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Teaching Creative Thinking Skills in the Algerian Secondary Schools: An Analysis of the Textbook *New Prospects*

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To my beloved family:

My grandparents Abaouz and Malika,
My parents Abdenour and Djouher,
My brothers Nacer, Abaouz, and Malek,
My fiancé Karim and his family,
To all my friends.

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Abstract

The present study is concerned with the issue of teaching creative thinking skill in English as a Foreign Language. More precisely, it is about investigating the teaching of creativity in the Algerian secondary school. It aims at evaluating the textbook *New Prospects* which is designed for the third year learners at secondary school. This investigation is conducted in the light of Anderson and Krathwohl’s Revision of the Bloom’s Taxonomy (2001) of thinking skills. The data collected involve a sample of three hundred and twenty five tasks extracted from the *New Prospects*. These tasks include a total of nine hundred and three Action Verbs which are analyzed by adopting a Mixed Research Method. It uses both the quantitative and the qualitative methods. In particular, the study implements a descriptive statistical method in order to gather statistical data, and it uses the *Taxonomy Table* and *Content Analysis* for the interpretation and explanation of the results. The findings reached from this investigation show that the Higher Order Thinking Skills (Productive Skills), including Evaluate, Analyze, and Create, are less developed in the textbook in comparison to the Lower Order Thinking Skills (Reproductive skills), which consists of Remember, Understand and Apply. By considering the productive aspect in this process of categorization, the study has shown that creative thinking skill is reflected in higher percentage more than evaluate and analyze skills. As a conclusion, we notice that creativity is developed in the *New Prospects* only to some extent (16%) of the total number of tasks and reproduction is reflected more than production, mainly the skill of Understanding which presents 27%. For further studies, we may suggest other perspectives in which other researchers can tackle the issue of creativity. For instance, they can change the case study by adopting distinct textbooks designed for the learners at the Algerian schools. Then, they can also investigate teachers’ attempts to teach creativity, or students’ creative learning in the Algerian context.

*Keywords*: Bloom’s Revised Taxonomy, Creative Thinking Skill, English as a Foreign Language, Higher Order Thinking Skills, Lower Order Thinking Skills, New Prospects.
List of Abbreviations

- BRT : Bloom’s Revised Taxonomy
- CBLT: Competency Based Language Teaching
- CLT: Communicative Teaching Methodology
- CA : Content Analysis
- EFL : English as Foreign Language
- ESL : English as Second Language
- ELT: English Language Teaching
- F/SLT: Foreign or Second Language Teaching
- HOTS: Higher Order Thinking Skills
- HP : Hypothesis
- KSA: Knowledge , Skills ,Abilities
- LOTS: Lower Order Thinking Skills
- NACCCCE : National Advisory Committee on Creative and Cultural Education
- OT: Original Taxonomy
- PBL: Problem - Based Learning
- PBL: Project - Based Learning
- TBL: Task - Based Learning
- TTCT : Torrance Tests of Creative Thinking
- TT : Taxonomy Table
- ICEDIP : Inspiration , Clarification, Evaluation, Distillation, Incubation , Perspiration
List of Symbols

%: Percentage

\(X\): The Arithmetic Mean

\(\sum\): The Sum of the Values

\(x\): The Mid Points

\(N\): The Number of Items
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Introduction

Statement of the Problem

Learners in the 21st century are in need for a mastery of more complex skills, which help them to cope with the changes that are taking place in the world such as the economic and the political changes. The highest and the most important skill that education needs to develop in learners is creative thinking skill. In fact, fostering creativity is the educational objective which gains the interest of researchers such as Bob Jeffery (2001) and Jack C. Richards (2013). They claim that changes in the world are not the only reason behind the need to develop creativity in students. But, also the raise of learner centered approach to education explains the need to provide the learners with opportunities to produce their own works to deal with problems-solving situations. In this respect, different countries in different parts of the world undertake educational reforms for the sake of enhancing creativity in learners, among other skills. Moreover, educators claim that creativity and other thinking skills should be taught through the teaching of different traditional subjects including second and foreign languages.

For many years, researchers advocate the importance of productive skills in education, in particular, the role of creative thinking skill in the educational domain. Many studies have been conducted to investigate the teaching of creativity in schools. In Korea for instance, Lee Byeon Cheon (2013) confirms that creativity has gained a national recognition as one of the important aims of national English curriculum. He claims the importance of a curriculum in developing creative thinking skill. In this sphere, Marilyn Higgins and Dory Reeves (2006) investigate the issue of creativity in relation to lesson planning. They claim that creativity is important for course planners or designers in United Kingdom, since it is an appropriate skill for them to cover complex problem related to education. In addition, they have discussed in
particular the role of “creative solving” techniques and the ways in which creative thinking can be fostered. However, R. Keith Sawyer (2004) tackles this subject from another angle. She has devoted her study to explain how creative teaching can affect the collaborative work in class. According to her, it is one of the characteristics of a collaborative classroom where collaborative decisions appear among the teacher and his learners. In addition, she claims that creative teaching requires teachers to act as facilitators and as decision makers to deal with learners’ needs. In contrast, Belkaddas Mohamed Zinddine (2010), an Algerian researcher investigates creative thinking development at the university level. He investigated the extent to which Algerian teachers help their learners to develop creativity. He comes to the conclusion that the Algerian students are not provided with opportunities to develop creativity because teachers have obstacles that prevent them to teach creatively.

The Previous works investigate matters in relation to curriculum, lesson planning and creative teaching. However, the review of previous works shows that none of these studies has covered the issue of creative thinking skill in relation to textbook designing. In other words, they do not investigate how creativity can be taught and developed through the textbook activities. Indeed, this study investigates the teaching of creative thinking skill in the Algerian secondary school textbook for the teaching of English as a foreign language namely New Prospects.

Aims and Significance of the Study

This study, then, aims to evaluate the Algerian English language secondary school textbook New Prospects. More specifically, it seeks to assess whether the textbook activities develops creative thinking skill through Task Designing. In this respect, this dissertation is the first one to tackle this issue related to fostering English as FL learners’ creativity.

Conducting a study on creativity is important because it is the subject of the 21st century that many researchers should investigate. We have accounted for New Prospects for
many reasons. It is first an official document, issued by the Algerian ministry of education to be used in third year secondary school language classes. It means that, it is a guide or a model for both teachers and learners in the process of teaching and learning. Then, *New Prospects* is the last textbook of the series of those designed for secondary school learners. That is, at this stage the learners are supposed to be able to produce their original and personal works.

This study has two main objectives. First, it aims to find out whether productivity is the objective of the *New Prospects* activities and tasks. Then, it seeks to find out whether creative thinking skill is developed through the textbook activities.

**Research Questions and Hypotheses**

To investigate the issue, the following research questions will be addressed:

1. Does the *New Prospects* implement the teaching of productive skills?
2. If yes, to what extent do the tasks encourage the teaching of creativity?

In order to answer the research questions mentioned above, we suggest the following hypotheses:

Hp1: (a) The *New Prospects* includes productive skills.
(b) The *New Prospects* does not include productive skills

Hp2: (a) Tasks in *New Prospects* help to develop learners’ creative thinking skill.
(b) The *New Prospects* does not help the learners to develop creative thinking skill.

**Research Techniques and Methodology**

In order to investigate the issue raised in this dissertation, we adopt Mixed Method Research. It is a research that combines both quantitative and qualitative methods in relation to data collection and data analysis.
The data are obtained through the evaluation of the *New Prospects*. The corpus under investigation involves a total of three hundred and twenty five tasks. These tasks include over eight hundred and seventy action verbs which are classified by adopting the Taxonomy Table (TT) related to Bloom’s Revised Taxonomy (BRT) (2001) proposed by Lorin Anderson and David Krathwohl.

To tackle this issue, the quantitative part of the research makes use of the descriptive statistical method to collect numerical data. It is the appropriate method to deal with data gathered. Then, the qualitative interpretation of the findings uses the Taxonomy Table that is related to Anderson and Krathwohl’s Revision of the Blooms Taxonomy (2001), in addition to Content Analysis (CA).

**Structure of the Dissertation**

The present work follows the Traditional- Complex Model. It involves a general introduction, four chapters and a general conclusion. The general introduction provides a general overview of the study. Then, chapter one is called *Review of Literature*. It deals mainly with the definitions of the concepts in addition to issues related to creativity in the sphere of education, and the theoretical foundation on this subject. Chapter two is named *Research Methodology*. It is concerned with two points. It first, reveals the data collection procedures that is the corpus under investigation. In other words, it deals with the description of the textbook *New Prospects* from which three hundred and twenty- five tasks are analyzed. The second point is about the data analysis procedures which consists first of a descriptive statistical method to deal with statistical data. Then, the Taxonomy Table related to Bloom’s Revised Taxonomy (2001) and Content Analysis for the interpretation of the findings.

Chapter three is related to *Results* which accounts for the statistical findings of the study. Finally, chapter four entitled *Discussion* provides us with the interpretation of the results mentioned in the previous chapter. So, it discusses the different findings and provides us with
answers to research questions. Finally, a general conclusion that is devoted to summarize the study.
Chapter 1: Review of Literature
Introduction

Investigations on creative thinking skill in English as foreign/second language (EFL/ESL) gain the interest of many researchers and educators. This chapter is related to a review of the literature on creativity. It aims at investigating creative thinking in relation to English language teaching. It identifies and highlights some key concepts that underlie creativity which gives insight to the different related literatures in this sphere. This part involves three main sections. The first section deals with the different definitions of creativity; the second section is concerned with creative thinking skill in education. The Third one investigates the Krathwohl’s revision of Original Bloom’s Taxonomy (2001) of educational objectives.

1.1. Creative Thinking Skill

Creative thinking is one of the six types of thinking which includes “metacognition, critical thinking, creative thinking, cognitive processes, core thinking skills, understanding the role of content knowledge” (Ashman & Conway 1997 cited in David Moseley et al, 2005: 24). Indeed, thinking skills are widely investigated. For instance, David Moseley et al (2005:15) define thinking as “an internal, mental process that constructs and operates on mental representation of information”. This means that, they consider this aspect as a cognitive process that occurs in an individual’s mind. It is a process which reveals the human’s thought and ideas. In addition, researchers in various academic traditions investigate thinking in relation to learning and teaching process (ibid). Among these studies there is the psychological perspective on thinking. For example, Benjamin Bloom and his colleagues (1956) establish their earlier studies in this area in which they focus on understanding and applying levels of thinking for educational objectives. Other psychologists and educators especially from United States of America and United Kingdom such as Wallas and Geoffrey
Petty work on thinking from another perspective. They investigate how it can help learners to
develop productive thinking. That is to say, they intend to help them to foster creative
thinking and problem solving.

1.1.1. The Origin of Studies on Creative Thinking

The origin of studies on creativity goes back to the pioneer work of J.P.Guilford in
1950s. In his presidential address to the American Psychological Association (1950), Guilford
claims that many psychologists and educators do not have an interest to investigate the nature
of creative thinking. Since then, he attempts to build a theory to understand the nature of
creativity. He is the first to deal with this issue in his work *Psychological Abstracts* (Dacey&

From the 1950 onwards, studies about creativity started to emerge. But, as Sternberg
and Lubart (1999) argue, research on creativity has been put away due to the lack of
multidisciplinary approaches and due to the difficulty to build a universal definition of
creativity (cited in Villalba, E.2008: 8). It remains a difficult task as it is claimed by Dacey
and Madaus (1969:58) in which they state that “the complexity of creativity more or less
militates against a universally acceptable definition”. Bailin (1994) and Theodore Lewis
(2005) support this view as they say that this problem is related to its unseen feature, or, let
say to the difficulty to deduce its characteristics (cited in Theodore, L. 2008:36). The National
Advisory Committee on Creative and Cultural Education (NACCCE’s) report entitled “All
Our Future”, in other words, claim that “the problem of definition lies in its particular
associations with the arts, in the complex nature of creative activity itself, and in the variety
of theories that have been developed to explain it” (NACCCE, 1999:30).This means that, the
issue of defining creativity is related to its link to arts and to the complexity that exists in the
term of creativity itself. It is also related to the existence of several theories which try to
explain it; this causes confusion in selecting one stable and final definition.
1.1.2. Classifications of Definitions of Creativity

To define what is creativity, Getzels and Madaus (1969) advocate that the definition of creativity is related to the emphasis that is given by a researcher. That is to say, it has a relation to the area of which a researcher focuses on. Getzels and Madaus (1969) suggest a set of *descriptive definitions* to creativity in which they support their ideas by supposing three categories *Person, Process* and *Product*. This division is widely developed by Margaret Wing Chi Lau (2006) to tackle the fourth component which is *Environment*.

**a- Person**

Some researchers define creativity in relation to *personal experience*. For instance, Dacey and George F. Madaus agree that creativity is resulted from the combination between three main systems of an individual body, the “*physiological*”, “*emotional*” and the “*intellectual*” system when they say “*a major aspect of experiential definitions of creativity has to do with the optimal integration of the physiological, emotional and intellectual systems of the human body*” (Dacey and George F. Madaus. 1969:57).

**b- Process**

Another way to see creativity is to consider creative thinking in relation to the underlying *process* of a human mind. According to Mednick, S.A and Mednick, M (1964) creative thinking “*consists of forming new combinations of associative elements which combinations either meet specified requirements, or are in some way useful*” (cited in Dacey & George F. Madaus, 1969:56). So, for them creativity is a matter of linking components that are associated to get into the objectives needed or which can at least be used. Another view is provided by Wright (2003) who says that creative process includes set of features which are “*fluency, flexibility, elaboration, transformation, problem solving objectivity and selectivity, and aesthetic and practical standers*” (cited in Lau,2006:14). To
illustrate this point, Wallas (1926) designs four phases or stages to explain how the creative process occurs. This includes Preparation, Incubation, Illumination and Verification (cited in Truman, S. 2011), and the most recent model is the Petty’s (1996) six phases of creative process namely Inspiration, Clarification, Evaluation, Distillation, Incubation, and Perspiration (ICEDIP) (cited in Moseley, D. 2005:175).

c- Product

Some other researchers relate creativity to production. It means that they consider a creative product in their views. Flanagan (1963), for instance, sees that creative product is a state of cleverness and intelligence. According to him, it is not a matter of providing a solution for a problem, but it is a result of someone’s intelligence. It is something that such “logical, routine or mechanical” process is not able to realize. (Flanagan, J.C, 1963:55-56 cited in Dacey and George, F. Madaus, 1969:55). Jackson and Messick also see creative product as a correlation of four criteria namely Unusualness, Appropriateness, Transformation and Condensation (Jackson, P.W, and Messick, 1965, cited in Dacey and George F. Madaus, 1969:56). They want to explain that a creative product is a product that is both new and socially practical. Furthermore, Lubart (1994) and Edward (2002) share this view. So, creativity may lead to plans to be developed or to products such as poems, stories and so on (cited in Theodore, L. 2005: 37).

d- Environment

The last category is related to the social dimension of creativity. It is seen as a social phenomenon constructed by the help of society. This perspective claims that there is the influence of the environmental factors in the process of building creative skill in learners. It is composed of three factors; the two important ones are: First, the Physical Environment which includes the direct connection to the natural environment. Second, there is the Social Environment that deals with the influence of the society on learners’ creativity, for instance
the influence of teachers and their role in promoting and stimulating this thinking skill. For instance, Lee, Byeong Cheon (2013:87) claims that “the teachers’ understanding of the concept of creativity has a large influence on the development of students’ creativity and successful language learning”. Teachers need to understand that a suitable environment and plan help students develop their creative capacities.

The four dimensions related to the definition of creativity are discussed in separate way. Even though researchers analyze each category in a separate way, some others claim that they are interrelated. Mace (1997), for example, claims that a product is resulted from the creative process that a creative person has in relation to the influence of the environmental factor. This view is shared by Davis (2004:42) when he says that “creative products are the outcome of creative processes engaged in by creative people, all of which are supported by a creative environment”. In this respect, to provide a definition of creativity is to consider the four types. This means that, a creative person is the one who invents new products which requires creative processes that occur in a creative mind through the influence of the environment.

1.2. Creative Thinking Skill in Education

According to Jeffrey and Craft (2001:2) investigations on creativity are developed in four topics. From the 1950’s onwards, the focus has shifted from one area to another. During the 1950’s, the major interest is on the individual, or on the personality of the creative person. By the 1960’s, the focus has shifted to measure and test the creative abilities related to cognitive processes of individuals. For instance, the psychometric approach deals with the different abilities that a person can possess. It aims to identify creative individuals by making tests such as The Torrance Tests of Creative Thinking (TTCT) in order to come to the personality traits associated with creative individuals (Torrance, E.Paul 1974.cited in Kyung, Hee Kim. 2006:3). By the 1970’s, the emphasis switched to consider creativity with relation
to “imagination”. Whereas, in the 1980’s investigators discuss the influence of the environmental or social conditions to understand the concept of creativity. Hence, from the 1980s onward, researchers have started their studies on creativity within the educational systems. In this respect, The National Advisory Committee of Creative and Cultural Education (NACCCE) have insight to this subject. It views creativity as an “imaginative activity fashioned so as to produce outcomes that are both original and of value” (NACCCE, 1999:30). To understand this view, it is necessary to consider the four features that this definition involves. The first feature is the “use of imagination” which is called a Generative mode of thought. It refers to the act of producing something new, or inexperienced ideas (NACCCE 1999:31). The second feature is the “pursuit of purposes”, that is explained as “the imaginative activity fashioned, and often refashioned, in pursuit of an objective”. That is to say creative process brings the use of imaginative ideas in action in order to achieve goals. The third one is the “originality” in which a creative act must be original. Finally, According to the NACCCE’s report (1999:33), a creative process includes also the last feature which is another mode, named the “Evaluative mode”, or “judgment of value”. The study agrees that the different judgments can be made at the level of the usefulness of imaginative activities, their effectiveness and their validity in relation to the area of study. The act of making judgment is related to the evaluation and selection of what ideas do work, and those that do not require judgment and critics. Judgment is also related to critical thinking, that is to say, it is to make an evaluation on the basis of what is suitable, occurring through the process of creativity and at the end of this process.

1.2.1. Teaching Creative Thinking Skill: the 21st Century Education

In recent years, researchers acknowledge the importance of promoting creative thinking skill in education. Within English as a second or a foreign language (ESL/EFL),
Iakovos.T (2011:82) advocates that this skill is successfully developed in this area in which it has a basic role in teaching and learning English language. This view is based mainly on the promise that there is a link between “knowledge” and “thinking” as it exists also between “language learning” and “thinking skills”. Creative thinking includes learners’ generating and applying new ideas in specific contexts or fields. In this case, learners see the existing situations in a new way, and they seek to identify other explanations and answers, in addition to considering new links or combinations that generate a positive product. Jack C. Richards (2013:1) argues that:

Talk about creativity is everywhere today, driven by the need for companies and organizations to be more competitive and by the movement towards learned-centered rather than test-driven teaching in schools. Ministries of education in different parts of the world have encouraged schools to focus more on creativity in the curriculum across all subject areas - something that is believed to have widespread consequences.

This view explains that in the present time, the concept of creativity is a universal subject since there is a growing demand to develop the 21st century creative skill within learner centeredness. For this reason, Ministries of education encourage different schools in different areas of the world to foster the creative skill in their curriculum development for all domains.

Trilling.B and Fadel.C (2009) raise also the issue of education in the 21st century. More precisely, they investigate the different demands of the 21st century education. They explain that these requirements have changed in the present time. For example, in the past, learning is known as teaching-directed whereas today it is learner-centered (ibid: 38). In addition to this, they claim that the need for skills is more than the need for knowledge (ibid). So, they have discussed the skills and abilities that the learners in this century need to develop. According to them, creative thinking is one of the core skills that are needed for life which can be fostered by learning through practice (ibid: 58). In this respect, the social sphere
has an important role in this development as it helps learners to produce new ideas; ask questions of what is unknown, and learn from errors and failures. Moreover, Trilling and Fadel (2009: 21-34) claim that in the 21st century there is the appearance of forces which lead for new ways of learning for life. They are the ways that help learners to deal more with the real life situations and solving problems. From these forces there is first Knowledge Work, which is related to collaboration. Collaborative work is an important aspect in gaining knowledge, because it is better when learners meet together to construct their knowledge. This shared knowledge is the one which help people to create new products. Then, there is Thinking Tools. This force reveals the influence of technology on the learning process. In fact, in the 21st century learners are expected to know how to use it for the purpose of being creative for instance, internet is the tool that creative people make use whether to make or to communicate what they have produced or created. Moreover, there is Digital Life Style. The coming of digital age is one of the changes in the 21st century. In this respect, people have created and developed digital means for the purpose of helping creators to invent what they want and for providing them with the largest space to be creative. Finally, Learning Research force in which learners are in need not only for learning, but they also in need to question their learning and make it appropriate. This means that, they need to be critical in their learning process.

In addition to the appearance of these forces in the 21st century, there is also the appearance of new skills known as the four Century Skills (C’S). It includes first Critical Thinking Skill in which learners need to be able to evaluate, make clarifications and finding solutions to problems in a creative way. The second skill is Collaboration. In each work, learners feel the need to be involved in a group and share problems and success, because in fact in these days success is more achieved when learners are in a group. The third is related to the skill of Communication. It is the most needed skill, because learners need to be able to
communicate what they want, and to be able to transmit a message. Finally, there is the skill of *Creativity*. Students in the 21\textsuperscript{th} century are asked to be more motivated to achieve high goals, such as creating and innovating products, not only receiving and memorizing knowledge. But, they need to practice to arrive to a satisfied result, for instance producing a story, a poem in which imagination of the producer is required (Stambler, L.G. 2013).

### 1.2.2. Learner- Centered Approaches to F/SLT and Creativity

Learner- centered approach is a specific approach to teaching a foreign or second language (F/SLT). In English language teaching (ELT), Richards (2013) claims the impact of Learner centered approach in language teaching. According to him, during the 1970’s and 1980’s learner-centeredness is developed in this period within the tenets of communicative approaches. There is a shift of emphasis from language form to language function in foreign language teaching and learning. Furthermore, in communicative approach to language teaching, the focus is mainly on the use of language for communication. This leads to the conclusion that by using the language, learners become proficient language users.

To teach thinking skill, teachers are asked to use approaches that can develop this skill in learners through guiding them to achieve this goal. David Moseley and his colleagues (2005: 23) see “teaching thinking” or “teaching thinking skills” is related to “pedagogic approaches through which specific strategies and procedures may be taught and used by learners in a controlled, conscious way to make their learning more effective”.

Studies in the 21\textsuperscript{st} century reveal the correlation between teaching creative thinking skill and the use of learner - centered approaches namely Competency- Based Language Teaching (CBLT), Task-Based Leaning (TBL), Problem-Based Leaning (PBL), and Project-Based Learning (PBL). For this sake, each of these approaches brings a new perspective on the importance of creative skill in teaching and learning English language.
The competency-based language teaching (CBLT) has been implemented in teaching and learning English language with the purpose of helping learners to deal with real life situations. It emphasizes the use of knowledge, skills and abilities in foreign language learning. Hedge defines the aspect of “competency” as “a superior performance. It is a skill or characteristic of a person, which enables him or her to carry out specific or superior actions at a superior level of performance” (Hedge, 1996. cited in Cheli, 2010). With CBA, teachers build their instructions to develop the learners’ better comprehension and application of knowledge and skills. It focuses on the learners’ productions as it looks for what they are able to produce rather than what they are able to learn only. At the final stage of a course within CBA, the learners will be able to develop such behaviors and skills. (Richards and Rodgers, 2001 cited in Cheli, 2010).

Moreover, Task-Based Learning reflects the crucial role of creativity in language learning. Albert and Kormos (2004: 277) mention that in task-based instruction or communicative language teaching “creative language practices” help learners to practice their language in which they use what they have learned and give them much opportunity for production. Lubart, (1994) and Swain (1985) share this view. They claim that, these activities and practices allow learner for “imagination, unconventionality, risk-taking, flexibility, selection of strategies, and the creation of different ways of expressing ideas”.

In addition to TBL, there is also a problem-solving approach which is one feature in CBA. In PBL, the learners are involved in situations in which they are asked to provide solutions for problems. This permits the learners to develop their thinking abilities through tasks in which “real life problems” and “interesting topics” are included. Problem-based learning makes learners discover “unknown facts” and build their knowledge by thinking that is called “a long-term memory” (cited in Vlasta Rousova 2008:10).
Finally, there is Project- Based Learning as one aspect of CBA. It is integrated into ELT instruction in which it considers language use at the discourse level and it has a focus on learner-centeredness (Chelli, 2010). According to Kasíková (2001: 49) a project is:

A specific kind of a learning task, in which pupils are allowed to choose a topic and direction of its investigation. Therefore the result is predictable only to a limited extent. It is a task that requires initiative, creativity and organizational skills, as well as undertaking responsibility for the solution of problems connected with the topic.

(Cited in Vlasta Rousova 2008:10)

In the Algerian educational syllabus a project is defined as ‘a creative way for Learners to apply what they have learnt in class’” (Chelli, 2010). This signifies that a project output reveals the learners’ application of their knowledge and their abilities. It is “complementary task” for example in Algerian textbooks the syllabus involve a project as a last task in each unit. At language classroom, the role of the teacher is to explain to his/her learners what the project is about and shows to them what are the appropriate techniques and tools for doing this type of tasks. Through the realization of the project the learner develops such competencies especially at the final step of the work where she or he demonstrates through acting what he possess as capacities all of which will be tested by the teacher (ibid).

Vlasta Rousova (2008) claims that problem-solving and task-based learning are important part of project work. It is a combination of theory and practice.


In the educational domain, researchers designed frameworks for the sake of developing the educational learning objectives. Benjamin Bloom and his colleagues have devoted a taxonomy of educational objectives in the 1956. However, other investigators namely David krathwol and Lorin Anderson (2001) add new insights on the taxonomy to fit the learners’ needs in 21st century.

1.3.1. The Bloom’s Original Taxonomy (OT)
The Original Taxonomy (OT) is a taxonomy of educational objectives that is entitled *Taxonomy of Educational Objectives*, Handbook 1: Cognitive Domain (1956). It is published by Benjamin Bloom and his colleagues. In other words, it is a collaborative work of a group of University researchers including Bloom, Engelhart, Furst, Hill and Krathwohl. Bloom (1958:10) says: “in our original consideration of the project we conceived of it as a method of improving the exchange of ideas and material among test workers, as well as other persons concerned with educational research and curriculum development”. Bloom wants to clarify that the aim of the taxonomy is to establish communication among workers in educational domains including teachers, administrators, researchers, in addition to learners and help them to debate and take decisions on curricular. Also, Krathwohl (2002:213) holds that the taxonomy aims “to classify curricular objectives and test items in order to show the breadth, on lack of breadth, of the objectives and items across the spectrum of categories”. That is to say, it is established for the sake of classification of educational system objectives. Moreover, the taxonomy is divided into three related domains the *Cognitive*, *Psychomotor*, and the *Affective domain*. They are also known by “KSA” which refers to *Knowledge*, *Skills* and *Abilities* (Bloom, 1956). The first domain is the cognitive one. It is about the intellectual abilities. The second is the affective category, which refers to the use of feeling and emotions to create subjects. The last one is the psychomotor that has relation with the physical abilities. At the end of the learning process, any learner should be able to learn some knowledge, skills and abilities (KSA). The cognitive category consists of six different levels, which are *Knowledge*, *Comprehension*, *Application*, *Analysis*, *Synthesis*, and *Evaluation*. These categories are ordered hierarchically from simpler to complex and from concert to abstract category.
1.3.2. Anderson and Krathwohl’s Revision of Bloom’s Taxonomy (2001)

Many educators and psychologists provided with theories and approaches such as Constructivism, Metacognition and Self-regulation that develop learners’ learning, through developing the cognitive and thinking levels (Aly Amer, 2006:214). For this reason, a group of researchers revised the original taxonomy in order to overcome its weaknesses and to incorporate the recent developments. According to Aly Amer (2006:216), the Revised Taxonomy has to adopt these learner- centered learning theories into its plan.

The Revised Taxonomy (RT) follows the tradition of the original taxonomy but it brings other insights into the study. By the development of the 21st century skills, learning objectives need to be revised in order to fit the adequate learning in the recent time. According to Krathwohl (2002), “Objectives” describe what students are expected to learn and these are linked to two aspects. This means that it has a relation to “subject content” and “to a description of what is to be done with or to what content”. So, the statements or items for
objectives include “a noun or a noun phrase” to deal with the subject matter content, and “a verb or a verb phrase” to deal with the cognitive processes. The Revised Taxonomy includes both a noun and a verb in separate dimensions. The noun is a crucial aspect in the Knowledge dimension. The verb is an important aspect in Cognitive Process dimension (Krathwohl (2002). This latter consists of six cognitive categories namely Remember, Understand, Apply, Analyze, Evaluate, and Create.

![Bloom's Revised Taxonomy Diagram](image)

(Munzenmaier, C. and Rubin, N. 2013:18)

Figure 2: Bloom’s Revised Taxonomy (2001)

1.3.3. The Cognitive Process Dimension of Bloom’s Revised Taxonomy (2001)

The Bloom’s Revised Taxonomy (2001) brings the idea that leaning process should be put into “action”. This means that, learners should be put into situations in which they can think, analyze and produce. The (RT) considers two dimensions. The first one which is the Knowledge Dimension that deals with the subject matters while, the Cognitive Process Dimension takes into account more the “practical” aspect. With the second dimension, the
verbs are used in order to fit the objectives. It contains six categories namely Remember, Understand, Apply, Analyze, Evaluate, and Create. They are adopted from the (OT), but these have some changes. For example, the order of Synthesis (Create) and Evaluation (Evaluate) are changed. According to Anderson et al., (2001:310) “Induction” is a process that is more complex than “Deduction”. The former is related to creating that “involves finding things that could fit together, judging their appropriateness, and assembling them to meet criteria”. The latter is included in Evaluate that “involves breaking a whole into sub parts, evaluating them, and determining whether criteria are met” (cited in Aly Amer, 2006:220). The Cognitive Process Categories construct a hierarchy. It is described by Krathwohl as “cumulative hierarchy” which signifies that a “mastery of a more complex category required prior mastery of all the less complex categories below it”. This order arise the increase of complexity among the mastery of the categories (Anderson et al, 2001:309 cited in Aly Amer, 2006:216).

The (RT) involves Lower Order Thinking Skills (LOTS) named as “Reproduction” and Higher Order Thinking Skills (HOTS) that is called “Production”. While, the former is composed of Remember, Understand, and Apply the latter consists of Analyze, Evaluate, and Create categories. In relation to the aspect of productivity, Productive thinking is a broad term used by Romiszowski (1981) which gathers both critical thinking and creative thinking. This term brings an understanding of what Bloom (1956) means by Analysis, Synthesis and Evaluation. These Higher Order Thinking Skills (HOTS) refer to deeper understanding, judgment and production. David Moseley and his colleagues support this view. They state:

It may involve planning what to do and say, imagining situations, reasoning, solving problems, considering opinions, making decisions and judgments, or generating new perspectives. The phrase captures the idea that this kind of thinking is not confined to the analysis of existing arguments, but is also concerned with generating ideas and has consequences for action. It makes little sense to separate critical thinking from creative thinking, since in many situations they overlap and are interdependent.
(David Moseley et al, 2005:119)

**a- Remember**

To remember means “to retrieve knowledge from long-term memory” (Anderson’s, et al. 2001:67). It is the first cognitive process in the Revised Taxonomy which occurs when the objective of the instruction is to recall what is previously taught. Remembering knowledge is a crucial part for learning since this knowledge is useful to deal with difficult tasks and more precisely to deal with problem solving situations. That is to say, it has an integrated part in problem solving. This category has two cognitive processes namely recognizing and recalling (Krathwohl, et al., 2002:228).

**b- Understand**

Anderson and his colleagues (2001:67) hold that “to understand is to construct meaning from instructional messages, including oral, written, and graphic communication”. With this category, learners are asked to understand what the instructional messages include. The aim is to “transfer” what is grasped as knowledge through communicating its meaning. This latter is related to the code through which the message is transmitted either spoken, written or others (Anderson, et al., 2002:228). So, this requires the message to be well constructed. In addition, learners make links between what they know before and the new knowledge. This category involves the following cognitive processes: Interpreting, Exemplifying, Classifying, Summarizing, Inferring, Comparing, and Explaining (Krathwohl, et al., 2002: 228).

**c- Apply**

Apply or “to apply is to curry out or use procedures in a given situation” (Anderson, et al., 2001:67). This refers to the use of techniques to do exercises or solve problems and this
category consists of two cognitive processes Executing and Implementing. (Krathwohl, et al., 2002:229).

d- Analyze

Analyze “involves breaking material into its constituent parts and determining how the parts are related to each other and to an overall structure” (Anderson, et al., 2001:68). This category includes three cognitive processes namely differentiating, organizing, and attributing (ibid). In this process the objective of instruction is to learn by dividing message into its parts and considering how these constituents are organized and what is the aim of this message (Krathwohl, et al., 2002:230).

e- Evaluate

Anderson, et al., define the process of Evaluating in which they state that it is “to make judgments based on criteria and standards” (2001: 68). In most of times “quality, effectiveness, efficiency, and consistency” are the criteria that are used either quantitative or qualitative (Krathwohl, et al., 2002:230). This category includes the cognitive processes of checking and critiquing.

f- Create

Create involves “putting elements together to form a coherent or functional whole [that is] reorganizing elements into a new pattern or structure, inventing a product” (Anderson, et al., 2001: 68). It means producing and joining things in a new way. It consists of three cognitive processes: generating, planning and producing.

Conclusion

The chapter has reviewed the different literatures related to creative thinking skill. It consists of three sections each one brings a new insight into creativity. The first section investigates the definitions given to this concept. It considers four categories of creativity namely Person, Process, Product, and Environment. The second section tackles creativity in
education; it gives insight to creative thinking skill in the 21st century. Third, the last part presents an overview of the Bloom’s Revised Taxonomy (2001).
Chapter 2: Research Methodology
Introduction

This chapter is concerned with research methodology. It contains a research design which is used to investigate issues related to teaching creativity in the Algerian secondary English textbook *New Prospects*. In order to answer the questions stated in the general introduction, this chapter considers two types of procedures namely, procedures for data collection and procedures for data analysis. Data collection section provides us with the description of the corpus. It means that, it deals with the description of the textbook *New Prospects*. Then, data analysis section explains the mixed method approach that includes both a quantitative and a qualitative method.

2.1. Data Collection Methods

The data are collected relying on the evaluation of the textbook *New Prospects*. It comprises the evaluation of three hundred and twenty-five tasks distributed on the six related teaching units.

2.1.1. Description of the Textbook *New Prospects*

*New Prospects* (SE3) is an official textbook designed to teach English for third year pupils at the Algerian secondary school. It is designed by the National Committee of the Ministry of National Education. It is the last part of a series of three textbooks containing *At the Crossroads* (SE1) and *Getting Through* (SE2). The *New Prospects* is based on two basic principles. First, the Communicative Language Teaching (CLT) that emphasizes learner’s real use of language for communicative purposes. Second, the Competency-based approach (CBA) which stresses learners’ communicative competencies.
a- Structure and Organization of New Prospects

The textbook contains six basic themes which are classified into six units and each theme involves language use for specific knowledge area. In each stream, pupils need to work on four units or themes.

By analyzing the organization of the units, each one of them follows the same organization and every unit has two parts named perceptively Language Outcomes and Skills and Strategies Outcomes. The first part is divided into two sequences Listen and Consider, Read and Consider sequence. The purpose of both sequences is to provide work “around the text” considering the language dimension. That is to say, it covers grammatical structures, vocabulary, pronunciation, and spelling of the text. This part is intended to help learners get enough knowledge about the topics and linguistic tools and use them for the following part. Then, the second part contains four rubrics in which two sequences are involved Listening and Speaking, and Reading and Writing. This aims to get learners foster communicative competencies and use language to develop social skills such as problem-solving skill. Both parts end with “Think, pair, share” rubric that has the purpose of getting the learners practice what they learned. The “Research and Report” rubric comes at the end of the first part of each unit. At the end of each unit there is the “project outcomes assignment rubric that accounts for the project work.

New Prospects contains a set of language learning tasks. The tasks provide learners with opportunities to use the language in interactions, and to build meanings. In addition, they help the learners to develop language skills since they include the implementation of “discovery learning” as a strategy for learning process. These tasks are different from those used in the previous series At the Crossroads and Getting Through. These tasks include complex sentences because learners at this stage of language learning need to learn more accurate sentences. Also, New Prospects involves many activities which are adopted from
Competency-based Approach. It makes use of a “know-how” which means the capacities used in language learning and “know-how to be” that is the attitudes toward learning process in order to deal with pupils’ development of competencies.

2.2. Data Analysis Methods

This part involves the procedures of data analysis. It first deals with The Taxonomy Table to textbook evaluation. Then, it moves to account for the Statistical method and Content Analysis. Data analysis involves the use of a mixed method. So, this part is devoted to deal with the analysis of the data collected from the corpus under investigation; following both a quantitative and a qualitative method.

2.2.1. The Taxonomy Table (TT)

The Taxonomy Table (see Appendice III) is a table associated with the Anderson and Krathwohl’s Revised Taxonomy (2001). It aims to provide the classification of statements of what students are expected to learn i.e., classifying the instructional and learning activities in addition to assessing the students’ mastery of objectives.

The Taxonomy Table is divided into two dimensions. The Knowledge Dimension is on the vertical axis of the table whereas the Cognitive Process Dimension is on the horizontal axis of the table. In this respect, objectives would be placed according to the two preceding dimensions that involve cells of which they will be represented. Any objective involves “noun” and “verb” that will be categorized on the appropriate row. When the Taxonomy Table is applied, we can analyze the objectives of tasks or activities. This explains the extent to which such complex knowledge and cognitive processes are implemented.

2.2.2. Descriptive Statistical Method and Content Analysis

In order to analyze the data elicited from the corpus, we have adopted both a Descriptive Statistical Method to deal with the quantitativ data and Content Analysis for the qualitative data.
a- A Descriptive Statistical Method

A Descriptive Statistical Method is used to calculate the frequency of distribution of action verbs in the six categories. Bell (1988) claims that the results are presented in percentages (cited in Yassine, 2012). So, the Arithmetic Mean is calculated as follows:

\[
\text{The Arithmetic Mean} = \frac{\text{Sum of Values}}{\text{Number of items}} \quad \text{or: } \bar{x} = \frac{\sum x}{N}
\]

The arithmetic mean is presented through the symbol \( \bar{x} \). Then, \( \sum \) refers to the sum of the values; \( x \) refers to the mid points and \( N \) is related to the number of items. In order to get the mean, it is necessary to divide the sum of the values that is the additions of the measures of each item by the number of the items. In this respect, the results are presented in percentages and they are expressed through pie charts and histograms.

b- Content Analysis (CA)

Content analysis is defined as “any technique for making inferences by systematically and objectively identifying special characteristics of messages” (Holsti, 1968: 608). Holsti considers content analysis as a procedure for analyzing messages. This occurs mainly through an explicit use of rules named “criteria of selection” which are applied in any given content analysis. These rules must consider the variation of message content and other researchers and readers must get the same results when they account for the same message content. Then, content analysis involves particular procedures which act as a scientific tool that guides researchers to understand such phenomena.

Investigators in this sphere debate the issue of content analysis in relation to two approaches. They ask whether it can be quantitative or qualitative. Berelson (1952) and Silverman (1993) argue that content analysis concerns qualitative data analysis. For instance, the former claims that content analysis is “objective, systematic, and quantitative” (Berelson, 1952). However, Smith (1975) advocates that both quantitative and qualitative data must be
accounted. He holds that it is “because qualitative analysis deals with the form and antecedent. Consequent patterns of form, while quantitative analysis deals with duration and frequency of form” (Smith, 1975:218).

Our investigation adopts this analytical tool. It account for the qualitative content analysis. Hsieh and Shannon (2005) define it as “a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns”.

c- Units and Categories of Content Analysis

Content analysis technique is applied in order to test any given written document. In this respect, investigators should select the appropriate unit of analysis and its related categories. The Unit aspect refers to the selection of specific content elements to be studied using the criteria of selection. In content analysis, researchers can consider seven units related to written messages: words (terms), themes, characters, paragraphs, items, concepts, and semantics (Berelson, 1952; Berg, 1983; Merton, 1968; Selltiz et al., 1959). Then, content analysis involves also the aspect of categories. This means the classes into which you code content items which differ according to the type of the study and the specificity of the data.

In this investigation, the textbook *New Prospects* includes a set of tasks. Each task involves at least one or two verbs that transmit messages to learners to act in some away. In our study the different action verbs will be classified and categorized following the Bloom’s Revised Taxonomy (2001).

**Conclusion**

This chapter focuses on the methodological moves of our research work. It first introduces procedures of data collection, which show the tool used to gather data needed for conducting this research. Moreover, it provides us with a description of the corpus under investigation. Then, it presents the data analysis procedures that take into account the
descriptive statistical method to deal with the statistical data in addition to the Taxonomy Table and content analysis for the interpretation of the findings.
Chapter 3: Results
Introduction

This chapter is devoted to deal with the practical side of the study. It is concerned with the findings of our investigation about the development of creativity in the textbook *New Prospects*. It presents the results obtained through the analysis of the corpus mentioned above. The study adopts the descriptive statistical method presented in the previous chapter which is used to calculate the findings. This part highlights the analysis of three hundred and twenty five (325) tasks included from the *New Prospects* textbook which is designed for the Third year pupils at Algerian secondary schools.

In order to investigate this issue, the results obtained are divided into three main parts. The first part presents the distribution of the action verbs in each unit. The second part reveals the classification of these verbs into the six cognitive categories including *Remember, Understand, Apply, Analyze, Evaluate*, and *Create*. The final stage of this study considers the division of the categories on two types called *Production* and *Reproduction*. The former includes *Analyze, Evaluate, and Create*, and the last includes *Remember, Understand, and Apply*

3.1. Presentation of the Results

The current analysis takes into account the six units in The *New Prospects* textbook. All the units contain a set of tasks. In our investigation, the core of the study is to deal with the analysis of the use of “*Action Verbs*” within those tasks involved in these units. This considers the “*Six Categories*” of the “*Cognitive Process Dimension*”. The emphasis will be on the sixth category “*Create*”. To present the findings, the study makes use of tables, histograms, and pie-charts. All of this is highlighted through percentages.
3.1.1. The Amount of Tasks in *New Prospects*

<table>
<thead>
<tr>
<th>Units</th>
<th>Nº of Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Exploring the Past</td>
<td>55</td>
</tr>
<tr>
<td>2- Ill- Gotten Gains Never Prosper</td>
<td>48</td>
</tr>
<tr>
<td>3- Schools : Different and Alike</td>
<td>58</td>
</tr>
<tr>
<td>4- Safety First</td>
<td>53</td>
</tr>
<tr>
<td>5- It’s Giant Leap for Mankind</td>
<td>57</td>
</tr>
<tr>
<td>6- We are Family !</td>
<td>54</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>325</strong></td>
</tr>
</tbody>
</table>

Table 1: Distribution of the Amount of Tasks per Unit

The *New Prospect* textbook involves over a total of thirty hundred and twenty five tasks. Table 1 presents the results obtained through our study on the distribution of the different tasks within the six units in the textbook. So, as it is mentioned in the table above, all the units involve in some way the same number of tasks which is seen between forty- eight to fifty- seven tasks. The number of tasks that makes the difference among each two units is either one task or two till five tasks. However, both units three and five implement the high amount of the tasks. This is related respectively to fifty- eight and fifty- seven tasks which correspond to 17% for each unit. Then, the unit one involves fifty- five tasks that present 16.9% of the totality. The units four and six show 16.3% and 16.6%. And they implement fifty- three and fifty- four tasks. But, unit two uses less tasks that is forty- eight tasks which correspond to 14.7%
3.1.2. The Amount of Action Verbs per Units

<table>
<thead>
<tr>
<th>Units</th>
<th>Nº of Action Verbs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit One</td>
<td>124</td>
<td>14.25</td>
</tr>
<tr>
<td>Unit Two</td>
<td>141</td>
<td>16.20</td>
</tr>
<tr>
<td>Unit Three</td>
<td>150</td>
<td>17.24</td>
</tr>
<tr>
<td>Unit Four</td>
<td>142</td>
<td>16.32</td>
</tr>
<tr>
<td>Unit Five</td>
<td>152</td>
<td>17.47</td>
</tr>
<tr>
<td>Unit Six</td>
<td>161</td>
<td>18.50</td>
</tr>
<tr>
<td>Total</td>
<td>870</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2: Distribution of the Action Verbs per Units

Table 2 shows that eight hundred and seventy action verbs are involved in the six teaching units included in *New Prospects* textbook. The sixth includes the majority of action verbs with one hundred and sixty-one verbs which correspond to 18.50%. Then, the fifth implement one hundred and fifty-two of action verbs that correspond to 17.47%. But, the third and the forth units, use respectively one hundred and fifty and, one hundred and forty-two verbs which present 17.24%, 16.32%. Unit two shows 16.20% while the first one includes only one hundred and twenty-four verbs, that is 14.25%.
3.1.3. The Classification of Action Verbs According to the Cognitive Categories

As it is highlighted in diagram 1, the second category *Understand* presents 27% of the total action verbs used in the textbook. After that, there is *Remember* that is presented in 24%. Moreover, *Apply* involves 17%. However, *Create*, *Analyze*, and *Evaluate* have respectively 16%, 10%, and 6%.
3.1.4. Classification of Action Verbs According the Cognitive Process

Dimensions

a- Remember

Diagram 2: Distribution of Action Verbs per “Remember”

The results presented in diagram 2 explain that most of the action verbs of remember cognitive process dimension are classified into “Recognizing” cognitive process. This shows 51% of the total of verbs. By contrast, “Recalling” reveals only 49%.

b- Understand

Diagram 3: Distribution of Action Verbs per “Understand”
Diagram 3 reveals that 27, 51% of the action verbs related to the cognitive category of “Understand” are categorized into “Interpreting”. But, “Explaining”, “Inferring”, and “Comparing” present respectively 24,45%, 17,46%, and 16,15%. “Classifying” “Exemplifying” and “Summarizing” express only 10,91 %, 3,05% and 0,43%.

c- Apply

<table>
<thead>
<tr>
<th>Action Verbs %</th>
<th>Executing</th>
<th>Implementy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>51</td>
<td>49</td>
</tr>
</tbody>
</table>

**Diagram 4: Distribution of Action Verbs per “Apply”**

The third category Apply involves two cognitive processes namely “Executing” and “Implementing”. From the diagram presented above, “Executing” process includes a large number of action verbs that correspond to 51%. By contrast, “Implementing” shows only 49% of the verbs.

d- Analyze

<table>
<thead>
<tr>
<th>%</th>
<th>Differentiating</th>
<th>Organizing</th>
<th>Attributing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action Verbs %</td>
<td>51,01</td>
<td>34,04</td>
<td>14,04</td>
</tr>
</tbody>
</table>
Diagram 5: Distribution of Action Verbs per “Analyze”

By examining diagram 5 “Differentiating” process reveals 51.01 % of the verbs involved in Analyze category. However, “Organizing” expresses 34.04% of the verbs involved this class. The other number of verbs is categorized into “Attributing” process which shows only 14.04%.

e- Evaluate

<table>
<thead>
<tr>
<th></th>
<th>Action Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checking</td>
<td>100</td>
</tr>
<tr>
<td>Critiquing</td>
<td>0</td>
</tr>
</tbody>
</table>

Diagram 6: Distribution of Action Verbs per “Evaluate”

As concern the fifth category Evaluate, diagram 6 reveals that the results obtained for the distribution of action verbs per “Evaluate”. This shows that the verbs are classified only in “Checking” process and none of them are presented in “Critiquing” cognitive process.

f- Create

<table>
<thead>
<tr>
<th></th>
<th>Action Verbs %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generating</td>
<td>5.63</td>
</tr>
<tr>
<td>Planning</td>
<td>9.85</td>
</tr>
<tr>
<td>Producing</td>
<td>84.5</td>
</tr>
</tbody>
</table>
Diagram 7: Distribution of Action Verbs per “Create”

The current study found that 84.5% of the action verbs involved in “Create” category are classified into “Producing” process. But, “Planning” and “Generating” includes respectively, only 9.85% and 5.63%.

3.1.3. The Classification of the Six Categories into Reproduction and Production

Diagram 8: Distribution of Action Verbs for Production and Reproduction Classes

A total of six hundred and fifteen action verbs are classified into Reproduction. This corresponds to 68%. But, Production has only two hundred and eighty-eight verbs which are presented in 32%.

a- Reproduction

<table>
<thead>
<tr>
<th>Cognitive Categories</th>
<th>N° of Action Verbs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remember</td>
<td>209</td>
<td>24</td>
</tr>
<tr>
<td>Understand</td>
<td>235</td>
<td>27</td>
</tr>
<tr>
<td>Apply</td>
<td>148</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>592</td>
<td>68</td>
</tr>
</tbody>
</table>
Table 3: The Distribution of Cognitive Categories for Reproduction

Table 3 presents the results gathered through the distribution of three cognitive categories namely Remember, Understand, and Apply per “Reproduction”. This shows that two hundred and thirty-five action verbs concern Understand which corresponds to 27%. Moreover, Remember uses two hundred and nine verbs after Apply category that implements one hundred and forty-eight verbs. The former corresponds to 24% and the latter presents 17%.

b- Production

<table>
<thead>
<tr>
<th>Cognitive Categories</th>
<th>N° of Action Verbs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyze</td>
<td>87</td>
<td>10</td>
</tr>
<tr>
<td>Evaluate</td>
<td>52</td>
<td>6</td>
</tr>
<tr>
<td>Create</td>
<td>139</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>278</strong></td>
<td><strong>32</strong></td>
</tr>
</tbody>
</table>

Table 4: The Distribution of Cognitive Categories for Production

As it is highlighted in table 4, “Production” takes into account Analyze, Evaluate, and Create cognitive categories. A major number of the verbs are classified into Create which shows 16%. Then, Analyze involves ninety verbs revealing 10%. However, Evaluate presents only fifty-four verbs for 6%.

Conclusion

This chapter presents the findings of our study on the implementation of creativity in the New Prospects. The corpus under investigation covers six units. So, the current analysis considers the tasks involved in these units taking into account the different action verbs used for specific purposes. In this respect, the results reveal that most of the verbs are classified in the second category “Understand”, then in the first category “Remember” or in the third one.
Chapter 4: Discussion
General conclusion

This dissertation is concerned with investigating the issue of the development of creative thinking skill in English as a foreign Language (EFL). It emphasizes on the evaluation of the *New Prospects* textbook by examining the implementation of creativity through tasks. Conducting this study accounts for one of the twenty first century skills that education needs to foster in learners. In this respect, Bloom’s Revised Taxonomy (2001) has been used as the basis and the source for conducting and completing this research. It is the theoretical framework that we have adopted to reach an answer for the issue under investigation.

The study aims to evaluate the Algerian textbook *New Prospects*. More precisely, it seeks to highlight how the creative skill can be reflected through the tasks included in the *New Prospects*. To deal with this issue, we addressed two related hypotheses. First, we suppose that the *New Prospects* implements the productive skills through the tasks. Then, we add that these tasks in some way account for creative thinking skill as a part of learning stage.

This dissertation has two objectives. At first, it tends to shed light on the aspect of productivity. It seeks to look for the different tasks whether the emphasis is based on the development of productive skills. Then, it tends to investigate creative thinking skill as one of the 21st century skills related to productivity. This refers to the evaluation of the textbook if it fosters creative thinking skills.

To examine our issue, we adopted Mixed Method Research. This method refers to two related methods namely quantitative and qualitative methods. The former is designed to tackle the data collection and the latter to deals with data analysis. Our corpus, that is data collection, accounts for three hundred and twenty-five tasks extracted from the *New prospects* textbook. More precisely, this part highlights the gathering of eight hundred and seventy action verbs
related to these tasks. The corpus covers the six units involved in the textbook. As concerns the quantitative side of this, we implement a descriptive statistical method which is a method used for gathering a numerical data. As for the qualitative side, we discussed and explained the findings relying on Bloom’s Revised Taxonomy (2001) and in particular the Taxonomy Table designed for the classification of the instructional objectives. In addition to content analysis which is used as a technique for this classification.

The descriptive statistical analysis of our data is obtained from the evaluation of the tasks in the six units of the textbook *New Prospects*. Following the Bloom’s Revised Taxonomy the results have shown that *Understand* is the most important developed skill in the textbook, with 27% action verbs. This means that learners who are using this textbook, at the end of their learning process, they will develop the cognitive skill or category of understanding in addition to other cognitive processes namely “interpreting, exemplifying, classifying, summarizing, inferring, comparing and explaining”. Moreover, learners will not have great opportunity to improve their creative thinking skill because the results show that only 16% action verbs is devoted to ask learners to create something through the tasks of the *New Prospects*. Hence, learners can not be creative as they can not new produce any element or anything else such as a song or a metaphor. In contrast, they will only learn how to receive and memorizing knowledge inside the classroom without acting as active learners. For the other skills, we found that *Remember* like *Understand* category is also developed in a great amount in the textbook. It is developed with 24%, in all the six units. This provides to us the classification where we have understanding in the first place then we have remember in the second one, here learners who are using this textbook will gain the ability of recognizing and remembering. In relation to the classification of the thinking skills, we carry on with the skill of *Apply* which occupies 17% in the whole textbook, this means that in addition to remembering and understanding, applying has an important place in which the users of this
textbook have the chance to apply and to use a studied situation to solve the new problem. In gaining this skill they will also have other cognitive processes, “executing and implementing”. These previous mentioned skills are categorized in what it is known as the Lower Ordered Thinking Skills (LOTS), or the reproductive skills. The results have shown that the textbook is generally dedicated to develop these Lower Ordered Thinking Skills. After this, there is Analyze, Evaluate and Create. These three thinking skills are named as the High Order Thinking Skills (HOTS), starting from Analyze with 10%, Evaluate with 6% and Create with 16%. The results have shown, that these higher thinking skills do not occupy an important place that it supposed to have in New Prospects, especially the skill of creativity, where the results show that, the percentage of creativity is only represented by 16%. It means that it does not occupy the place that it supposed to have. To sum up, the categorization of the skills according to the Bloom’s Revised Taxonomy, shows that the lower thinking skills are the ones which have an attractive place, in which we can recognize this place by only looking to the percentages. Thus, the textbook enhances more the lower thinking skills than the higher ones. In fact, ignoring this higher thinking skills in New Prospects will not help learners, in their learning outside the school and after the learning process. But, it will reinforce the fact of looking to learners as passive, not as active ones. It also reinforces and motivates learners to receive, memorize and understand knowledge rather than trying to have the ability to be creative and innovative. Moreover, the textbook does not help to prepare learners to face situations outside the classroom; facing the real situations in the real world. They will not have the ability to Analyze, Evaluate and Create new products. But, they will only be prepared to receive and memorize knowledge.

The results reveal that the Reproduction aspect is represented in 68%, but the production is shown through 32%. For interpreting the findings obtained, the study adopts mainly the Bloom’s Revised Taxonomy (2001). The results show that the most of action
verbs reflected in the instructional objectives are classified into Understand and Remember. This is what justifies how creativity is less accounted in the textbook New Prospects; it is only presented with 16%. This means that learners will have much opportunity to develop the lower thinking skills mainly understanding and remembering. While the productive ones are not developed in a sufficient way especially creativity.

Our wish is that this study has contributed to the field of education in general, and specifically to language teaching and learning, so that further investigations will be conducted about creative thinking skills. Creativity is a concept which can be investigated from other different perspectives. First, it can be analyzed in terms of learners’ creative development, and teachers’ creative development. Second, researchers can also investigate the ways creativity is taught, and what are the materials needed to improve this thinking skill.

- **Limitation of the Study**

  At the final stage of writing our dissertation, we have encountered a problem at the level of the content of the Appendices. This latter, as we know, should involve the whole corpus under investigation. This refers to the textbook New Prospects, and more precisely, to the six units of the textbook. In this respect, we notice that we can not insert all the units from page 14 to page 194. Hence, we include only the pages that involve the tasks, which we have used as examples to illustrate the type of tasks that are analyzed, and to show their structure and organization.
Bibliography
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- Richards, Jack c. (2013). *Creativity in language [Address Given at the Summer Institute for English Teachers of Creativity and Discovery in Teaching University Writing], City University of Hong Kong*. 5th June.


• Wing Chi Lau, M. (2006). Strategies Kindergarten Teachers Use to Enhance Children’s Musical Creativity: Case Studies of Three Hong Kong Teachers, PhD thesis, Centre for Learning Innovation Queensland University of Technology: Hong Kong
Appendices
**Appendix I:** The Action Verbs involved in *New Prospects*

**Cognitive Process Categories**

**Verbs for Objective**

<table>
<thead>
<tr>
<th><strong>Remember</strong></th>
<th><strong>Understand</strong></th>
<th><strong>Apply</strong></th>
<th><strong>Analyse</strong></th>
<th><strong>Evaluate</strong></th>
<th><strong>Create</strong></th>
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<td>Ask</td>
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<td>Analyse</td>
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<td>Conclude</td>
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<tr>
<td></td>
<td>Correct</td>
<td>Make</td>
<td>Derive</td>
<td>Read</td>
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</tr>
<tr>
<td></td>
<td>Complete</td>
<td>Enliven</td>
<td>Devide</td>
<td></td>
<td>Constitute</td>
</tr>
<tr>
<td></td>
<td>Cross</td>
<td>Follow</td>
<td>Decide</td>
<td></td>
<td>Develop</td>
</tr>
<tr>
<td></td>
<td>Contrast</td>
<td>Hand</td>
<td>Exchange</td>
<td></td>
<td>Design</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Include</td>
<td>Imagine</td>
<td></td>
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<td>Discuss</td>
<td>Let</td>
<td>Join</td>
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<tr>
<td>Look</td>
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<td>Out</td>
<td>Link</td>
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<td>Decide</td>
<td>Practice</td>
<td>Order</td>
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<td>Form</td>
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<td>Participate</td>
<td>Organize</td>
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<td>Flesh out</td>
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<tr>
<td>Name</td>
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<td>Pass</td>
<td>Place</td>
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<td>Hold</td>
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<tr>
<td>Underline</td>
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<td>Reorder</td>
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<td>Revise</td>
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<td>Think</td>
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<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

- **Remember:** Answer, Consider, Describe, Fill in, Find, Go, Identify, Look, List, Listen, Name, Underline, See, State, Transcribe, Think
- **Understand:** Argue, Classify, Compare, Conclude, Correct, Complete, Cross, Contrast, Discuss, Document, Decide, Draw, Derive, Draw, Explain, Give, Indicate, Insert, Illustrate, Infer, Justify, Keep, Mark
- **Apply:** Add, Act, Carry out, Continue, Make, Enliven, Follow, Hand, Include, Let, Out, Practice, Participate, Pass, Start, Try, Take, Use, Work
- **Analyse:** Arrange, Analyse, Choose, Circle, Derive, Devide, Decide, Exchange, Imagine
- **Evaluate:** Check, Decide, Guess, Review, Read
- **Create:** Ask, Brainstorm, Bring, Create, Combine, Constitute, Develop, Design, Draw, Do, Form, Flesh out, Hold, Jot, Leave out, Make, Prepare, Report, Reply, Say, Tell, Write
<table>
<thead>
<tr>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match</td>
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<tr>
<td>Note</td>
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<tr>
<td>Note</td>
</tr>
<tr>
<td>Put</td>
</tr>
<tr>
<td>Present</td>
</tr>
<tr>
<td>Place</td>
</tr>
<tr>
<td>Pick out</td>
</tr>
<tr>
<td>Refer</td>
</tr>
<tr>
<td>Respond</td>
</tr>
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<td>Rewrite</td>
</tr>
<tr>
<td>Represent</td>
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<tr>
<td>Respond</td>
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<td>Show</td>
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<td>Synthesis</td>
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<td>Transform</td>
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## Appendix II: The Cognitive Process Dimension

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<th>Lower Order Thinking Skills</th>
<th>Higher Order Thinking Skills</th>
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<td>Recognizing</td>
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</tr>
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<td>• carrying out</td>
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<td>• discriminating</td>
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<tr>
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<td>• focusing</td>
</tr>
<tr>
<td>• retrieving</td>
<td>• selecting</td>
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<tr>
<td><strong>Interpreting</strong></td>
<td><strong>Implementing</strong></td>
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<tr>
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<td>• using</td>
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<td>• focusing</td>
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<td>• representing</td>
<td>• selecting</td>
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<td>• translating</td>
<td>• discriminating</td>
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<tr>
<td><strong>Exemplifying</strong></td>
<td><strong>Organizing</strong></td>
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<tr>
<td>• illustrating</td>
<td>• finding coherence</td>
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<td>• integrating</td>
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<td><strong>explaining</strong></td>
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<tr>
<td>----------------</td>
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<td>• constructing models</td>
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(Anderson and Krathwohl, 2001:67–68)
### Appendix III: The Taxonomy Table

<table>
<thead>
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<th>The Knowledge Dimension</th>
<th>The Cognitive Process Dimension</th>
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<td>B- Conceptual Knowledge</td>
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<td>C- Procedural Knowledge</td>
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<tr>
<td>D- Meta-cognitive Knowledge</td>
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(Anderson and Krathwohl, 2002:216)

### Appendix IV: A Simple of Tasks from *New Prospects*