process rather than the outcomes because the latter is based on the former. The students' understanding should always be tested since it proves that learning has occurred.

Whenever the teacher faces obstacles and problems related to learning, s/he has to reflect first on his/her own teaching through action research which is very influential in evaluating the teaching methods and techniques by observing the problem and implementing action which denotes change. Collaborative action research could yield better results than working individually. This is due to the fact that most problems are common in all the classrooms.

6.1.3. A Checklist for Students' Self-assessment of their Academic Writing

The student could make use of checklists to assess his/her performance in academic writing; we designed the following checklist to help students assess their own academic writing because self-assessment plays a significant role in enhancing students' independent learning.

Table 6.1

A checklist for Students' Self-assessment of their Academic Writing

Feature	yes	no
1. I check my own progress in grammar using writing activities.		
2. I check for plagiarism using online detection Software to ensure that my paraphrasing is effective.		
3. I read topics related to my topic to ensure originality.		
4. I use the dictionary to check the possible interpretations of a word.		
5. I correct my own mistakes and errors and I ask for teachers' guidance when there are obstacles.		
6. I rely on online tasks and activities to increase my autonomy in writing.		
7. I read about research ethics to respect them when writing.		
8. I update my information concerning citation styles by following the last version.		
9. I study vocabulary by learning lexical chunks not words in isolation.		
10. I try to use original sources rather than secondary sources of information.		
11. I use rubrics to make self-assessment of my own writing.		
12. I focus on form/structure and meaning at the same time.		
13. I follow the process approach of writing.		
14. I try to make my writing effective by ensuring cohesion and coherence.		
15. I organize my ideas through planning.		
16. I try to make my writing self-guided rather than teacher-guided.		

6.1.4. A Checklist for Students' Self-assessment of their Autonomy

Autonomous learning has many aspects that prove it. We designed the following checklist that tackles the most important features of autonomous learning. It could be used by students themselves to assess their autonomy. Therefore, they could focus on the elements that may increase their autonomy in learning:

Table 6.2

A Checklist for Students' Self-assessment of their Autonomy

Feature	Yes	No
1. I am devoted to organization.		
2. I manage my own learning.		
3. I have intrinsic/ autonomous motivation.		
4. I feel engaged in learning activities.		
5. I use my metacognitive strategies.		
6. I regulate my own learning.		
7. I monitor my own learning.		
8. I devote time and effort to learn new information or to finish my assignments.		
9. I control my own learning.		
10. I feel responsible for my own learning.		
11. I specify goals for my own learning.		
12. I manage my time effectively.		
13. I have passion for learning.		
14. I plan my learning activities independently.		
15. I make self-assessment.		
16. I make self-evaluation (I judge my level).		
17. I reflect on my own learning/ level.		
18. I have a high self-esteem.		
19. I am self-confident.		
20. I rely on self-guidance not teachers' guidance.		
21. I am able to engage in problem-based learning to look for solutions.		
22. I rely on technology to gain new information.		
23. I am competitive.		
24. I am successful in leadership positions.		

As indicated in the checklist of assessing autonomy, the student should be committed to organization since organization is a core element in autonomous learning. Besides, the student should manage his/her own learning by being self-directed and promoting self-reliance. The student should also have intrinsic or 'autonomous motivation'. In addition, engagement is very important. An engaged student feels involved in learning activities and shows more interaction and motivation than non-engaged ones. Here, the role of the teacher is to make the student more engaged by trying to involve him/her as much as possible by varying the learning tasks and integrating information and communication technologies.

Moreover, metacognition ought to be considered by both the teacher and the student as the basic element of learning because the student is responsible for his own

learning. If no feeling of responsibility exists on the part of the student, s/he could not improve his/her level no matter what the teacher does. Hence, training the student to use his/her metacognitive strategies is of a paramount efficacy. More importantly, self-regulation is needed to enhance one's own capacities and understanding of one's own progress. Self-monitoring may be influential too in directing the student's development of his/her own career through self-observation and self-supervision.

Furthermore, devotion is appreciated in learning new information or making assignments because it pushes the student towards achievement by giving him/her a boost of energy and positive attitudes. Apparently, self-control and responsibility are key factors that may help the student eager to enhance his/her abilities in a learner-centred environment where the teacher is merely a facilitator. What is more, goal specification is a useful step in planning one's way towards success. The latter could be reached through effective time management when the student appreciates time and knows what to achieve and when to achieve it.

Usually, students who are successful are those who have a strong passion for learning and show self-reliance and commitment. Autonomy is promoted when a student plans his/her own activities and assesses his/her own achievement to look for shortcomings that need to be overcome by looking for practical solutions. In this respect, assessment is not enough; evaluation by making judgements is highly advocated to decide about the level and things to be done in order to improve it. Criticizing one's level is related to self-reflection which is a revision of what has been done and looking forward to what should be done. The ability to judge one's level emerges from a high self-esteem. Looking forward to do something and feeling capable of doing it are the results of positive thinking and appreciation of students' personality.

Within this scope, self-esteem is enforced by high self-confidence. The latter is apparent from students' behaviour, self-reliance and risk-taking.

An autonomous student is the one who guides himself/herself towards achievement and success. Self-guidance could be more influential than teachers' guidance because the student knows more about the causes of his/her failure and weaknesses. S/he could direct his/her learning and fill in the gaps whenever encountered by difficulties and problems. Problem-based learning (PBL) occurs when the student looks for solutions by considering language learning difficulties as problems that need to be solved.

To reach the highest degree of effectiveness in learning, the student should be competitive with his/her peers. A competitive student makes use of both cognitive and metacognitive strategies. S/he is more motivated to achieve good grades and invest his/her time in information processing and self-guided activities through the use of technology and self-assessment. Hence, autonomous students should benefit from technology by relying on digital materials and self-access. Also, they have to look for new information from different sources.

Autonomous students are good in leadership positions. They are independent leaders who could direct their classmates towards positive interaction especially in team work. They consider the teacher as a source of information in the classroom whose support is endless. Thus, effective teaching is based on encouraging students' leadership through oral presentations, discussions, projects, and competition between groups during class work or out-of-class activities. The latter could be achieved by identifying a leader for each group who is selected by the group members on the basis of his/her level of independent learning. Peers' selection is encouraged since they know each other more than the teacher concerning autonomy outside the classroom. In

addition, the teacher could help the student outside the classroom through electronic feedback and tele-collaboration. The teachers' job exceeds the limits of the workplace; they are supposed to collaborate with students online by answering their enquiries and encouraging them to contact them whenever they need help concerning the subject matter.

6.1.5. Sample Activities in Research Methodology

Training students to conduct research is very influential in improving their research skills. The following are examples of some activities which may be used in the module of research methodology. The general aim behind these activities is developing the students' independent writing and research skills:

Activity One: Problem Identification

The aim of this activity is to identify any problem related to learning English and write a description of the problem. Students are given twenty minutes to work in pairs and look for some research problems. Then, they describe the problem in a paragraph-form. The teacher helps students to correct their own work.

Activity Two: Writing a Research Question

The aim behind this activity is to make students able to formulate a research question related to a problematic situation. Students work individually so that the teacher could check their ability to formulate questions as well as their grammatical competence. Time allocated to this activity is five (5) minutes.

Activity Three: Writing the research hypothesis and the null hypothesis

This activity lasts for fifteen minutes. It aims at making students able to formulate the research hypothesis and the null hypothesis. Students are given an example of a research hypothesis to recall its form. Then, they are asked to be creative by formulating a research hypothesis from two variables.

Activity Four: Writing a Statement of the Problem

The aim of this activity is to prepare the students for writing a research proposal. Students are given the elements of the statement of the problem including the cause (independent variable), the population, the effect (the dependent variable), the possible solution, and the improvement... Then, they are asked to specify a problem and write a statement of the problem collaboratively for one hour. Feedback is given by the teacher at the end of the session. Any required corrections are sent in an electronic version to the teacher who could provide electronic feedback later.

Activity Five: Testing Causation in Experimentation

The current activity informs students about the effective choice of variables when conducting an experiment. The students should understand the two conditions of experimentation: measurement and feasibility/ practicality. In this respect, they need to know that the independent variable should be manipulated in a feasible manner that ensures change in the dependent variable. The latter, in turn, has to be measurable. To reach these aims, the students have to check the independent variable for feasibility. Then, they have to check whether the dependent variable is measurable or not. After that, the students have to write what they are supposed to do in the experiment, the pre-test and the post-test. At the end, they would comprehend how to differentiate between measurable and immeasurable variables. Besides, they could make decisions about what to test before and after the experiment.

Activity Six: Choice of a Research Method

This activity trains students to choose the most suitable research method. Students are given the assumed cause (the independent variable) and the assumed effect (dependent variable). After that, they are asked to choose the most suitable method to

conduct research. The activity lasts for thirty minutes of team work. At the end, it is followed by peers' correction and teachers' intervention when needed.

6.1.6. Planning Research Methodology Lessons

Planning lessons effectively may reflect the teachers' professionalism, autonomy, and eagerness to motivate the students and make them independent researchers. The following is a sample lesson plan for teaching research methodology:

Table 6.3

Lesson Plan Sample

Lesson title: The Experimental Method			
College	University of 8 Mai, 1945 Guelma (Algeria).		
Department	English		
Level	Second-year		
Semester	One		
Tutor	Full name		
Objective	-to make students understand what is an experiment, the aim of experimentation and its steps.		
Duration	Eighty minutes		
	Lesson content	Timing	Aim
	<p>Warm-up: students are taught what is educational research and what is a problematic issue in teaching/learning.</p> <p>1. Steps of the research process Students are asked about the first steps in the research process:</p> <ol style="list-style-type: none"> 1. problematizing. 2. questioning (open and closed question). 3. formulating the hypothesis (H_1 and H_0). 4. sample selection. 5. choice of the method. 6. choice of the tools and designing the tools. 7. data collection. 8. data analysis and interpretation. 	6 mns	-to know the steps of the research process/design (in general without details).
	<p>2. Definition and aim of an experiment Students are asked to define an experiment. Then, the teacher explains the aim of educational experiment and asks students to provide examples.</p>	12 mns	-to understand what is an experiment in education. -to know the aim behind an experiment which is to test a hypothesis. -to explain what is a hypothesis.
	<p>3. Experimental versus quasi-experimental method</p>	2 mns	-to differentiate between the two in relation to randomization, generalization and representativeness of the sample.

(continued)

(continuation)

4. Conditions for experimentation	10 mns	-to know the two main conditions for experimentation: Feasibility and measurability.
5. Experimental design	15 mns	-to know how to assign the participants to two randomized groups: the experimental and the control group.
6. The pre-test and the post-test	10 mns	-to understand how do we administer a pre-test and a post-test and the aim behind each one.
7. Confirmation/rejection of the hypothesis	5 mns	-to be able to test a hypothesis and understand the results by confirming H_1 and rejecting H_0 ; or rejecting H_1 and confirming H_1 . -to understand the possibility to disconfirm both and generate H_2 where a new variable is responsible for the change.
8. The Solomon four-group design	20 mns	-to understand the aim of the design which is adding two control groups to eliminate practice effects (test-re-test effects).

6.2. Teachers' and Students' Roles

Teachers and students must play complementary roles in a learner-centred classroom to promote autonomous research and academic integrity on the one hand; and to improve undergraduate research quality on the other hand. Students are responsible for their learning of new information and its transformation into knowledge. When they are motivated to study, their interest in the content of the lesson would facilitate involvement and understanding. However, students are guided by the teacher in the initial stages of learning because they would develop self-guidance gradually in more advanced stages.

Teachers play several roles throughout the process of developing learners' autonomy. They are managers, organizers, facilitators, and counsellors (Yan, 2012, p. 560-561). They are organizers and managers of learning activities and games which suits the learning needs. Besides, they are facilitators through providing students with "psycho-social support" which includes motivating them and making them aware of

autonomy (Yan, 2012, p. 560). Within this scope, Algerian teachers of English as a foreign language should be what Reeve and Su (2014, p. 354) called ‘autonomy-supportive teachers’ who have three main characteristics: firstly, they take into consideration ‘students’ perspective’. Secondly, they listen to the ‘students’ thoughts and suggestions’ in the classroom. Thirdly, they follow ‘five instructional behaviours’ as follows:

1. Vitalize inner Motivational resources
2. Provide explanatory rationales
3. Rely on non-controlling, informational language
4. Display patience to allow time for self-Paced learning
5. Acknowledge and accept expressions of negative affect. (Reeve & Su, 2014, pp. 354-356)

As mentioned in the previous quotation, intrinsic motivation should be stirred, rational explanation as well as informal language and patience by the teacher should be stressed. Also, negativity ought not to be prohibited. Furthermore, autonomy supportive teachers facilitate autonomous learning through ‘technical support’ that implies promoting learners’ self-evaluation and planning of their own learning. Also, they raise learners’ motivation to achieve and ‘to learn actively and autonomously’. They also facilitate learning when they provide learners with language input and useful resources. In addition, teachers have to give importance to errors’ correction and to make good choice of learning materials. Moreover, teachers are facilitators through evaluation and assessment of learners’ work.

Little (1999, p. 84) assured that the teachers’ role is the learners’ engagement in the selection of the content and objectives. This necessitates ‘whole-class planning and evaluation’ and collaboration with the learners “to set long-term as well as short-term

goals”. Furthermore, counselling is also needed by providing direction, feedback and advice. In this respect, Yan advised teachers to be counsellors through communication in the learning environment. He advocated that the teacher should be ‘a director’ rather than ‘a dominator’ (2012, p. 561). As pointed out by Allwright and Hanks (2016, p. 46), autonomous learning requires good ‘management skills’ by teachers through ‘inventing a way’ of cooperation with learners. Within this scope, Nicolaides (2008, p. 158) declared that teachers are more responsible than students because they ‘own knowledge’ and ‘experience’. Therefore, they should specify the syllabus, the timing, and ‘evaluation’. As a good manager, the teacher could direct students towards independence through counselling and cooperation based on their experience in the field of teaching.

Concerning the students’ role, Holec (2009, p. 36) considered ‘the ability to become autonomous’ as the “ability to define learning objectives, to select appropriate learning resources, to adopt relevant scenario, to evaluate his progress and to manage his learning programme”. This ability includes both ‘knowledge’ and ‘know-how skills’. The former is related to language “culture and language learning culture” while the latter is based on objectives’ specification, choice of resources, setting of scenarios, evaluation and management. In this respect, Yan maintained that “only when the students enrich themselves, encourage themselves, realize themselves and adjust themselves step by step during the teaching evaluation, can they reach the high efficiency of autonomous learning” (2012, p. 562). Accordingly, students’ autonomy is a gradual process based on continuous self-feedback, self-appreciation, and encouragement. It also requires assimilation of the target culture, setting the goals, and self-evaluation. Within this scope, awareness about one’s role is highly advocated by Nicolaides who claimed that “autonomy consists not only of being able to work

independently, but also of being conscious of one's role in the environment in which one is learning" (2008, p. 141).

Self-reliance does not mean complete detachment from the teacher whose role is providing collaboration which entails that the teacher is a facilitator whenever the student is surrounded by obstacles and ambiguity. Collaboration inside the classroom is not enough; thus, tele-collaboration through the Internet could be very effective. Hence, Inquiry-based Learning (IBL) could be initiated by the student and directed by the teacher. Moreover, Project-based Learning (PBL) is encouraged by the teacher and evaluated by both the teacher and the student. In this respect, interaction between the teacher and the student is highly recommended to facilitate communication and ensure that learning has occurred.

Conducting research could be implemented through cooperation between the student and the teacher especially action research. Cooperation between teachers and their students implies the teachers' appreciation of the students' contribution to research. It ensures their independence and ability to initiate research effectively. Within this scope, the teacher should train students to conduct research by developing their research skills and techniques of academic writing. S/he has to raise students' awareness about the value of research ethics and academic integrity in order to create honest researchers. Therefore, students should know about honour codes and respect them. Nonetheless, teachers have to punish students who do not apply the rules of ethical conduct of research.

Both students and teachers should participate in assessment especially through self-assessment and self-reflection. First, teachers are responsible for their own assessment to make evaluation of their own teaching processes. Then, they are responsible for students' assessment by looking for effective ways to make it. More

importantly, the teachers' role is to evaluate the students' words by assessing the 'textual meaning' mainly through detecting plagiarism. Following Barthes' theory of reader response (1977), the teacher is an interpreter of the text through reading it and guessing about the intended meaning (as cited in Sutherland-Smith, 2008, p. 16). So, without the reader, the text is meaningless. It is the reader who assigns meaning to the words when s/he interprets them in a way or another. Thus, the teacher decides whether the text is plagiarized or not. This idea is confirmed by literary theorists who argued that "intention is decided by the reader" (Patterson, 1995, as cited in Sutherland-Smith, 2008, p. 17). However, it is not fair to blame only the reader because the intention of the student as a writer should be indicated from the beginning when s/he declares his/her ownership of the work (Sutherland-Smith, 2008, p. 18). Consequently, the teacher and the student share the responsibility of avoiding plagiarism. The former as a detector and an evaluator of the text while the latter as the owner of the words and ideas.

Content selection is done by both the teacher and the student by promoting the application of the negotiated syllabus. One could not blame the student for being demotivated while the syllabus content is not in accordance with his/her interests and preferences. Hence, specification of the learning objectives should reflect students' needs and interests. They must choose the syllabus content and play an efficient role in the teaching-learning process. Making decisions about what to include in each lesson would facilitate the learning process because the student already knows what s/he is intended to do for each part of the lesson.

Consequently, integrity is the result of a shared responsibility between teachers and students. The teachers' role is to facilitate learning by guiding students and raising their awareness of the necessity to develop autonomous learning and respecting ethical

conduct of research. Meanwhile, the students' role is to raise their autonomy and feel responsible for their research. This entails enhancing one's knowledge of referencing and paraphrasing skills as well as promoting self-assessment and academic writing skills.

6.3. Limitations of the Study

CALL (Computer Assisted Language Learning) is not implemented in the Algerian classrooms. Therefore, we were unable to investigate plagiarism within CALL contexts. Besides, distance learning degrees are still not applied in all the Algerian universities. Plagiarism would have increased in the Algerian universities if distance learning were prevalent. Consequently, new ways of plagiarism too would have appeared. Eventually, there is a need for future research in relation to the issue of *online plagiarism* or plagiarism in relation to distance learning once it is implemented in Algeria. We advise teachers to conduct research in relation to students' cheating because this study is concerned only with plagiarism as a form of academic dishonesty since the latter has a direct relation with undergraduates' research quality.

In this study, we have investigated students' plagiarism. However, preserving academic integrity should be seen from a holistic viewpoint since the academic world includes both students and teachers. Future research has to explore teachers' plagiarism too. This is due to the fact that non-deterrence of students' plagiarism could end in creating dishonest future teachers. More importantly, teachers' autonomy ought to be promoted since students' autonomy is not enough. This implies enhancing self-reflection of teachers to re-evaluate their own practices so that they could give importance to the phenomenon of plagiarism by feeling more responsible towards preserving academic integrity. Hence, future research may focus on practical investigations about teachers' autonomy as a way to increase students' autonomy.

Conclusion

Academic integrity cannot be preserved unless urgent action is taken by teachers to fight plagiarism through creating an honour code for each department which could be accessed in the Website of each university. An honour code which explains plagiarism and what constitutes academic dishonesty is an influential step towards tackling the issue of plagiarism. Establishing a code is not enough; teachers have to punish students who do not respect the norms of honest behaviour.

What is more interesting is designing an anti-plagiarism programme which could be taught in the module of writing as a crucial preventive way for avoiding the expansion of plagiarism. Additionally, detection software could work in accordance with the programme so that plagiarized works could be easily detected. In this respect, some teachers are not well-trained to use plagiarism detection software or engines; therefore, training them is highly significant. When doing so, students could feel more concerned about the problem of plagiarism and cheating. Consequently, they would be more cautious to violate the rules of academic writing.

What is more, dishonesty --as a threatening factor, could be dismissed through enhancing learners' independent learning by providing learners' with guidelines about autonomous learning and independent academic writing. Eventually, teachers could help learners conduct research autonomously by taking into consideration academic integrity through training them to use research techniques.

General Conclusion

Conducting research is not only the task of the teacher but that of undergraduate students as well. Second-year students are supposed to understand the research techniques in order to promote the research skills which are necessary for improving their research quality. Meanwhile, it is observed that some teachers are complaining about the phenomenon of plagiarized information in students' assignments, which has become easier in the Digital Age. Hence, raising students' awareness of the importance of academic integrity could reduce this problem. Within this scope, the aim of the current research was to examine the impact of autonomy and academic integrity on the improvement of the quality of undergraduate research. We hypothesized that training students to use the research techniques may lead to high-quality research. We also presumed that high-quality research would spring from students' autonomy. An experimental study following the Solomon-four group design was conducted to test the first hypothesis while a questionnaire was administered to students in order to test the second hypothesis. To know more about the prevalence of academic dishonesty, a plagiarism test 'plagiarism Checker-X' was administered before and after the experiment. A teachers interview was conducted as an additional tool to investigate students' research quality and autonomy. Furthermore, second-year students were trained to conduct research independently through the new version of the Research Skill Development Framework (2016) (*see Appendix F*).

Statistical data from the experimental study revealed that training and sanctioning are beneficial for students to develop their research quality. After the experiment and plagiarists' sanctions, the plagiarism test showed that more than half of the students (55.55%) in the experimental group and 52% of them in group three that received the treatment avoided plagiarism. The effectiveness of the experiment was

proved by counting the standard deviation and the t-test which confirmed statistical variation between the two variables. Thus, we confirmed the first hypothesis that training students to use research techniques as well as plagiarists' sanctioning may lead to high research quality. Findings from the students' questionnaire confirmed the second hypothesis that autonomous learning could lead to the improvement of students' research quality since 89.32% of the students explained that autonomy could lead to high research quality; while 81.55% of them admitted that they are self-reliant to a limited extent. In other words, they lack self-guidance or detachment from the teacher which is the highest degree of autonomy. Both the interview and the plagiarism test indicated that students' autonomy is average and that their research quality ranges from bad to average mainly because of the prevalence of plagiarism which is due to the Internet and digital sources (93.19%), laziness (83.48), and low academic self-esteem (70.87%).

On the whole, students have to practice the research techniques including paraphrasing, citation, quoting, and referencing. Besides, they have to know the writing styles mainly the latest versions published by the Modern Language Association and the American Psychological Association. This could be done through effective teaching of research methodology to enhance students' research productivity through extensive training. In this respect, the students ought to study research methods, tools and techniques that could enable them to conduct research independently. More interestingly, teachers have to use automatic detection software to detect plagiarism and sanction plagiarists. Furthermore, they have to preserve academic integrity by utilizing ethical codes as well as pledges. 67.96% of the students were aware that punishment is helpful as well as practice and self-assessment of one's research. Their research quality was not good because of their limited extent of autonomy which made them less self-

reliant. 100% of the students were plagiarists as confirmed by the results of the plagiarism test before the experiment. Nearly half of the students (48.54%) declared that plagiarism is unintentional while the other half (51.45%) believed that it is deliberate. Undergraduates could avoid plagiarism by raising their autonomy and discovering the rules of citation and paraphrasing as well as searching for information independently in the Net.

Further research may give more importance to criteria related to the assessment of students' research. Moreover, syllabus designers should design programmes related to training students to conduct research in higher education. Teachers too have to be trained to provide students with effective supervision, mentoring, tele-collaboration and counselling. Research should also be conducted in relation to VLEs (Virtual Learning Environments) such as Moodle to investigate possible causes behind students' negative attitudes towards them in foreign language learning. In addition, research is needed in the field of academic writing to tackle ways of teaching and improving it. A module about *academic writing* is needed to focus more on its nature in contrast to personal writing. Eventually, we hope that our research would be replicated in similar conditions to prove the validity of the findings.

Methodologically speaking, we highly recommend the use of the *Solomon four-group design* in experimental studies because of its internal validity. Most of the time, two-group designs do not ensure validity. Hence, the generalization of results is not possible. We also advise researchers to rely on *triangulation* through the use of two tools or more especially in qualitative research since it corroborates the results from different research tools, which leads to confirmability. More importantly, mixed methodology is highly advocated to get both structured and unstructured data.

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Appendices

Appendix A: The 'Costs/ Benefits Ratio'

The *costs/benefits ratio* is a fundamental concept expressing the primary ethical dilemma in social research. In planning their proposed research, social scientists have to consider the likely social benefits of their endeavours against the personal costs to the individuals taking part. Possible benefits accruing from the research may take the form of crucial findings leading to significant advances in theoretical and applied knowledge. Failure to do the research may cost society the advantages of the research findings and ultimately the opportunity to improve the human condition. The costs to participants may include affronts to dignity, embarrassment, loss of trust in social relations, loss of autonomy and self-determination, and lowered self-esteem. On the other hand, the benefits to participants could take the form of satisfaction in having made a contribution to science and a greater personal understanding of the research area under scrutiny. The process of balancing benefits against possible costs is chiefly a subjective one and not at all easy. There are few or no absolutes and researchers have to make decisions about research content and procedures in accordance with professional and personal values. This *costs/benefits ratio* is the basic dilemma residual in a great deal of social research.

Adapted from: Frankfort-Nachmias and Nachmias, 1992, as cited in Cohen et al. 2000, p. 50.

Appendix B: Negotiating Access Checklist

1-Clear official channels by formally requesting permission to carry out your investigation as soon as you have an agreed project outline.

Some LEAs insist that requests to carry out research are channelled through the LEA office. Check what is required in your area.

2-Speak to the people who will be asked to co-operate.

Getting the LEA or head's permission is one thing, but you need to have the support of the people who will be asked to give interviews or complete questionnaires.

3-Submit the project outline to the head, if you are carrying out a study in your or another educational institution.

List people you would like to interview or to whom you wish to send questionnaires and state conditions under which the study will be conducted.

4-Decide what you mean by anonymity and confidentiality.

Remember that if you are writing about 'the head of English' and there is only one head of English in the school, the person concerned is immediately recognizable.

5-Decide whether participants will receive a copy of the report and/or see drafts or interview transcripts.

There are cost and time implications. Think carefully before you make promises.

6-Inform participants what is to be done with the information they provide.

Your eyes and those of the examiner only? Shown to the head, the LEA etc.?

7-Prepare an outline of intentions and conditions under which the study will be carried out to hand to the participants.

Even if you explain the purpose of the study the conditions and the guarantees, participants may forget.

8-Be honest about the purpose of the study and about the conditions of the research.

If you say an interview will last ten minutes, you will break faith if it lasts an hour. If you are conducting the investigation as part of a degree or diploma course, say so.

9-Remember that people who agree to help are doing you a favour.

Make sure you return papers and books in good order and on time. Letters of thanks should be sent, no matter how busy you are.

10-Never assume 'it will be all right'. Negotiating access is an important stage in your investigation.

If you are an inside researcher, you will have to live with your mistakes, so take care.

Adapted from: Bell, 1991, as cited in Cohen, Morrison & Manion, 2000, p. 57.

Appendix C: Example of an Ethical Code

1. It is important for the researcher to reveal fully his or her identity and background.
2. The purpose and procedures of the research should be fully explained to the subjects at the outset.
3. The research and its ethical consequences should be seen from the subjects' and institution's point of view.
4. Ascertain whether the research benefits the subjects in any way (beneficence).
5. Where necessary, ensure the research does not harm the subjects in any way (non-maleficence).
6. Possible controversial findings need to be anticipated and where they ensue, handled with great sensitivity.
7. The research should be as objective as possible. This will require careful thought being given to the design, conduct and reporting of research.
8. Informed consent should be sought from all participants. All agreements reached at this stage should be honoured.
9. Sometimes it is desirable to obtain informed consent in writing.
10. Subjects should have the option to refuse to take part and know this; and the right to terminate their involvement at any time and know this also.
11. Arrangements should be made during initial contacts to provide feedback for those requesting it. It may take the form of a written résumé of findings.
12. The dignity, privacy and interests of the participants should be respected. Subsequent privacy of the subjects after the research is completed should be guaranteed (non traceability).
13. Deceit should only be used when absolutely necessary.
14. When ethical dilemmas arise, the researcher may need to consult other researchers or teachers.

Adapted from: Reynolds; as cited in Cohen et al., 2000, p. 71.

Appendix D: Patton's Classification of Interview Types

Types of interview	Characteristics	Strengths	Weaknesses
Informal conversational interview	Questions emerge from the immediate context and are asked in the natural course of things; there is no predetermination of question topics or wording.	Increases the salience and relevance of questions; interviews are built on and emerge from observations; the interview can be matched to individuals and circumstances.	Different information collected from different people with different questions. Less systematic and comprehensive if certain questions do not arise "naturally." Data organization and analysis can be quite difficult.
Interview guide approach	Topics and issues to be covered are specified in advance, in outline form; interviewer decides sequence and wording of questions in the course of the interview.	The outline increases the comprehensiveness of the data and makes data collection somewhat systematic for each respondent. Logical gaps in data can be anticipated and closed. Interviews remain fairly conversational and Situational	Important and salient topics may be inadvertently omitted. Interviewer flexibility in sequencing and wording questions can result in substantially different responses from different perspectives, thus reducing the comparability of responses.
Standardized open-ended interview	The exact wording and sequence of questions are determined in advance. All interviewees are asked the same basic questions in the same order. Questions are worded in a <i>completely</i> open ended format.	Respondents answer the same questions, thus increasing comparability of responses; data are complete for each person on the topics addressed in the interview. Reduces interviewer effects and bias when several interviewers are used. Permits evaluation users to see and review the instrumentation used in the evaluation. Facilitates organization and analysis of the data.	Less flexibility in relating the interview to particular individuals and circumstances; standardized wording of questions may constrain and limit naturalness and relevance of questions and answers.
Closed quantitative interview	Questions and response categories are determined in advance. Responses are fixed; respondent chooses from among these fixed responses.	Data analysis is simple; responses can be directly compared and easily aggregated; many questions can be asked in a short time.	Respondents must fit their experiences and feelings into the researcher's categories; may be perceived as impersonal, irrelevant, and mechanistic. Can distort what respondents really mean or experience by so completely limiting their response choices.

Adapted from: Patton, 1987, pp. 116-117.

Appendix E: Research Skill Development Framework (2006)

LEVEL OF STUDENT AUTONOMY					
	Level 1	Level 2	Level 3	Level 4	Level 5
	Students research at the level of a closed inquiry and require a high degree of structure/ guidance.	Students research at the level of a closed inquiry (lecturer specified) and require some structure/ guidance.	Students research independently at the level of a closed inquiry.	Students research at the level of an open inquiry (student initiated) within structured guidelines.	Students research at the level of an open inquiry * within self-determined guidelines in accordance with the discipline.
	Respond to questions/ tasks arising explicitly from a closed inquiry.	Respond to questions/tasks required by and implicit in a closed inquiry.	Respond to questions/tasks generated from a closed inquiry.	Generate questions/aims/ hypotheses framed within structured guidelines.	Generate questions /aims/ hypotheses/based on experience/ expertise/and literature.
	Collect and record required information/ data using a prescribed methodology from a prescribed source in which the information / data is clearly evident.	Collect and record required information/ data using a prescribed methodology from a prescribed source in which the information/ data is clearly evident.	Collect and record required information/data from self-selected sources using one of several prescribes methodologies.	Collect and record self-determined information/data from self-selected sources, choosing an appropriate methodology based on structured guidelines.	Collect and record self-determined information/ data from self-selected sources, choosing or devising an appropriate methodology with self-structured guidelines.
	<i>Curious</i>		<i>Determined</i>		
<p>← FACET OF INQUIRY →</p> <p>A. Students embark on enquiry and so determine a need for knowledge/ Understanding.</p> <p>B. Students find /generate needed information/ data using appropriate methodology.</p>					

(Continuation)

<p>C. Students critically evaluate information/ data and the process to find/ generate this information / data.</p>	<i>Critical</i>	<p>Evaluate information/ data and the inquiry process using simple prescribed criteria.</p>	<p>Evaluate information/ data and the inquiry process using prescribed criteria.</p>	<p>Evaluate information/ data and the inquiry process using criteria related to the aims of the inquiry.</p>	<p>Evaluate information/ data and the inquiry process comprehensively using self-determined criteria developed within structured guidelines</p>	<p>Evaluate information/ data and the inquiry process rigorously using self-generated criteria based on experience, expertise and literature.</p>
<p>D. Students organise information collected/ generated and manage the research process.</p>	<i>Organised</i>	<p>Organise information/ data and manage the research process according to a simple prescribed structure.</p>	<p>Organise information/ data and manage the research process according to prescribed structures.</p>	<p>Organise information/ data and manage the research process by adapting provided structures.</p>	<p>Organise information/ data and manage the research process using self-determined structures that fit provided guidelines.</p>	<p>Organise information/ data and manage the research process using self-determined protocols In accordance with the discipline.</p>
<p>E. Students synthesise and apply new knowledge.</p>	<i>Creative</i>	<p>Synthesise and analyse information/ data to reproduce existing knowledge in prescribed formats. Ask questions of clarification/ curiosity.</p>	<p>Synthesise and analyse information/ data to reorganise existing knowledge in standard formats. Ask relevant researchable questions.</p>	<p>Synthesise and analyse information/ data to construct emergent knowledge. Ask rigorous, researchable questions based on new understandings.</p>	<p>Synthesise, analyse and apply information/ data to fill recognised knowledge gaps.</p>	<p>Synthesise, analyse and apply information/ data to fill self-identified gaps or extended knowledge.</p>
<p>F. Students communicate knowledge and the processes used to generate it, with an awareness of ethical, social and cultural issues.</p>	<i>Persuasive</i>	<p>Use mainly lay language and prescribed genre to demonstrate required knowledge and understanding for lecturer /teacher as an audience.</p>	<p>Use some discipline-specific language and prescribed genre to demonstrate self-selected knowledge and understanding from a stated perspective and for a specified discipline.</p>	<p>Use mostly discipline-specific language and appropriate genre to demonstrate knowledge and understanding within a field from a scholarly perspective and for a specified audience.</p>	<p>Use the language of the discipline and appropriate genre to address knowledge and understanding gaps from several perspectives for a self-selected audience.</p>	<p>Use the language of the discipline, choosing appropriate genre to extend knowledge and understanding from diverse perspectives for a range of audiences.</p>

← FACET OF INQUIRY →

Adapted from: Willison and O'Regan, 2007, p. 400.

Appendix F: Research Skill Development Framework (2016)

Students' Autonomy when Researching					
	Prescribed researching	Bounded researching	Scaffolded researching	Open-ended researching	Unbounded researching
	Highly structured directions and modelling from educator prompt researching, in which...	Boundaries set by and limited directions from educator channel researching, in which...	Scaffolds placed by educator shape independent researching, in which ...	Students initiate research and this is guided by the educator...	Students determined guidelines for researching that are in accord with discipline or context....
Embark & Clarify What is our purpose? Students respond to or initiate research & clarify what knowledge is required. Considering ECST issues.	Students respond to questions / tasks arising explicitly from a closed inquiry. Use a provided structured approach to clarify questions, terms, requirements, expectations & ECST issues.	Students respond to questions /tasks required by and implicit in a closed inquiry. Choose from several provided structures to clarify questions, terms, requirements, expectations & ECST issues.	Students respond to questions /tasks generated from a closed inquiry. Choose from a range of provided structures or approaches to clarify questions, requirements, expectations & ECST issues.	Students generate questions /aims/ hypotheses framed within structured guidelines. Anticipate & prepare for ECST issues.	Students generate questions /aims/ hypotheses / based on experience / expertise / and literature. Delve into and prepare for ECST issues.
	Find & Generate What do we need? Students find & generate needed information/ data using appropriate methodology.	Students collect & record required information / data using a prescribed methodology from a prescribed source in which the information / data is evident.	Students collect & record appropriate information / data using given methodology from predetermined source/s where information / data is not obvious.	Students collect & record appropriate information /data from self-selected sources using one of several provided methodologies.	Students collect & record self-determined information/data choosing an appropriate methodology based on parameters set.	Students collect and record information / data from self-selected sources, choosing or devising an appropriate methodology with self-structured guidelines.
← FACETS OF RESEARCH →					
	<i>Curious</i>				<i>Determined</i>

(Continuation)

<p>Evaluate & reflect What do we trust? Students determine the credibility of sources, information & data, & make own research processes visible.</p>	<p>Students evaluate sources / information/ data using simple prescribed criteria to specify credibility & to reflect on the research process .</p>	<p>Students evaluate sources / information/ data using a choice of provided criteria to specify credibility & to reflect on the research process.</p>	<p>Students evaluate sources / information/ data & inquiry process using self-determined criteria developed within parameters given. Reflects to refine others' processes.</p>	<p>Students evaluate sources / information/ data & inquiry process rigorously using self-generated criteria based on experience, expertise and the literature. Reflect insightfully to renew others' processes.</p>
<p>Organize & Manage ? How do we arrange? Students organise information & data to reveal patterns/themes, managing teams & processes.</p>	<p>Students organise information/data using prescribed structure. Manage linear process provided (with pre-specified team roles).</p>	<p>Students organise information/data using a choice of given structures. Manage a process which has alternative possible pathways (& specify team roles).</p>	<p>Students organise information/data using self-determined structures, & manage the processes (including team function) within the parameters set.</p>	<p>Students organise information/data using self-determined structures and management of processes (including team function).</p>
<p>Analyse & Synthesise What does it mean? Students analyse information critically and synthesise new knowledge to produce coherent individual /team understandings.</p>	<p>Students interpret given information /data & synthesize knowledge into prescribed formats. Sees patterns . Ask emergent questions of clarification / curiosity.</p>	<p>Students interpret several sources of information/data & synthesize to integrate knowledge into standard formats. Ask emergent, relevant & researchable questions.</p>	<p>Students analyse information/data & synthesize to fully integrate components, consistent with parameters set. Fill knowledge gaps that are stated by others.</p>	<p>Students analyse and synthesize information/data to generalise or abstract knowledge that addresses self-or-group-identified gaps in understanding.</p>
<p>Communicate & Apply How will we relate? Students discuss, listen, write, respond to feedback & perform the processes, understandings & applications of the research, heading ECST issues & needs of audiences.</p>	<p>Students communicate with each other and relate their understanding throughout set task. Use prescribed genre to develop and demonstrate understanding to a prescribed audience. Apply to a similar context the knowledge developed. Follow prompts on ECST issues.</p>	<p>Students use prescribed genre to develop & demonstrate understanding to a pre-specified audience. Apply the knowledge developed to a similar context & follow prompts on ECST issues.</p>	<p>Students use discipline-specific language & genres to demonstrate scholarly understanding for a specified audience . They apply the knowledge developed to diverse contexts and specify ECST issues in initiating, conducting & communicating.</p>	<p>Students use appropriate language and genre to extend the knowledge of a range of audiences . Apply innovatively the knowledge developed to multiple contexts. Probe & specify ECST issues that emerge broadly</p>
<p>← FACETS OF RESEARCH →</p>				

Adapted from: Willison and O'Regan, 2016.

Appendix G: Ten Principles of Academic Integrity by McCabe and Pavela.

Affirm the importance of academic integrity.

Institutions of higher education are dedicated to the pursuit of truth. Faculty members need to affirm that the pursuit of truth is grounded in certain core values, including diligence, civility, and honesty.

Foster a love of learning.

A commitment to academic integrity is reinforced by high academic standards. Most students will thrive in an atmosphere where academic work is seen as challenging, relevant, useful, and fair.

Treat students as ends in themselves.

Faculty members should treat their students as ends in themselves--deserving individual attention and consideration. Students will generally reciprocate by respecting the best values of their teachers, including a commitment to academic integrity.

Promote an environment of trust in the classroom.

Most students are mature adults, and value an environment free of arbitrary rules and trivial assignments, where trust is earned, and given.

Encourage student responsibility for academic integrity.

With proper guidance, students can be given significant responsibility to help protect and promote the highest standards of academic integrity. Students want to work in communities where competition is fair, integrity is respected, and cheating is punished. They understand that one of the greatest inducements to engaging in academic dishonesty is the perception that academic dishonesty is rampant.

Clarify expectations for students.

Faculty members have primary responsibility for designing and cultivating the educational environment and experience. They must clarify their expectations in advance regarding honesty in academic work, including the nature and scope of student collaboration. Most students want such guidance, and welcome it in course syllabi, carefully reviewed by their teachers in class.

Develop fair and relevant forms of assessment.

Students expect their academic work to be fairly and fully assessed. Faculty members should use--and continuously revise--forms of assessment that require active and creative thought, and promote learning opportunities for students.

Reduce opportunities to engage in academic dishonesty.

Prevention is a critical line of defense against academic dishonesty. Students should not be tempted or induced to engage in acts of academic dishonesty by ambiguous policies, undefined or unrealistic standards for collaboration, inadequate classroom management, or poor examination security.

Challenge academic dishonesty when it occurs.

Students observe how faculty members behave, and what values they embrace. Faculty members who ignore or trivialize academic dishonesty send the message that the core values of academic life, and community life in general, are not worth any significant effort to enforce.

Help define and support campus-wide academic integrity standards.

Acts of academic dishonesty by individual students can occur across artificial divisions of departments and schools. Although faculty members should be the primacy role models for academic integrity, responsibility for defining, promoting, and protecting academic integrity must be a community-wide concern--not only to identify repeat offenders, and apply consistent due process procedures, but to affirm the shared values that make colleges and universities true communities.

Adapted from: *The Center of Academic Integrity California State University, Bakersfield*, Office of the Dean of Student Life, August 15, 2007.

Appendix H: French Version of the Algerian Plagiarism Pledge

Annexe de l'arrêté n° 933 du 28 juillet 2016 Fixant les règles relatives à la prévention et la lutte contre le plagiat

République Algérienne Démocratique Populaire

Établissement de l'enseignement supérieur :

Formulaire de déclaration sur l'honneur Relatif à l'engagement pour respecter les règles d'authenticité scientifique dans l'élaborations d'un travail de recherche

Je soussigné,

(étudiant,enseignantchercheur,chercheurpermanent)

.....

Détenteur d'une carte d'étudiant N°délivrée le.....

Inscrit à la Faculté.....Département.....

Et chargé de préparer un mémoire de fin d'étude, master, magistère, thèse de doctorat.

Soustitré :

.....

Déclare sur l'honneur, m'engager à respecter les règles scientifiques, méthodologiques,
et les normes de déontologie professionnelle et de l'authenticité académique requise
dans l'élaboration du projet de recherche suscité.



(Lieu), le.....

Signature

Adapted from: Ministry of Higher Education and Scientific Research (2016). Arrêté n °
933 du 28 Juillet.

Appendix I: A Checklist for a Student-Centred Classroom (Students' Roles)

As a Student	Never	Sometimes	Often	Always
I'm responsible for my own learning				
I'm capable of doing most anything I put my mind to, as long as I work hard				
I'm patient with myself and others when I/they don't get it				
I persist and persevere until I do get it				
I think about what I'm going to do before I do it				
I think about what I'm doing while I'm doing it				
I think about what I've done when I've done it				
I know and use several different strategies to solve problems				
I think "outside" the box to come up with new ideas, thoughts, and products				

Adapted from: Cash, 2011, p. 78.

Appendix J: A Checklist for a Student-Centred Classroom (Teachers' Roles)

As a Teacher	Never	Sometimes	Often	Always
I facilitate learning rather than direct it				
I guide students to success rather than lead them				
I understand and encourage student differences rather than expect all students to learn the same way at the same time				
I use a variety of instructional practices, interventions, and assessments to ensure my students are successful				
I know the content essentials and curriculum standards so my students can achieve to their highest potential				
I set high expectations for all students				

Adapted from: Cash, 2011, p. 78.

Appendix K: Approaches to Teaching and Learning and their Impact on Autonomy

<i>Dimensions</i>	TRANSMISSION APPROACH	TRANSACTION APPROACH	TRANSFORMATION APPROACH
Power/control relation	Institution or teacher determine syllabus as well as pace, mode and style of instruction.	Student-centred; shared control; co-operation among peers; scaffolding.	Community of learners; emphasis on learners who establish own goals and targets and choose own materials and pace of learning.
Nature of knowledge	Transmission of knowledge; linear process; predefined content, facts, ideas and skills.	Collaborative identification of what learners need to know; co-operative exploration.	Transformation of knowledge; construction of personal knowledge; personal identification of needs.
Learners and learning	Passive recipient of information; transfer of knowledge from teacher to learners; focus on content and product.	Negotiation with teacher and other learners; shared ownership, responsibility and development of learning plan.	Active participation in co-operative groups; emphasis on process: learning skills, self-inquiry, strategic learning, social and communication skills; meaning-making
Teachers and teaching	Emphasis on teacher's authority; providing mainly frontal instruction; professionalism as individual autonomy.	Shared ownership and responsibility; scaffolding provided when needed; collaborative development and construction of meaning.	Teacher as facilitator and learner among learners; facilitator of learning (largely in small groups); collaborative professionalism.
Motivation	Amotivation or extrinsic motivation	Balance of extrinsic and intrinsic motivation	Intrinsic motivation derived from curiosity, passion, interest.
Assessment	Summative, product-oriented: achievement testing; criterion referencing (and norm-referencing).	Formative or collaborative assessment; internalization of feedback; transparency of criteria, which may be selected by learners.	Sustainable; process-oriented: reflection on process, self-assessment and peer-assessment; personal monitoring; criterion-referencing; feedforward.
Overall outcome	Regulation by others; dependence on authoritative and more knowledgeable others.	Sharing of regulation; mutual guidance and direction; co-operation.	Self-regulation; higher order thinking; self-knowledge; use of internal and external resources, human and material.
DEGREE OF AUTONOMY	HETERONOMY	INTERDEPENDENCE	AUTONOMY

Adapted from: Everhard, 2015, p.1.

Appendix L: Oxford's Model of Learner Autonomy

Perspectives on autonomy	Themes			
	Context	Agency	Motivation	Learning strategies
<p><i>Technical</i> Autonomy is seen as skills for 'independent learning' situations, such as in a self-access center.</p>	<p>Context is viewed as literal surroundings, typically in a self-access center.</p>	<p>Agency is viewed as <i>total</i> by some advocates of self-access. However, agency is viewed as <i>limited</i> by critics of self-access.</p>	<p>Motivation is variable, depending on the situational conditions and the response of the individual to those conditions.</p>	<p>Learning strategies are considered as tools that are 'given' by the teacher to the student through learner training (strategy instruction).</p>
<p><i>Psychological</i> Autonomy is seen as a combination of characteristics of the individual. Contributions include attitudes, ability, learning strategies, and styles.</p>	<p>Context refers to the generalized environment (foreign vs. second language environment), than referring to the specific details of the immediate setting.</p>	<p>Agency is a psychological characteristic of the individual.</p>	<p>Motivational intensity (for L2 learning) is often seen as a relatively static characteristic of the person, although self-efficacy (an aspect of motivation) changes through strategy instruction. Recent complex L2 models reveal multiple aspects of motivation.</p>	<p>Learning strategies are seen as psychological features of the individual that can change through practice and strategy instruction. Optimal strategy use relates to task, learning style, goals, etc.</p>
<p>Sociocultural I Autonomy is self-regulation, gained through social interaction with a more capable, mediating person in a particular setting. Mediation can also occur through books, technology, and other means.</p>	<p>Context is seen as the relationship between the learner and more capable others, as well as specific social and cultural settings.</p>	<p>Agency is viewed as the power to control one's learning through self-regulation.</p>	<p>Motivation is linked to becoming a self-regulated individual.</p>	<p>The term 'learning strategies' is not typically used, although metacognitive, cognitive and social learning strategies are clearly implicit in Vygotsky's work.</p>

(Continuation)

Perspectives on autonomy	Themes			
	Context	Agency	Motivation	Learning strategies
<p><i>Sociocultural II</i> (often overlaps with political-critical): Autonomy is not the primary goal. The primary goal is participation (at first peripheral and then more complete) in the community of practice. Mediated learning occurs through cognitive apprenticeships.</p>	<p>Context is viewed as communities of practice, as cognitive apprenticeship, and as larger social and cultural environment.</p>	<p>Agency is reflected in a cognitive apprenticeship and in participating actively with expert practitioners.</p>	<p>Motivation is linked to becoming part of a community of practice. Motivation is investment in an 'imagined' (desired) community.</p>	<p>Learning strategies grow out of the practices of communities. In cognitive apprenticeships, learners gain strategies from expert practitioners. Also, learners already have many strategies from their initial communities.</p>
<p><i>Political-critical</i> Autonomy involves gaining access to cultural alternatives and power structures; developing an articulate voice amid competing ideologies.</p>	<p>Context is an arrangement of ideological positions, instantiated in a specific interaction, relationship, or setting.</p>	<p>Agency is power to control one's situation, be fully heard, be free from oppression, and have choices.</p>	<p>Motivation is associated with becoming free to have one's own voice, ideological position, choice of cultural alternatives. The individual is also motivated to seek redress from social inequalities of race, gender, class, etc.</p>	<p>Learning strategies are hardly discussed in the political-critical perspective, except to say that they do not belong there (see Pennycook, 1997). However, learning strategies can help open up access within power structures and cultural alternatives for learners.</p>

Adapted from: Oxford, 2003, pp. 77-79.

Appendix M: VLE Free-time Autonomy Framework for Learners' Interaction with EI

Type of autonomy	Definitions	Context	Example behaviour	Language skills	Descriptions
<p><i>Proactive and reactive autonomy during free-time VLE access</i></p> <p>L2 free expression</p> <p>Learner autonomy</p> <p>Explicit interaction</p> <p>-writing</p> <p>-speaking</p> <p>Implicit instruction</p> <p>-reading</p> <p>-listening</p>	<p>L2 free expression:</p> <p>a)student choice of L2</p> <p>b)increased L2 interaction</p> <p>Learner autonomy:</p> <p>a)responsibility</p> <p>b)decision-making</p> <p>c)evaluation by the student</p>	<p>Free time:</p> <p>-Writing forum posts</p> <p>-Reading forum posts</p> <p>-Reading additional resources</p> <p>-Writing assignments</p> <p>-Discussion (with friends)</p>	<p>Free-time logging into the site.</p> <p>Voluntary use of L2 posting to the forums.</p> <p>Level 1: <i>Reactively</i> responding to 'expert'-generated threads.</p> <p>Level 2: <i>Reactively</i> responding directly to peer-generated threads.</p> <p>Level 3: Proactively Generating own threads. <i>Proactive</i> reading forum posts. <i>Proactive</i> engagement with additional resources. <i>Reactive</i> post-lesson assignments <i>Proactive</i> discussions about postings to the forums.</p>	<p><i>Main skills:</i></p> <p>Writing</p> <p>Reading</p> <p><i>Sub-skill:</i></p> <p>Speaking</p> <p>listening</p>	<p>-Self-directed</p> <p>-Relatedness to others</p> <p>-Interaction</p> <p>-Proactively self-directed</p> <p>-Reactively task directed</p> <p>-Reactively responding to others</p> <p>-Choice</p> <p>-Freedom</p> <p>-No expert support (except for assignment feedback)</p>

Adapted from: Hamilton, 2013, p. 173.

Appendix N: Cash's Model of Learner Autonomy (2011)

Teaching and Learning Continuum (TLC)

Consultative			
TEACHER ROLE	STUDENT ROLE	LEVEL OF INDEPENDENCE	LEARNING FOCUS
Advisement on learning plan	Conduct self-guided learning	Autonomous	Metacognition Self-awareness
Provide consultation and feedback as needed	-develop, implement, and complete a learning plan. -Seek advisement as necessary and appropriate. -Produce, present, and evaluate. -Develop self-efficacy.	-Student independently: -Develops a learning plan. -Monitors progress. -Documents process and progress. -Seeks advisement as necessary and appropriate -Concludes learning -Presents results authentically. -Evaluates process and results.	Students: -Evaluate -Critique -Create By: Innovating, Designing, and creating new authentic plans, ideas, and products.
Coached			
TEACHER ROLE	STUDENT ROLE	LEVEL OF INDEPENDENCE	LEARNING FOCUS
Monitor and support Learning progress	Refine skills and deepen understanding	Collaborative	Conceptual
-Feedback / conferencing -Guided practice -Resource channel	-Listen, consider, practice, retry -Rethink, revise, reflect, refine, recycle -Develop self-regulation	Student poses and teacher refines: -Problem -Design -Timelines -Process -Evaluation and criteria	Students: -Apply -Analyze -Create By: Applying analyzed information to formulate or compile to make new ideas

Teaching and Learning Continuum (TLC)

(continuation)

Facilitated			
TEACHER ROLE	STUDENT ROLE	LEVEL OF INDEPENDENCE	LEARNING FOCUS
Provide structure for and facilitation of learning.	Actively participate in constructing, examining, and extending meaning.	Guided	Procedural
Examples include: -Discussion -Problem-based learning -Questions (open-ended) -Socratic seminar	Examples include: -Listen, question, consider, explain. -Pose/ define problems, solve, evaluate. -Answer and explain, reflect, rethink. -Consider, explain, challenge, justify.	Teacher provides options and student: -Selects from among topics. -Completes open-ended assignments. -Poses and answers questions. -Follows preset timelines. -Performs self-evaluation according to prepared criteria. -Develops skills of problem solving. -Documents stages in the process.	Students: -Understand -Apply By: Translating, interpreting, reorganizing, and applying information.

Didactic

TEACHER ROLE	STUDENT ROLE	LEVEL OF INDEPENDENCE	LEARNING FOCUS
Provide direct instruction	Passive participant who receives, takes in, and responds.	Directed	Factual
Examples include: -Demonstration/ modeling -Lecture -Questions (focused on convergent thinking)	Examples include: -Observe, attempt, practice, refine. -Listen, watch, take notes, question. -Answer, give responses	Teacher constructs and student: -Makes choices. -Finds answers. -Uses resources. -Plans time. Uses basic elements of critical and creative thinking. -Sets goals. -Follows through. -Discusses goal attainment.	Students: -Remember. -Recall. By: Verifying factual knowledge.

Adapted from: Cash, 2011, pp. 82-83.

Appendix O: Fisher et al.'s Self-Directed Learning Readiness Scale (SDLRS) for
Nursing Education (2001, p. 523)

Items					
I manage my time well					
I am self-disciplined					
I am organized					
I set strict time frames					
I have good management skills					
I am methodical					
I am systematic in my learning					
I set specific times for my study					
I solve problems using a plan					
I prioritize my work					
I can be trusted to pursue my own learning					
I prefer to plan my own learning					
I am confident in my ability to search out information					
I want to learn new information					
I enjoy learning new information					
I have a need to learn					
I enjoy a challenge					
I enjoy studying					
I critically evaluate new ideas					
I like to gather the facts before I make a decision					
I like to evaluate what I do					
I am open to new ideas					
I learn from my mistakes					
I need to know why					
When presented with a problem I cannot resolve, I will ask for assistance					
I often review the way nursing practices are conducted					
I need to be in control of what I learn					
I prefer to set my own goals					
I like to make decisions for myself					
I am responsible for my own decisions/actions					
I am in control of my life					
I have high personal standards					
I prefer to set my own learning goals					
I evaluate my own performance					
I am logical					
I am responsible					
I have high personal expectations					
I am able to focus on a problem					
I am aware of my own limitations					
I can find out information for myself					
I have high beliefs in my abilities					
I prefer to set my own criteria on which to evaluate my performance					

Appendix P: Macaskill and Taylor's Autonomous Learning Scale (2010)

Items					
<p>1- I enjoy finding information about new topics on my own.</p> <p>2-I frequently find excuses for not getting down to work.</p> <p>3- I am good at meeting deadlines.</p> <p>4-My time management is good.</p> <p>5-I am happy working on my own.</p> <p>6-Even when tasks are difficult I try to stick with them.</p> <p>7- I am open to new ways of doing familiar things.</p> <p>8-I enjoy being set a challenge.</p> <p>9-I plan my time for study effectively</p> <p>10-I tend to be motivated to work by assessment deadlines.</p> <p>11-I take responsibility for my learning experiences.</p> <p>12-I enjoy new learning experiences.</p>					

Adapted from: Macaskill & Taylor, 2010, p. 19.

Appendix Q: Sample Student Paper Scanned by the Plagiarism Software Checker-X

Print Save
X

Plagiarism Checker X Originality Report

This report is generated by the Unregistered PlagiarismChecker! Demo version!

Plagiarism Quantity: 68% Duplicate

Date	dimanche, mars 25, 2018
Words	104 Plagiarized Words / Total 152 Words
Sources	More than 7 Sources Identified
Remarks	High Plagiarism Detected - Your Document needs Critical Improvement.

Sources found:

Click on the highlighted sentence to see sources

Internet Pages

- 10% <https://www.slideshare.net/sazza0aim/2/>
- 25% <https://quizlet.com/216472965/the-nature>
- 4% <http://www.powershow.com/viewQa426aE3M>
- 10% <http://www.encyclopedia.com/caregiving/d>
- 11% <http://fac.ksu.edu/sa/sites/default/files>
- 15% <https://explorable.com/experimental-rese>

EXPERIMENTAL METHOD The word experimental Method has a range of definition. The experimental method is a systematic and scientific approach to research in which the researcher manipulates one or more variables, and controls and measures any change in other variables. Also is used to test a hypothesis by seeking to establish a causal relationship between dependent and independent variables. It involves manipulation of independent variable, while trying to keep all other variables constant.

The ultimate aims of experimental method are to generate measurable and testable data, gradually adding to the accumulation of human knowledge. Experiments are conducted to be able to predict phenomena. Typically, an experiment is constructed to be able explain some kind of causation. Experimental it helps us to

Windows Taskbar Icons
X

Appendix R: The Students' Questionnaire

Dear Students,

This questionnaire will help in a doctoral research work. Would you please tick the right answer (X) or fill in with information where necessary. The answers will be used only for this research work; they will be anonymous and strictly confidential.

Thank you in advance.

Department of English and Letters

University of Constantine 1

Section One: General Information

1. How long have you been studying English?

a- Before the university	.....years
b- At the university	.....years

2. Are you motivated to study English?

a-Yes	
b-No	

3. How is your English proficiency?

a-Good	
b-Average	
c-bad	

Section Two: Undergraduate Research

4. Do you think that when you do homework you are a researcher?

a-Yes	
b-No	

5. How is the quality of your research (written assignments)?

a-Good	
b-Average	
c-Bad	

6. How important do you consider students' research at the university?

a-Not important	
b-Important	
c-Extremely important	

7. What do you usually do when you do not understand a lesson or a part of it although the teacher has explained it again and again?

a-I rely on myself by checking both printed and digital materials	
b-I ask for explanation from my peers	
c-I do not bother myself	

8. How often do you browse the Net to know more about the lessons?

a-Always	
b-Sometimes	
c-Rarely	
d-Never	

9. Do you think that access to the Internet has facilitated research?

a-Yes	
b-No	

10. Do you think that studying *research methodology* is influential in improving your research skills?

a-Yes	
b-No	

11. When is the quality of your research better?

a-When you work individually	
b-When you work in groups	

Section Three: Autonomous Learning

12. Which approach is more effective in Teaching English as a Foreign Language?

a-The learner-centred approach	
b-The teacher-centred approach	

13. Are you a self-reliant learner?

Yes	
No	

-If yes, to what extent are you self-reliant?

a-To a great extent	
b-To a limited extent	
c-To a very limited extent	

14. To what extent do you possess the following qualities?

	a-Very high	b-high	c-Average	d-low	e-Very low
self-direction					
self-monitoring					
self-regulation					
self-determination					
self-confidence					
self-assessment					
self-evaluation					
self-control					
Responsibility for Learning					

15. Which type of autonomy could be more effective in learning?

a-Individual autonomy	
b-Collaborative autonomy (collaboration with teachers and/or peers)	

16. Which type of autonomous learning is more useful?

a-Teacher-guided learning	
b-Self-guided learning	

17. Which aspect of autonomy is more interesting to you?

a-Autonomy in the classroom	
b-Autonomy out of the classroom	

18. Do you agree that the following factors have promoted or could promote your autonomy?

	a-Strongly agree	b-Agree	c-Not sure	d-Disagree	e-Strongly disagree
Awareness and use of metacognitive skills					
Motivation					
Learning styles					
Problem-solving skills					
Self-access and technology-based learning					
Learner training					
Teacher autonomy					
Counselling					
Project-Based Learning					

19. What is the most effective role a teacher should play to promote autonomous learning? Please, select only one role.

a-Manager	
b-Organizer	
c-Counsellor	
d-Facilitator	
e-Corrector	
f-Collaborator	
g-Evaluator	

20. Do you think that autonomy should be taught as a separate module?

a-Yes	
b-No	

Section Four: Influence of Autonomy and Integrity on the Quality of Undergraduate Research

21. When you have research homework, what do you do? Please, select only one answer.

a-I write it using my own words and in-text and bibliography citation.	
b-I write it using my own words and in-text citation but I do not cite the references.	
c-I write it using my own words and in-text citation but I falsify the bibliography.	
d-I write it using my own words without in-text and bibliography citation.	
e-I copy it from a classmate.	
f-I copy it from the Internet or printed books.	
g-I buy it from the Internet websites and consider it as my own work.	
h-I ask someone else to do it for me using his/her own style.	
i-I do not do it at all.	

22. Has the Internet increased plagiarism (theft of other people's works) in higher education?

a-Yes	
b-No	

23. Is plagiarism?

a-Deliberate	
b-Unintentional	

24. Is re-submitting student's previous work as a new one considered as plagiarism?

a-Yes	<input type="checkbox"/>
b-No	<input type="checkbox"/>

-As far as you are concerned, have you ever submitted your previous work as a new one?

a-Yes	<input type="checkbox"/>
b-No	<input type="checkbox"/>

25. Have you ever bought an online paper from the Internet and considered it as your own work?

a-Yes	<input type="checkbox"/>
b-No	<input type="checkbox"/>

-If no, why?

a-Non-ownership of a credit card	<input type="checkbox"/>
b-Reliance on other forms of plagiarism	<input type="checkbox"/>
c-Respect of research ethics	<input type="checkbox"/>

26. If you have ever plagiarized other people's works, have you mixed your own words with synonyms of plagiarized words to disguise your plagiarism?

a-Yes	<input type="checkbox"/>
b-No	<input type="checkbox"/>

27. Do you collude (conspire) with your peers by submitting the same homework?

a-Yes	<input type="checkbox"/>
b-No	<input type="checkbox"/>

28. Do you agree that plagiarism is due to the following causes?

	a-Strongly agree	b-Agree	c-Not sure	d-Disagree	e-Strongly disagree
The Internet and digital sources					
Low academic self-esteem					
Cultural background					
Time constraints					
Laziness					
Family expectations					
Peer expectations					
Lack of motivation to study English					
Heavy workload					
Difficulty of the homework					
Limited knowledge of citation and paraphrasing					
No punishment by teachers					
The nature/design of assignments encourages plagiarism					
Inexistence of a written ethical code					

29. Do you think that teachers should punish students who plagiarize?

a-Yes	
b-No	

30. Have your teachers ever sanctioned (punished) students who plagiarize?

a-Yes	
b-No	

-If yes, what were plagiarists' sanctions?

a-Giving them a lower mark	
b-Giving them zero	
c-Verbal criticism and asking them to re-do the assignment	
d-Disciplinary council	
e-Exclusion from the module	
f-Other(s)	

- If there are other penalties, specify them

.....

31. Do you know the anti-plagiarism code issued by the Algerian Ministry of Higher Education in July 2016?

a-Yes	
b-No	

32. Does your department apply an anti-plagiarism code?

a-Yes	
b-No	
c-I am not sure	

33. Are all teachers able to detect plagiarism?

a-Yes	
b-No	

-If the answer is no, why are some teachers unable to detect plagiarism?

a-Non-use of software for 'automatic plagiarism detection'	
b-Unavailability of some books in digital format	
c-Time constraints	
d-Other(s)	

- If there are other causes, specify them.

.....

.....

34. Is paraphrasing in acknowledging authorship ...

a-Very easy?	
b-Easy?	
c-Difficult?	
d-Very difficult?	

-If difficult or very difficult, do you agree that the following features may be the causes behind that?

	a-Strongly agree	b-Agree	c-Not sure	d-Disagree	e-Strongly disagree
Lack of grammatical competence					
Lack of Lexical competence					
No/limited understanding of the statement(s)					
No mastery of paraphrasing techniques					
Low academic writing proficiency					
Other					

- If there are other causes, specify them.

.....

.....

35. Do you know citation styles: MLA and/or APA?

a-Yes	
b-No	

-If the answer is yes, have you applied them?

a-Yes	
b-No	

36. Does autonomy lead to high research quality?

a-Yes	
No	

-If the answer is yes, how? Classify the following suggested means from 1 to 5.

a-Through searching for information independently.	
b-Through practicing citation styles.	
c-Through practicing the techniques of academic writing.	
d-Through reading about research ethics.	
e-Through self-assessment of one's own research.	

37. What is the best strategy teachers have to follow to improve students' research quality? Classify the following suggested strategies from 1 to 6.

a-Raising their autonomy by encouraging them to work independently	
b-Teaching them research strategies and paraphrasing/citation enhanced by practice	
c-Teaching them writing techniques and rules and providing feedback	
d-Teaching them grammar and lexis and correcting their grammatical and lexical errors	
d-Setting an ethical code for each department	
e-Sanctioning plagiarists	

38. If you have further comments or recommendations about 'the influence of autonomy and integrity on students' research quality' would you please add them below?

.....

.....

.....

.....

Thank you for your cooperation

Appendix S: The Teachers' Interview

Q1. Do you think that second-year students are autonomous in the classroom? To what extent? How could you notice that?

Q2. Is their autonomy individual or collaborative (cooperation with peers and/ teachers)? Which one is better for learning? Why?

Q3. Is students' autonomy enhanced by teachers' guidance or self-guidance? How?

Q4. Could students become autonomous through interdependence which is collaboration with the teacher? How?

Q5. How do you usually help students raise their autonomy?

Q6. Do you encourage students to work independently outside the classroom? Why?

Q7. Do you encourage your students to make self-assessment? Why?

Q8. Scholars argued that learners' autonomy necessitates teachers' autonomy. Are you an autonomous teacher? As an autonomous teacher, what do you usually do (give examples)? Is it individually or in collaboration with other teachers?

Q9. Recently, students are viewed as researchers. Do you encourage students to conduct research? why?

Q10. How do you generally perceive students' undergraduate research quality (for example written assignments/homework)? What about plagiarism in students' homework?

Q11. What are the positive as well as the negative effects of autonomy on students' research?

Q12. Does assessing the quality of students' research necessitate setting shared criteria by teachers? Why?

Q13. Do you usually raise students' awareness of the issue of academic integrity? How?

Q14. Do you know the anti-plagiarism code n°: 933 which was enacted by the Algerian Ministry of Higher Education in July, 28th, 2016? Is it enough to preserve academic integrity or you think that an honour/ethical code has to be issued by the department of English to prevent plagiarism?

Q15. Do you check for students' plagiarism using plagiarism detection software? Justify your answer.

Q16. Do you punish students as a deterrence strategy when they commit plagiarism? How? If no...why?

Q17. Could training students to conduct research independently enhance their research skills? If yes what are the most effective elements teachers should focus on?

Thank you for your cooperation

Appendix T: Transcription of the Teachers' Interviews**Interview A**

Q1. Do you think that second-year students are autonomous in the classroom? To what extent? How could you notice that?

Yes, most second-year students are autonomous in their learning in classroom. I could clearly notice how they take responsibility to a greater extent over their own learning.

Q2. Is their autonomy individual or collaborative (cooperation with peers and/ teachers)? Which one is better for learning? Why?

Their autonomy is collaborative. I think responsibility to a greater extent is better for learning than individual autonomy, because students' cooperation with their classmates, peers and teachers helps them improve their autonomy in the learning process.

Q3. Is students' autonomy enhanced by teachers' guidance or self-guidance? How?

For me, students' autonomy is of course enhanced by teachers' guidance, because the guidance of the teacher plays a big role in raising students' awareness towards their autonomy.

Q4. Could students become autonomous through interdependence which is collaboration with the teacher? How?

Yes, students could become autonomous through interdependence which is collaboration with the teacher, because autonomous learning does not mean that students should be completely left alone. The teacher should control, guide, help and assess his/ her students in their learning.

Q5. How do you usually help students raise their autonomy?

I usually help students to raise their autonomy by giving them the opportunity to learn independently, as well as to control and assess their own learning.

Q6. Do you encourage students to work independently outside the classroom?

Why?

Yes, of course. Students should work independently outside the classroom because this autonomy would increase their autonomy in the classroom.

Q7. Do you encourage your students to make self-assessment? Why?

Yes, I encourage my students to make self-assessment, because through self-assessment students would be aware about the mistakes they have made and the gaps found in their learning process.

Q8. Scholars argued that learners' autonomy necessitates teachers' autonomy. Are you an autonomous teacher? As an autonomous teacher, what do you usually do (give examples)? Is it individually or in collaboration with other teachers?

Yes I am an autonomous teacher. I take my own decisions about what to teach to my students and how to teach that. I also rely on myself in designing lessons and choosing the appropriate instructional strategies in my classroom.

My autonomy is in collaboration with other teachers

Q9. Recently, students are viewed as researchers. Do you encourage students to conduct research? why?

Yes, of course, because research is considered as an instrument for an effective and a successful learning process. It also helps students to build and improve their knowledge. In addition, it develops their reading, writing and communicative skills.

Q10. How do you generally perceive students' undergraduate research quality (for example written assignments/homework)? What about plagiarism in students' homework?

I perceive students' undergraduate research quality as average. Plagiarism in students' homework is checked using plagiarism detection software.

Q11. What are the positive effects of autonomy on students' research?

The positive effects of autonomy on students' research are:

*building students' critical thinking; as they become capable in developing hypotheses and testing them as well as making conclusions.

*Autonomy helps in an attainment of an effective analytical research by the end.

Q12. Does assessing the quality of students' research necessitate setting shared criteria by teachers? Why?

Yes, assessing the quality of students' research necessitates setting shared criteria by teachers to be able to assess all students using reliable standard criteria.

Q13. Do you usually raise students' awareness of the issue of academic integrity? How?

Yes, I usually do by reminding students from time to time of the importance of honesty and ethics in their research, as well as the necessity of avoiding cheating and plagiarism.

Q14. Do you know the anti-plagiarism code n°: 933 which was enacted by the Algerian Ministry of Higher Education in July, 28th, 2016? Is it enough to preserve academic integrity or you think that an honour/ethical code has to be issued by the department of English to prevent plagiarism?

Yes, I know this anti-plagiarism code. I think it is enough to preserve academic integrity.

Q15. Do you check for students' plagiarism using plagiarism detection software? Justify your answer.

Yes, I usually check for students' plagiarism using plagiarism detection software, to assure whether the research is done honestly by the student or it is a copy from another source.

Q16. Do you punish students as a deterrence strategy when they commit plagiarism? How? If no...why?

Yes, I punish students as a deterrence strategy when they commit plagiarism, by showing them, first, their mistake, then blaming them and giving them the worst mark.

Q17. Could training students to conduct research independently enhance their research skills? If yes what are the most effective elements teachers should focus on?

Yes, training students to conduct research independently could enhance their research skills. The most effective elements teachers should focus on are:

*Offering students the opportunity to choose their own topic of the research.

*training students on how they make decision in their research process.

*Encouraging students to be more interested in classroom, more motivated to learn, and more likely to take greater responsibility over their learning.

Thank you for your cooperation

Interview B

Q1. Do you think that second-year students are autonomous in the classroom? To what extent? How could you notice that?

Their autonomy is average since they usually depend on teachers' instructions and guidance inside the classroom.

Q2. Is their autonomy individual or collaborative (cooperation with peers and/ teachers)? Which one is better for learning? Why? It is collaborative.

Their autonomy is collaborative. For me, individual autonomy is better for learning because it would make them more efficient learners who can control their own learning process depending on their individual capacities.

Q3. Is students' autonomy enhanced by teachers' guidance or self-guidance? How? It is more enhanced by teachers' guidance because students are not expected to be highly autonomous at this stage of learning.

Q4. Could students become autonomous through interdependence which is collaboration with the teacher? How?

Yes, via the use of technology in the classroom and raising learners' awareness about the importance of autonomy in learning.

Q5. How do you usually help students raise their autonomy?

I usually help students raise their autonomy through metacognitive strategy training, written assignments, and homework.

Q6. Do you encourage students to work independently outside the classroom? Why?

Of course I encourage them to work outside the classroom in order to enhance their research skills.

Q7. Do you encourage your students to make self-assessment? Why?

Yes, self-assessment would enable them to detect their strengths and weaknesses.

Q8. Scholars argued that learners' autonomy necessitates teachers' autonomy. Are you an autonomous teacher? As an autonomous teacher, what do you usually do (give examples)? Is it individually or in collaboration with other teachers?

Yes, I am autonomous. However, my autonomy is individual since I design my own syllabus and lectures without others' help.

Q9. Recently, students are viewed as researchers. Do you encourage students to conduct research? why?

Yes, I always encourage my students to conduct research because research is their own achievement. It encourages them to look for information, assess its utility to the issue of research, and organize it. It also gives them the opportunity to show their personal contribution as efficient and autonomous researchers.

Q10. How do you generally perceive students' undergraduate research quality (for example written assignments/homework)? What about plagiarism in students' homework?

It is neither good nor bad. Generally speaking, it is average. Many students commit plagiarism in their assignments.

Q11. What are the positive effects of autonomy on students' research?

The positive effects of autonomy on research are: research will be of good quality because autonomous learners will look for useful sources by themselves, will organize their time efficiently, and can assess the quality of their research.

Q12. Does assessing the quality of students' research necessitate setting shared criteria by teachers? Why?

Assessing the quality of students' research necessitate setting shared criteria by teachers in order to ensure the reliability of the results.

Q13. Do you usually raise students' awareness of the issue of academic integrity?

How?

I usually raise students' awareness of the issue of academic integrity by teaching them research skills; summarizing, paraphrasing, and in-text citation.

Q14. Do you know the anti-plagiarism code n°: 933 which was enacted by the Algerian Ministry of Higher Education in July, 28th, 2016? Is it enough to preserve academic integrity or you think that an honour/ethical code has to be issued by the department of English to prevent plagiarism?

Yes, I know it. It is not enough. I prefer an honour code at the level of the department.

Q15. Do you check for students' plagiarism using plagiarism detection software?

Justify your answer.

No, I do not because of the low quality access of the Net.

Q16. Do you punish students as a deterrence strategy when they commit plagiarism? How? If no...why?

Yes, I punish them when they commit plagiarism via lowering their marks.

Q17. Could training students to conduct research independently enhance their research skills? If yes what are the most effective elements teachers should focus on?

Yes, it could. Teachers should focus on metacognitive strategy training.

Thank you for your cooperation

Interview C

Q1. Do you think that second-year students are autonomous in the classroom? To what extent? How could you notice that?

Yes, they are, but somehow. This is obvious from their lack of attention and motivation.

Q2. Is their autonomy individual or collaborative (cooperation with peers and/ teachers)? Which one is better for learning? Why?

Individual autonomy is better for learners so as students assess their capabilities, but as I noticed students autonomy is collaborative.

Q3. Is students' autonomy enhanced by teachers' guidance or self-guidance? How?

Of course, it is enhanced by teacher's guidance, because most of students rely on teacher's guidance since they are only motivated in the classroom and only few of them can have their own motivation through autonomy outside the class.

Q4. Could students become autonomous through interdependence which is collaboration with the teacher? How?

Yes, they could. Teachers always play the central part in guiding and controlling students in the class room so when the teacher use this to increase learners autonomy or instead leave options to students to meet and decide their needs with teacher's help.

Q5. How do you usually help students raise their autonomy?

I usually help students raise their autonomy through giving some techniques of independent learning that help getting through self-access and self-motivation.

Q6. Do you encourage students to work independently outside the classroom? Why?

Yes, I encourage students to work independently outside the classroom to increase their motivation and level.

Q7. Do you encourage your students to make self-assessment? Why?

Yes, to increase their autonomy.

Q8. Scholars argued that learners' autonomy necessitates teachers' autonomy. Are you an autonomous teacher? As an autonomous teacher, what do you usually do (give examples)? Is it individually or in collaboration with other teachers?

Yes, I usually test individual levels, give individual instructions to increase learning, address learner's needs. I do this Individually.

Q9. Recently, students are viewed as researchers. Do you encourage students to conduct research? why?

Yes, encouraging students to conduct research is important because research increases motivation and offers new information to students, that information is fruitful in all sides of learning.

Q10. How do you generally perceive students' undergraduate research quality (for example written assignments/homework)? What about plagiarism in students' homework?

Their research quality is average. At the beginning of research, I did not care for plagiarism committed by second -year students. After a period of time, I have blamed them as I have explained and warned about plagiarism.

Q11. What are the positive effects of autonomy on students' research?

Autonomy may improve students' research skills by mastering the necessary techniques of research though the use of technology.

Q12. Does assessing the quality of students' research necessitate setting shared criteria by teachers? Why?

Yes, because all teachers need to have such criteria to test students' research quality equally.

Q13. Do you usually raise students' awareness of the issue of academic integrity?

How?

Yes, whenever students wanted to clarify something, they need to research and justify their point by using information from books and articles.

Q14. Do you know the anti-plagiarism code n°: 933 which was enacted by the Algerian Ministry of Higher Education in July, 28th, 2016? Is it enough to preserve academic integrity or you think that an honour/ethical code has to be issued by the department of English to prevent plagiarism?

Yes, I know it. Normally, an ethical code has to be issued by the department.

Q15. Do you check for students' plagiarism using plagiarism detection software?

Justify your answer.

No, I check it myself, inner sense.

Q16. Do you punish students as a deterrence strategy when they commit plagiarism? How? If no...why?

Yes, by giving them lower marks and warning them.

Q17. Could training students to conduct research independently enhance their research skills? If yes what are the most effective elements teachers should focus on?

Yes, teachers have to focus on avoiding plagiarism through short research papers, and helping students master the steps of research.

Thank you for your cooperation

Appendix U: Checklist of Classroom Qualities that Foster Independent Learning

The classroom atmosphere encourages student self-regulation

- Students are treated as individuals and encouraged to meet varied needs and develop unique talents; as often as possible, students select learning topics
- Students are treated as collaborators in the learning process.
- Students are taught to evaluate and appraise their own learning success.
- Students are encouraged to evaluate their own learning and study strategies, and to maintain Personal Learning Guides (HILLs).

School personnel foster positive home–school–student–peer collaboration.

- Family members are treated as coteachers and equal partners in students' education, are encouraged to hold high expectations for students, and are explicitly included in homework assignments.
- Family input is gathered regarding academic priorities; culture-respecting and family-centered practices are employed.
- Proactive, persistent, and regular formal and informal two-way communication between home and school is maintained in person, in writing, and electronically.
- Homework assignments reinforce successful classroom experiences and are well designed.
- Student self-regulation of homework completion is encouraged by goal setting, graphing, and tracking.
- Teachers help students identify methods to obtain help from family members, hotlines, and websites.
- Solution-oriented, conjoint consultation is fostered to address problem situations.
- The classroom climate promotes prosocial behaviors such as helping, sharing, cooperating, and collaborative problem solving with peers.
- Teachers model respect and courtesy toward students; they communicate that respect and kindness toward both peers and adults are expected and required.
- More popular students are encouraged to accept and “sponsor” new and rejected children.

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- Teachers help students identify methods to obtain help from peers, including the identification of “study buddies” and study groups for each subject.
- Students are taught how to give specific and positive feedback on academic work and how to tutor.

Classroom procedures foster student motivation.

- Teachers convey that they care about students by nurturing and getting to know them as individuals.
- Assignments evoke curiosity and positive emotional responses.
- Students are given challenging yet manageable tasks, and enough help so they can make progress.
- Students are given some control over assignments and projects; content is personalized.
- Academic and behavioral directions, expectations, and standards are clear to students.
- Teachers frequently provide verbal praise and support, and write positive comments on papers.
- Feelings of academic competency are encouraged by regular, publicly acknowledged success.
- Each student’s short- and long-term learning goals are collaboratively developed.
- Work is collected, corrected with specific and qualitative feedback, and returned promptly.
- Effort and accuracy are emphasized when students complete tasks.
- Students are encouraged to attribute success to increasing competence and sustained effort.
- Academic success is tied to real-world success.

Positive emotions are fostered, and negative emotions are actively managed.

- Enthusiasm for learning is modeled by educators.
- Positive emotions are encouraged by incorporating fun and laughter, as well as opportunities to experience pride, joy, and “flow” (concentrated work on enjoyable learning activities).

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- Students are not subjected to public humiliation or criticism; mistakes are used as teaching tools.
- Negative emotions such as boredom, frustration, anxiety, and anger are identified and addressed.
- Teachers encourage students to brainstorm alternatives when setbacks are experienced.
- Assignments are stimulating and challenging but manageable (at an appropriate level of difficulty).

Appropriate behaviour is fostered.

- Students collaborate with teachers in developing clear behavioural expectations.
- Appropriate behaviour has positive and preferably internally rewarding consequences.
- Inappropriate behaviour has appropriate consequences that are consistently applied.
- The function of inappropriate behaviours is assessed, and more appropriate behaviours are substituted.
- Students are encouraged to monitor and evaluate their own behaviour.

Time is managed well, and organization is encouraged.

- The teacher uses time management strategies and shares those strategies with students.
- The teacher leads discussions encouraging students in planning and prioritizing their activities.
- The teacher gives assignments both orally and in writing that are clear and provide work models.
- The teacher encourages students to write assignments in an assignment book.
- For large projects, students submit weekly progress reports or smaller parts as completed.
- Students use their knowledge of the time it takes to complete tasks to schedule appropriately.
- The teacher models organization and encourages students to consciously develop methods for organizing their work.

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Cognitive and metacognitive strategies are taught and encouraged.

- The classroom has minimal distractions and is quiet for independent work.
- The teacher directly and specifically teaches memory strategies.
- Lectures are effectively structured.
- Students are taught effective note-taking skills and required to add details and review.
- Students are encouraged to develop metacognitive skills in assessing their own learning.

Math and science skills are developed.

- Math and science instruction is guided and is tied to real-life skills.
- Math and science skills are assessed through trace methodology and think-aloud procedures.
- Teachers strike an appropriate balance between comprehension and memorization.
- When calculators are used, students are skilled in application, but also estimate answers.
- Cross-disciplinary collaboration is fostered.

Reading skills are developed

- Teachers provide varied reading materials, and varied approaches to reading are taught.
- Students are taught methods to increase concentration and comprehension as they read.
- Teachers check for students' ability to understand textbooks and provide appropriate alternatives.

Writing skills are developed.

- Students have opportunities to observe effective writing, and writing is connected to real-life skills.
- Effective methods in spelling are used.
- The writing process (prewriting, drafting, revising, editing, publishing) is fostered.
- Student self-regulation of writing is assessed through trace methodology and interviewing.

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Test-taking skills are developed.

- Material to be covered on tests is clear; study guides are provided or developed by students.
- Students are reminded to use corrected work as study guides.
- Students know test question formats and are given sample test questions.
- Grading criteria and rubrics are shared with students.
- Students collaborate in developing assessment measures or help develop test questions.
- Students monitor their own learning and plan their studying, using previously successful strategies.
- Tests are administered in a low-anxiety atmosphere.
- Students are encouraged to use tests as opportunities to demonstrate knowledge.

Teachers develop their own metacognitive skills.

- Teachers respond to seemingly identical circumstances, such as lack of homework completion, with strategies responsive to individual circumstances.

Adapted from: Harvey & Chickie-Wolfe, 2007, pp. 68-70.

Résumé

Cette recherche a pour objectif d'évaluer la qualité des travaux de recherche des étudiants d'anglais en deuxième année Licence à l'université de Guelma et l'influence de l'autonomie et l'intégrité sur cette qualité. Deux hypothèses sont émises: premièrement, inculquer aux étudiants les techniques de recherche aboutirait à une recherche de haute qualité, et, deuxièmement, faire la recherche de manière autonome améliorerait la qualité de cette recherche. Afin de tester la première hypothèse, une méthode expérimentale a été adoptée en utilisant la conception quatre groupes de Solomon. Quatre groupes d'étudiants ont été sélectionnés de manière aléatoire parmi les étudiants de deuxième année anglais à l'université de Guelma (Algérie). La deuxième hypothèse est testée en administrant un questionnaire aux étudiants. En outre, un groupe d'enseignants sont interviewés comme outil de recherche supplémentaire pour corroborer les résultats avec ceux du questionnaire. Les données d'ordre quantitatif à partir du questionnaire indiquent que la qualité des travaux de recherche effectuée par les étudiants est juste moyenne à cause du manque d'autonomie. En apprenant aux étudiants les techniques de la recherche telle la paraphrase, la citation et l'utilisation des références et en les sensibilisant sur les étapes d'une recherche indépendante en utilisant le cadre de promotion des techniques de recherche (Willison & O'Regan, 2016). Les résultats du post-test et du test de plagiat montrent que plus de la moitié des étudiants parmi le groupe expérimental ont évité le plagiat à cause de cette formation et par appréhension des sanctions. Les données quantitatives à partir du questionnaire administré aux étudiants montrent le niveau moyen de la recherche des étudiants à cause du niveau d'autonomie bien bas. Par conséquent, les deux hypothèses sont confirmées. Finalement, imposer un code d'éthique pour chaque département et sanctionner les manquements à l'éthique de la recherche comme stratégie de dissuasion sont des mesures hautement recommandées.

الملخص

تهدف هذه الدراسة الى استكشاف نوعية البحوث التي يقوم بها طلبة السنة الثانية ليسانس إنجليزية بجامعة قالمة، ومدى تأثير استقلاليتهم في العمل ونزاهتهم على هذه النوعية. لذلك تم وضع فرضيتين: الفرضية الأولى هي أن تدريب الطلبة على استعمال تقنيات البحث قد يؤدي الى بحث ذي نوعية جيدة. أما الفرضية الثانية فهي أن البحث بطريقة مستقلة قد يؤدي الى تحسين نوعيته. لاختبار صحة الفرضية الأولى اعتمدنا على المنهج التجريبي من خلال تصميم Solomon للمجموعات الأربع حيث تم اختيار عشوائي لأربعة أفواج من بين طلبة الإنجليزية للسنة الثانية بجامعة قالمة (الجزائر). ولاختبار صحة الفرضية الثانية تم إجراء استبيان لعينة من الطلبة ثم مقابلة مع الأساتذة وتمت المقارنة بين نتائج الاختبارين. وبالاعتماد على قياس قبلي واختبار كشف السرقة العلمية (Plagiarism Checker-X) قبل التجربة تم تقييم نوعية بحث الطلبة ومدى نزاهتهم الأكاديمية. وأظهرت نتائج اختبار السرقة العلمية والقياس القبلي الى جانب المقابلة أن بحث أغلبية الطلبة ذو نوعية متوسطة في أحسن الأحوال. بعد ذلك وكنتيجة تم تدريب الطلبة على إعادة الصياغة اللغوية والاستشهاد والاقتباس وكتابة المراجع إضافة الى توعيتهم بخطوات البحث المستقل من خلال تطبيق "إطار تطوير مهارات البحث" (ويليسون وأروغان، 2016). أظهرت نتائج القياس البعدي والاختبار الثاني في السرقة العلمية ان أغلبية الطلبة في المجموعة التجريبية تجنبوا السرقة العلمية بفضل التدريب من جهة والعقاب من جهة أخرى. كما أشارت البيانات الكمية المستنبطة من الاستبيان الى أن بحوث الطلبة متوسطة النوعية بسبب مستوى استقلاليتهم المتوسط ولهذا تم تأكيد صحة الفرضيتين. وفي الأخير توصي الدراسة بفرض ميثاق أخلاقي خاص بكل قسم كما تحث على العقاب كاستراتيجية ردعية للحد من السرقة العلمية.