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*To my beloved family:*

*My parents Hcene and Fatiha*

*My husband Ahcene and all his family*

*My brothers and sisters*

*My adorable niece Maïssa*

*-Karima -*

*To my beloved family:*

*My parents*

*My grand-mother*

*My brothers and sisters*

*And all my friends especially Sabrina*

*-Nedjma-*

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## Abstract

*This study attempts to assess essential thinking skills in the section called 'Check Your Progress' that is mentioned at the end of each unit in At the Crossroads textbook which is designed for first year secondary education students. This section is destined to students' self-evaluation at the end of each unit through a series of exercises. This research is conducted under the light of Barbara Presseisen's taxonomy (1991) of essential thinking skills. As concerns data collection, it involves a sample of fifty seven exercises distributed over five assessment sections within the textbook. In order to analyze our corpus, we have opted for the use of the mixed method that helped us to qualify and quantify the gathered data that we reformulated later with charts and tables to clarify how these skills are classified within this section. The findings show that Presseisen's taxonomy is encouraged by 'Check Your Progress' exercises but the thinking skills categories are not equally emphasized. Indeed, we found that Transformations skill is the one which is more highlighted, then come respectively Qualification, Relationships, Causation and Classification skills. After that, we attempted to connect this taxonomy to the constructivism approach, as it is the one which the textbook is based on, to find out that Presseisen's essential thinking skills accord the principles of the constructivist view about learning.*

**Keywords:** *Presseisen' Taxonomy, Thinking skills, essential thinking skills, At the Crossroads, Check your Progress.*

## **List of Abbreviations**

- CBA: Competency-Based Approach
- EFL: English as a Foreign Language
- ELT: English Language Teaching
- ESL: English as a Second Language
- ETS: Essential Thinking Skills

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## **General Introduction**

### **Statement of the problem**

Throughout history, researchers and educators have been concerned with thinking skills. In fact, they have explored various issues related to it such as what are thinking skills? What is their importance? And what are their major types? Indeed, they have focused on the importance and the role of thinking skills in the cognitive development and the intellectual growth of learners.

No one can deny the importance that thinking skills have in classrooms because learners are in need for the mastery of more skills, especially after the rise of the learner-centered approach. The latter supports learners' creativity and ability to solve problems and make decisions. This new way of teaching gives learners the opportunity to become actively involved in the process of learning rather than being passive consumers of information. Thus, learners should know how to construct their knowledge, draw inferences, express opinions and make their own decisions.

In this respect, Algeria is one of the countries which adopted the learner-centered approach after the great reform of the educational system in 2002. As a result of this great shift, new textbooks have been designed at all levels to help and encourage students to think and develop their cognitive competencies.

Indeed, the textbook *At the Crossroad*, which is designed for secondary education first year students, contains tasks and activities which seek to develop learners' thinking skills and cognitive levels.

The mastery of thinking skills becomes an obligation for all students. For this reason, this field of study has gained the interest of numerous researchers who are interested in doing investigations and studies about it. Among these researchers, we can mention the work of De Bono (1982), and Stephen Johnson (2010).

## **Aims and significance of the study**

This research aims to evaluate the textbook of English that is designed for first-year students of the secondary school. Our concern is to conduct an analysis concerning the activities presented in the assessment sections of the textbook called “*Check your Progress*” in order to check whether they involve the essential thinking skills presented by Barbara Presseisen. In this respect, this dissertation is the first one to deal with this issue. The later is very important in the field of teaching and learning foreign languages.

In addition, we have chosen the textbook *At the Crossroads*, because it is the first coursebook of secondary school students. In fact, at this level the learner should be able to show his/her cognitive competencies and the ability to solve complex problems. Our objective then is to find out whether the essential thinking skills suggested by Barbara Presseisen are implemented in the activities of the assessment parts of the textbook *At the Crossroads*.

## **Research Questions and Hypotheses**

To investigate our issue we have proposed this research question:

- 1- Does the EFL textbook's section *Check your progress* implement the essential thinking skills proposed by Presseisen?

To answer this research question the following hypotheses are advanced:

**Hp1:** The section *Check your Progress* of the textbook does not implement the essential thinking skills proposed by Presseisen.

**Hp2:** The section *Check your progress* of the textbook implements the essential thinking skills proposed by Presseisen. .

## **Research Techniques and Methodology**

To carry out our research, we take as a corpus all the tasks that are included in the assessment sections called *Check your Progress* in the textbook. The tasks are to be classified using a table in which we relate each task to the thinking skill it involves using Presseisen's categorization. To analyze the data collected, we opt for the mixed methods, that is, using both the qualitative method and the quantitative method.

## **Structure of the Dissertation**

This dissertation follows the traditional-simple model. It consists of four chapters, a General Introduction, and a General Conclusion. The first chapter is named "Review of the Literature" and it includes the explanation of the different theoretical points having relation with our topic. The second chapter is "The Research Design and Methodology" which provides us with information about the data collection procedures. The third chapter presents the results and findings of our research. As for the fourth chapter, which is the last one, it deals with the discussion and analysis of the findings of our investigation. Finally, a General Conclusion provides a summary of the research and provides suggestions to enlarge the scope of the study.

# Chapter One: Review of Literature

## Introduction

This chapter is related to the review of literature about assessment of thinking skills in education. It presents the main definitions and concepts of different authors and researchers having relation with our issue. This chapter is divided into four sections. The first section involves a number of definitions and explanations of constructivism in relation to our research. The second one presents the meaning of thinking and thinking skills. Concerning the third section, it deals with some concepts which are related to textbook evaluation. Finally, the fourth section deals with some explanations of assessment.

### 1.1. Constructivism in Education

Constructivism as a learning theory has had a great impact on education and the process of learning and teaching. It is used as a basic approach in the field of teaching and learning. This approach is based on two main perspectives which are individual constructivism of John Piaget (1967) and social constructivism of Vigotsky (1978).

According Richards and Schmidt, constructivism is “*a social and educational philosophy based on the beliefs that: 1 knowledge is actively constructed by learners and not passively received 2 cognition is an adaptive process that organizes the learner’s experiential world. 3 all knowledge is socially constructed.*” (2010: 124).

Constructivists believe that there are no enduring, context-free truths, that researcher bias cannot be eliminated, that multiple, socially constructed realities can only be studied holistically rather than in pieces, and that the possibility of generalizing from one research site to another is limited. Learning is seen as involving reorganization and reconstruction and it is through these processes that people internalize knowledge and perceive the world. In language teaching, constructivism has led to a focus on learning strategies, learner beliefs, teacher thinking and other aspects of learning which stress the individual and personal contributions of learners to learning. A

constructivist view of teaching involves teachers in making their own sense of their classrooms and taking on the role of a reflective practitioner. (ibid)

In addition, “*constructivists allege that it is we who constitute or construct, on the basis of our theorizing or experience*” (Nola, 1998: 32). This means that we do not find knowledge but we construct it through our experiences. So, we can say that constructivism comes with a new way to teach and learn. In fact, the learner plays a central role in the learning process which helps him/her to improve his/her thinking skills such as reasoning and problem solving, for instance, through doing activities that encourage collaboration and role playing by adopting real situations, transforming information and using authentic materials. This kind of teaching gives the learner the opportunity to be actively involved in the learning process. Indeed, the constructivist approach encourages students to think critically and it gives them the opportunity to show their competences through practices such as problem solving. In fact

It is assumed that learners have to construct their own knowledge individually and collectively each learner has a tool kit of concepts and skills with which he or she must construct knowledge to solve problems presented by the environment. The role of the community, other learner and teacher is to provide the setting pose and to challenge ,and offer the support that will encourage ... construction.

(cited in Gail and Brader,2002: 10)

So, constructivism as an educational theory offers the learner the opportunity to develop his or her cognitive abilities. In other words, it is a student-centered approach. Its aim is to help, motivate and engage students to be active rather than passive learners. Thus, educators and researchers regard this theory as a helpful way which is used to create meaningful context and construct new understanding basing on their own experiences. For constructivists, it is more meaningful when a learner relates on his/ her own experience.

The aim of constructivist teaching then is not to provide direct instruction or minimal instruction, but optimum levels of instruction constructivist pedagogy therefore involves shifts between period of teacher presentation and exposition and period when students engage with a range of individual and particularly group-work, some of which may seem quite open- ended. However, even during these periods, the teacher’s

role in monitoring and supporting is fundamental. Constructivism as a learning theory suggests that effective teaching needs to be both student-centered and teacher directed.

(Taber, 2011: 5)

Then, unlike the traditional classroom the constructivist one is characterized by the active role of the learners and their meaningful interaction and discussion between them, as well as with their teacher. Moreover, the teacher acts as a facilitator and guide whose role is to monitor, encourage and guide his/her learners. In the constructivist point of view, learning is a social activity that is to say individual can construct their knowledge through their interaction with their family, peers and teachers.

Finally, Keith Taber (2011: 56) states that “*constructivism implies that the individual has to create knowledge himself, and clearly the feeling of discovery a pattern oneself rather than just being told can have considerable motivational value*”. From this view, we can deduce that constructivist teaching helps students to be creative by creating new concepts and the discovery of new knowledge. The ability to be creative engages and motivates students in their learning process. Constructivism has been widely adopted as a learning theory in many countries all over the world. This is due to its benefits and its contribution in the development of students thinking skills.

## **1.2. Assessment**

Assessment has been defined broadly by different scholars who considered its main characteristics and purposes in relation to the field of education. For example, according to Dylan (2013:15) “*assessment is the key of effective instruction*”. This means that effective learning can be achieved only through assessment and judgment of the students’ performances. So, we can say that the teaching and learning process cannot be successful without assessing students work and testing their cognitive abilities. Another definition of assessment is offered by Goode *et al* (2010: 21) who argue that:

Assessment is an integral part of learning. Good assessment takes into account learning styles strengths and needs. It is flexible and reflects a student's achievement against set criteria not against another student. Effective assessment takes place over time and is varied in its approach. Assessment is not an add-on and it is not teacher-centered. Assessment is part of learning and that means an ongoing part of everyday. For the teacher, assessment is the process of gathering information about student learning. Most often this feedback is done through formative assessment strategies.

Based on this definition, we can infer that assessment presents the information and ideas that teachers collect about their students' learning for decision making. In other words, assessment allows teachers to draw a clear picture about their students' competences and thinking abilities. In addition, assessment is a kind of mediation and a bridge between teachers and students. Moreover, it gives teachers the opportunity to prepare the relevant learning items, gather information about students' performance and provide students with feedback in a continuous way (formative assessment). Thus, we can say that assessment is a support for the teaching and learning process.

According to Hattie (2003: 2) "*assessment is a feedback information*". That is to say, assessment provides the teacher with specific knowledge about students understanding. Hence, this opportunity permits the teacher to answer the three feedback questions which are according to Hattie (2003: 2) "*where am I going ? how am I going? and where to go next?*" this perspective shows that assessment is used by teachers as a tool which helps them to set their objectives and to know their destination in the teaching process. Therefore assessment is a kind of evaluation through tests and examinations which seek to reflect students' cognitive abilities in addition to their needs.

### **1.2.1. Types of Assessment**

Assessment plays a vital role in promoting student's progress and enhancing the learning process. However, this term does not have a typical definition, because it is used differently according to each context, this is what Cizek (1997: 57) reinforces by stating that "*there is*

*certainly no standard usage of the term. It is used in so many different contexts and for many different purposes” (cited in Aouine,2011: 57).*

### **a- Summative assessment**

Chappuis.S and chappuis.J (2007: 14) argue that “*summative assessment, sometimes referred to as assessment of learning. Typically documents how much learning has occurred at a point in time, its purpose is to measure the level of students, school program success*”. This means that summative assessment is a kind of evaluation which is given at the end of the course or unit of study in order to judge the students’ performance and evaluate the effectiveness of curricula. Indeed, this kind of assessment is a way to weigh the students’ level and progress during a specific period of time. According to Taras (2005: 486) “*the process of assessment leads to summative assessment, that is, a judgment which encapsulates all the evidence up to a given point*”, that is to say, summative assessment is an overview of students’ performances at a particular period of time. As an illustration of summative assessment, we can mention the BEM and the BAC examinations that take place in Algeria. In addition, we can refer to the end of semester exams that the students take at the department of English.

Furthermore, Loony (2011: 07) claims that “*summative assessment of individual students may be used for promotion, certification or admission to higher level of educations*”. This means that summative assessment deals with marks and grades. It is a pedagogical tool that permits the responsible to know the students who succeed and those who do not.

### **b- Formative assessment**

According to Loony (2011: 07) “*formative assessment, by contrast, draws on information gathered in assessment process to identify learning needs and adjust teaching*” that is to say, formative assessment is used by teachers in order to control students’ ongoing process that takes place during day to day learning experience. Furthermore, it allows teachers

to recognize students' needs in terms of materials or methods and styles of teaching. As well as it is an effective key to improve the learning and teaching process. For example, through formative assessment teachers can decide whether to adjust and change their teaching or not and this is by relying on the information that teachers gather about their students' learning. In other words, if the teacher notices that the majority of the students understand what he/she gives them as knowledge, he/she can carry on teaching in the same way. But, if the teacher remarks that the majority of the students do not understand, he/she can look for the reasons behind that. In brief, formative assessment tells the teachers about their way of teaching; if it is good or bad.

In addition, Chappuis.S and Chappuis.J (2008: 14) state that “*Formative assessment delivers information during the instructional process, before the summative assessment*”, this means that formative assessment is a helpful way to control student's progress in a continuous way and monitor their performances before moving to summative assessment.

After having dealt with the definitions of assessment, its types (formative and summative assessment), we move on to deal with thinking.

### **1.3. Thinking**

Thinking is a complex term which does not have a precise definition and explanation. However, several researchers and thinkers tried to simplify the term by providing some definitions according to different approaches that focus on “*mental activity, logic and reason and the critical use of information*” (Ibid). For instance, according to Costa, thinking happens when “*the senses receive an external stimuli followed by internal processing*” (cited in French, 2011: 11). The same idea was expressed by Cohen who defined thinking as “*the mental derivation of mental elements (thoughts) from perceptions and the mental manipulation/combination of these thoughts*” (cited in Presseisen 1991: 56). These scholars

agree that thinking is a process of using mind to consider sensory input carefully. That is to say, thinking is the activity of setting and arranging ideas in the mind from the moment this later receives information. This activity occurs in order to understand and give meaning to the information received; this is what De Bono highlights in his definition when he states that *“thinking is the deliberate exploration of experience for a purpose. That purpose may be understanding, decision making, planning, problem solving, judgment, action and so on”* (cited in Assaf, 2009 : 5). This means that thinking occurs consciously and that it involves different things such as making decisions, understanding, and so on.

In the same context, Presseisen (1991: 56) explains that *“thinking is generally assumed to be a cognitive process, a mental act by which knowledge is acquired”*, which means that she considers thinking as the operation that thinkers perform in their mind for comprehending and understanding new information. This is the view that Moseley (2005: 15) strengthens when he defined thinking as the internal and mental process which takes place in the individual’s mind when considering information.

Moreover, Stuhlman (2008: 1) gives a broad meaning of thinking which includes most of other definitions by stating that *“thinking is an internal mental process that uses information as input, integrates that information into previous learned material and the result may be knowledge or may be nothing”*. Stuhlman holds by that that thinking occurs by combining the new information with old information which is stored in memory in order to end up with new knowledge. Broadly speaking, the previous definitions share the same perspective and a common view concerning what thinking may be.

### 1.3.1. Thinking Skills

The variety of definitions of thinking has given rise to different views of what is needed for an effective thinking. Many of them agree that some skills should be performed in such a manner as to achieve a desired result which is reaching an effective thinking. Jones, Palinscar Ogle and Carr define a skill as a “*mental activity that can be applied to specific task*” (cited in French and Rhoder, 2011: 17), which means that skills are the operations that the individual’s thought goes through in order to deal with a given task or problem.

De Bono considers that “*thinking is no different from any other skill and we can get better at the skill of thinking if we have the will to do so*” (1982: 11). That is, he believes that thinking itself is a skill that could be improved by practice and learning. For De Bono, it is also important to differentiate between thinking as a skill and thinking as a matter of intelligence, this is why he assumes that “*thinking is the operating skill through which intelligence acts upon experience*” (ibid), and by that he wants to say that thinking is a skill through which intelligence is used.

French and Rhoder (2011: 17) claim that thinking skills are “*basic to the concept of thinking because they include what the thinker needs to do in order to accomplish the task*”. This means that they consider thinking skills as the different steps that the mind should go through in order to frame ideas and make sense of an experience to finally reach a given knowledge.

In the same context, Presseisen (1991) views thinking skills as the mental acts by which information and ideas are organized and take place. She believes that thinking skills consist of “*the mental manipulation of sensory input to formulate thoughts, reason about or judge*”

(cited in Presseisen, 1991: 56). That is to say, thinking skills consist of the mental process that is activated when perceiving information in order to comprehend and make judgment about it.

The same view is expressed by Beyer for whom “*thinking skills are the discrete, precisely delineated mental operations used in varying combinations as we think*” (cited in Assaf, 2009: 5), which means that these skills are the mental actions that are performed by the mind when thinking.

### **1.3.2. Classification of Thinking Skills**

There are various classifications of thinking skills; one of the most popular is the one which is based on the “*degree of complexity of the thinking task*” (French and Rhoder, 2011: 11). Among theorists who adopted this kind of classification, we find Benjamin Bloom (1956) who identified six types of cognitive thinking skills, which are *knowledge, comprehension, application, analysis, synthesis* and *evaluation*, ranked from the simplest level to the complex one (Moseley *et al*, 2005: 41).

Barbara Presseisen (1991) also relied on this way of classification to develop categories of thinking skills. She identified four levels of thinking skills which are: “the basic level” or what she called the essential thinking skills, “the complex level”, “the metacognitive level” and the “epistemological level”.

In this research, we are more interested in the essential thinking skills by evaluating the assessment sections of the EFL textbook *At the Crossroads*.

### **1.3.3. Essential Thinking Skills**

According to Presseisen (1991: 58), there are at least five cognitive categories of thinking skills that should be included in the taxonomy of essential thinking skills. They are:

“Qualification”, “Classification”, “Relationships”, “Transformations” and “Causation”.

These are organized from the simple element to the complex one as shown in figure 1 (p14).

### **a- Qualification**

This skill consists of “*finding unique characteristics of particular identity or description*” (Costa and Presseisen, 1991: 376), this means that learners grasp the sensory perception and recognize its meaning and characteristics. In other words, Qualification is the skill by which students identify the information that they receive basing on what they have learned or knew previously, such as giving a text to students who will comprehend what is inside using their background knowledge about the vocabulary that is used, or define the type of this text according to the characteristics that they have studied before. Indeed, no one can understand a piece of information without having any background knowledge that allows the process of recognition to happen. So this skill enables the connection between the previous and present data to clarify and give meaning to them. The action verbs allowing and helping to classify activities as involving the qualification skill are: identify, define, recognize, qualify, find, point out... etc.

### **b- Classification**

Costa and Presseisen (1991: 373) state that classifying means “*to sort into clusters, objects events or people according to their common elements, factors or characteristics. Including giving that cluster a label that communicates those essential characteristics*”. This means that this skill allows grouping items like things by kind or characteristics and determines to which category they belong to. It is a kind of analysis that students do to classify information. To do that, they try to compare the information and find what they are similar to or what they are different from. For example, giving different texts in class to students and asking them to give

the genre of each of them. Another concrete example, classifying birds, animals, fish to their species. The action verbs allowing and helping to classify activities as involving the Classification skill are: Compare, group, sort, distinguish, classify, rank ...etc.

### **c- Relationships**

Costa and Presseisen (1991: 376) define this skill as the act of “*determining regularity between different operations*”, this means that they view this skill as the ability to understand the usual relations between or among the existing things. This may happen, according to Presseisen (1991: 58) through “*analyzing, synthesizing or making logical deductions*”. So, broadly speaking this skill also includes analysis in a way that students make connections between the presented information to form a general whole or breaks down the information to figure out its constituents. A concrete example is to try to understand the logical link that exists between war and fear, between death and sadness. The action verbs allowing and helping to classify activities as involving the Relationships skill are: Analyze, synthesize, order, deduce, link, connect, relate, associate... etc.

### **d- Transformations**

*Transformations* skill involves “*relating known to unknown characteristics and creating meanings*” (Costa and Presseisen, 1991: 376), which means that this skill is performed by the ability to produce certain information under certain circumstances. In other words, thinkers basing on what they have as knowledge, try to produce possible knowledge that may fit with the current one. This skill concerns then the capacity of production with which students create new knowledge from a given situation such as writing an essay about a given subject. We can say that this skill has relation with creativity. The action verbs allowing and helping to

classify activities as involving the Transformations skill are: create, produce, generate, write, induce and perform... etc

### **e- Causation**

Costa and Presseisen (1991: 373) define *Causation* as “*the act or process that occasions or effects a result*”. In another work, Presseisen (1991: 58) explains that *Causation* refers to the act of “*establishing cause and effect and making assessments*”. This means that this skill concerns the ability of determining cause and effect, drawing conclusions and understanding the implied meaning to be able to make judgments and evaluating different situations, for example dealing with a task that asks students to give their opinions about something and explaining why, that is, arguing. Such as: what do you think about *At the Crossroads* textbook? Justify your answer. Does *At the Crossroads* textbook ameliorate students’ productivity? Justify your answer.

The action verbs allowing and helping to classify activities as involving the causation skill are: Justify, argue, evaluate, estimate, judge, assess, predict ... etc

## A Model of Thinking Skills: Basic Processes

**Causation-** establishing cause and effect, assessment:

Predictions

Inferences

Judgments

Evaluations

**Transformations-** relating known to unknown characteristics

Creating meanings:

Analogies

Metaphors

Logical inductions

**Relationships-** detecting regular operations:

Parts and wholes, patterns

Analysis and synthesis

Sequences and order

Logical deductions

**Classification-** determining common qualities:

Similarities and differences

Grouping and sorting, comparisons

Either/or distinctions

**Qualification-** finding unique characteristics:

Units of basic identity

Definitions, facts

Problem/task recognition

**From Simple to Complex Development**



(Presseisen, 1991:58)

**Figure 1: Presseisen's Model of Essential Thinking Skills**

After having dealt with the explanation of the essential thinking skills developed by Presseisen, we carry on our review of the literature by explain other points having a relation with our research. For instance, we consider the definition of textbook, textbook evaluation, and so on, mainly because our case study in the research concerns a given section in a textbook.

## **1.4. Textbook Definition**

A textbook is an important instructional material that most of teachers use in their classrooms in order to help themselves to achieve the desired goals. It is defined through a variety of resources by different scholars such as Huchinson and Torre. In this context, Hutchinson and Torres (1994: 315) suggest that “*The textbook is an almost universal element of [English language] teaching*”.

In the same context Hutchinson and Torres added that a textbook is “*an important means of satisfying the range of needs that emerge from the classroom and its wider context*” (cited in çakit, 2006: 6) and here it is clear that the authors regard textbooks as materials that play a vital role in fulfilling students’ needs. Indeed, they are considered as reference sources for them as they act as guides and facilitators, moreover they are seen as effective resources for self-direct learning, because students can use them while learning individually. In general, we can say that a textbook is perceived as a vital element that provides knowledge in the teaching and learning process.

### **1.4.1. The Role of Textbooks in ELT**

As we have already mentioned, a textbook in general and an ELT textbook in particular have a positive impact on the teaching and learning process, that is why several researchers focused on their importance and benefits in their works. For example, according to Saeid

(2013: 373) *“English language instruction has many important components but the essential constituents to many ESL/EFL classrooms and programs are textbook and instruction materials that are often used by language instruction”*. From this view we can deduce that a textbook plays a crucial role in ELT and EFL since it provides both teachers and learners with essential linguistic knowledge that can be very helpful in the teaching and learning process.

Furthermore, Tok (2010: 509) states that *“textbooks play a prominent role in the teaching/learning and they are the primary agents of conveying knowledge to the learner”*. Which means that Tok also considers a textbook as the basic element in ELT that is used by teachers as an instructional material which cannot be neglected.

### **1.4.2. Textbook Evaluation**

Textbook evaluation is an attempt to measure the value of the textbook in order to identify the particular strengths and weaknesses. In this context, in order to select the appropriate textbook researchers have developed some reference checklists that can be very useful in this context. For instance, Grant (1987) has suggested applying “catalyst” test which consists of eight criteria which are ordered as follows, *“communicative”*, *“aims”*, *“teachable”*, *“Available-Adds-on”*, *“levels”*, *“your impression”*, *“student interest”* and *“tried and tested”* (cited in Demir and Ertas, 2014: 244). In fact, Grant thinks that these criteria are necessary and indispensable for evaluating textbooks.

Other scholars such as Tomlinson and Masuhara (2004) claim that textbook evaluation *“involves measuring the value or (potential value) of a set of learning materials (textbooks) by making judgment about the effect of the materials (textbooks) on the people using them”*(cited in Pack, 2011: 5) . In other words, textbooks can be evaluated according to their effects on the learners in terms of effectiveness and reliability.

In addition, according to Hutchinson and Waters (1987: 97) textbook evaluation is an explanatory “*matching process: matching needs to available solutions*”. The definition is reinforced by Daniel Stufflebeam (1971) who defined it as a technique “*designed to assess and evaluate a program or material to sort out its strengths and weaknesses*” (cited in Nunan, 1992: 193). Additionally, in the context of textbook evaluation Rea-Dickins and Germaine (1994: 4) state that “*Evaluation is an intrinsic part of teaching and learning*”.

## **Conclusion**

In this chapter we have reviewed some key concepts related to our research topic which consists of the assessment of essential thinking skills. So, we have provided some explanations concerning what are *Assessment, Thinking, Thinking Skills, Textbook evaluation* and *Constructivism*.

## **Chapter Two: Research Design and Methodology**

### **Introduction**

This chapter is methodological; it describes the research design used to investigate the issue presented in the general introduction which consists of the evaluation of “check your progress” sections of the textbook *At the Crossroads* in relation to the thinking skills proposed by **Presseisen**.

The research design is composed of two sections. The first one is devoted to the procedures of data collection while the second one is dedicated to procedures of data analysis. The data collection section provides us with the description of the textbook *At the Crossroads*. Then, data analysis section deals with the description of the qualitative method used to interpret the gathered data.

### **2.1. Procedures of Data Collection**

The data collected are obtained from the evaluation of fifty seven tasks distributed over five assessment sections within the textbook *At the Crossroads*. To organize the data we have used a table to classify them according to the essential thinking skill each task performs.

#### **2.1.1. Description of the Textbook *At the Crossroads***

*At the Crossroads* is an official textbook of English laid down by the Ministry of Education in January 2005 for the first year students of Secondary Education. The overall aim of the textbook is to consolidate and extend three competencies acquired at the Middle School level which are interaction, interpretation and production. It is then assumed that students are already aware of the competency-based teaching and the learner-centered approach on which this textbook is based.

## **a) Organization of the Textbook**

The textbook consists of five units to be covered in some twenty hours' teaching each. Every unit involves four sequences entitled: Listening and Speaking, Reading and Writing, Developing Skills and Consolidation and Extension. In addition to that, there are three sections called: Stop and consider, Project Workshop and Check your progress.

The two first sequences, Listening and Speaking and Reading and Writing, are both divided into four rubrics which are : Anticipate, Listen and Check, Say it Clear and It's your turn for the former and Anticipate, Read and Check, Discover the Language and Write it Right for the latter. These two sequences are of the same pattern and aim at producing oral and written discourse.

The third sequence "Developing Skills" aims to improve students' ability to communicate in and outside school through enabling them to develop the listening, speaking, reading and writing skills and then combine these skills in problem-solving situations such as telephoning, conducting a meeting and writing a letter.

After this sequence, comes the Stop and Consider section which is regarded as a language reference section where language rules concerning grammar, syntax and phonology are introduced accompanied with exercises based on the implementation of grammar rules.

The fourth sequence, called Consolidation and Extension, is subdivided into two rubrics entitled Write it Out and Work it Out. The first aims to expand and consolidate all four skills especially the writing skill. The second makes students aware of problem areas in pronunciation and stress. This sequence takes into consideration the skill work presented in the previous Stop and Consider section and aims to reinforce it.

After that, there is the Project Workshop section, where students are asked to do a project where they are acquired to use all the skills they have learnt throughout the unit. To do that a checklist of instructions is provided to help them in the realization of the work.

To end the unit, a last section called *Check your Progress*, which is the corpus of our research work, is provided for the aim of students' self-evaluation. This section offers a series of activities that allow students to evaluate themselves about how much they have understood all what has been studied throughout the unit.

### **2.1.2. Description of the Table used to classify the data**

In order to figure out which category of the essential thinking skills is more highlighted in the tasks of *Check your Progress* sections, which are destined to evaluate students' attainments, we have used a table (see appendix 1) that will provide us with a clear classification of how Presseisen's five categories, which are Qualification, Classification, Relationships, Transformations and Causation, are distributed.

The table is divided into four dimensions. The unit's number and task's number are the two first dimensions which are on the vertical axis of the table then come the description of the task and the category or the level that is emphasized in this task which are also represented on the vertical axis of the table. In this respect, we will give in this table the description of each exercise that is in "Check Your Progress" sections, that is to say, what the exercise is about, and then we will present the category of essential thinking skills that it performs.

## **2.2. Procedures of Data Analysis**

This part involves the procedure of data analysis which is the use of the mixed methods to deal with the collected data from the corpus under investigation.

### 2.2.1. The Mixed Methods

*“The term “mixed methods” refers to an emergent methodology of research that advances the systematic integration, or “mixing,” of quantitative and qualitative data within a single investigation”* (PCMH Research methods series, 2013: p1). In order to carry out our study, we have used this research method to interpret and explore our data, indeed the use of qualitative method gave us the possibility to describe the activities under investigation and find out which cognitive level they perform and the use of quantitative method permitted us to gather data in numeric form, that is to say, finding the amount of each cognitive level that is performed by the these activities.

### 2.2.2. Calculating the Percentages

In order to calculate the percentage of each of the essential thinking skills categories that are performed by the exercises of Check your Progress section, we have proceeded to the use of the rule of three which is applied as follows:  $x = \frac{Z \times 100}{Y}$ .

The symbol x is the calculated percentage, z is the amount of one category of essential thinking skills and y is the amount of all the essential thinking skills categories. .

## Conclusion

This chapter has introduced the methodological design of our work study and presented the procedures of both data collection and data analysis. In the data collection part we have presented the textbook *At the Crossroads* and the table of classification that we have used to classify the essential thinking skills categories, whereas in the data analysis part we have introduced the Mixed methods, which combines both the Quantitative method and the

Qualitative method, then we have explained the rule of three which we have used in our research study to calculate the percentages.

## **Chapter Three: Presentation of the Findings**

### **Introduction**

This chapter is devoted to the presentation of the findings of our research about the implementation of the essential thinking skills, including *Qualification*, *Classification*, *Relationships*, *Transformations* and *Causation*, in “*check your progress*” sections, in the textbook entitled *At the Crossroads* which is designed for first-year pupils of Algerian secondary schools. In order to do our investigation, we have analyzed fifty seven tasks (57) that are included at the end of each unit of study as an assessment part.

### **3.1. Presentation of the Findings**

Our analysis takes into account the five assessment sections that are included at the end of each unit in the *At the Crossroads* textbook. These sections provide students with the opportunity to assess their performances through a series of tasks. Our aim is to analyze the tasks presented in the sections in relation to *the essential thinking skills* that are introduced by Barbara Presseisen and figure out which category of these skills is more highlighted. In order to present our findings; we have used tables and diagrams which will give more details and a clear picture about our results.

### 3.1.1. The amount of tasks in “*check your progress*” sections in *At the Crossroads*

units	N° of tasks in “check your progress” section
1-Getting through	15
2-Once upon a time	11
3-Our findings show	8
4-Eureka	12
5-Back to nature	11
Total	57

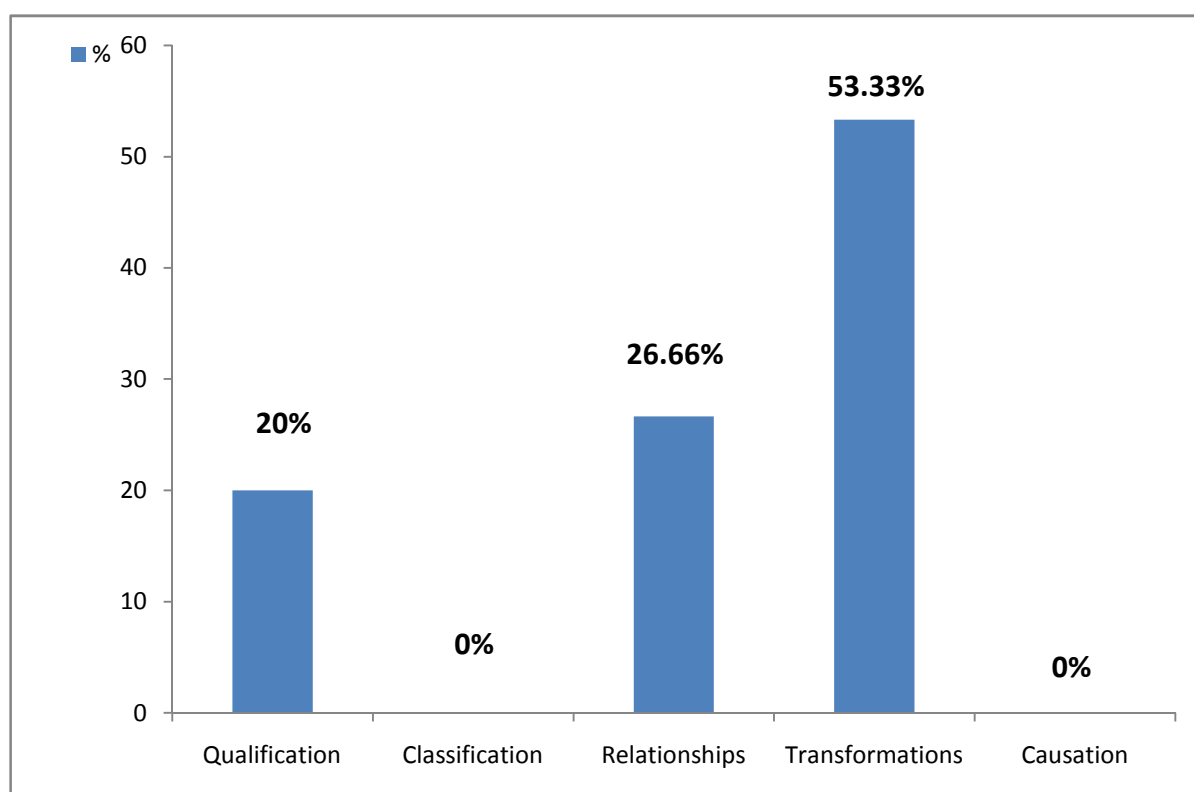
**Table 1: Number of tasks in “check your progress” sections**

Table1 shows that the textbook *At the Crossroads* consists of five units including *Getting through*, *Once upon a time*, *Our findings show*, *Eureka!* And *Back to nature*. At the end of each unit there is an assessment section which consists of a series of exercises. According to our research and as it is mentioned in table 1, the number of tasks presented in all the five assessment sections is fifty seven.

### 3.1.1. The amount of essential thinking skills implemented in “*check your progress*” tasks

### a- The First Unit Assessment Section

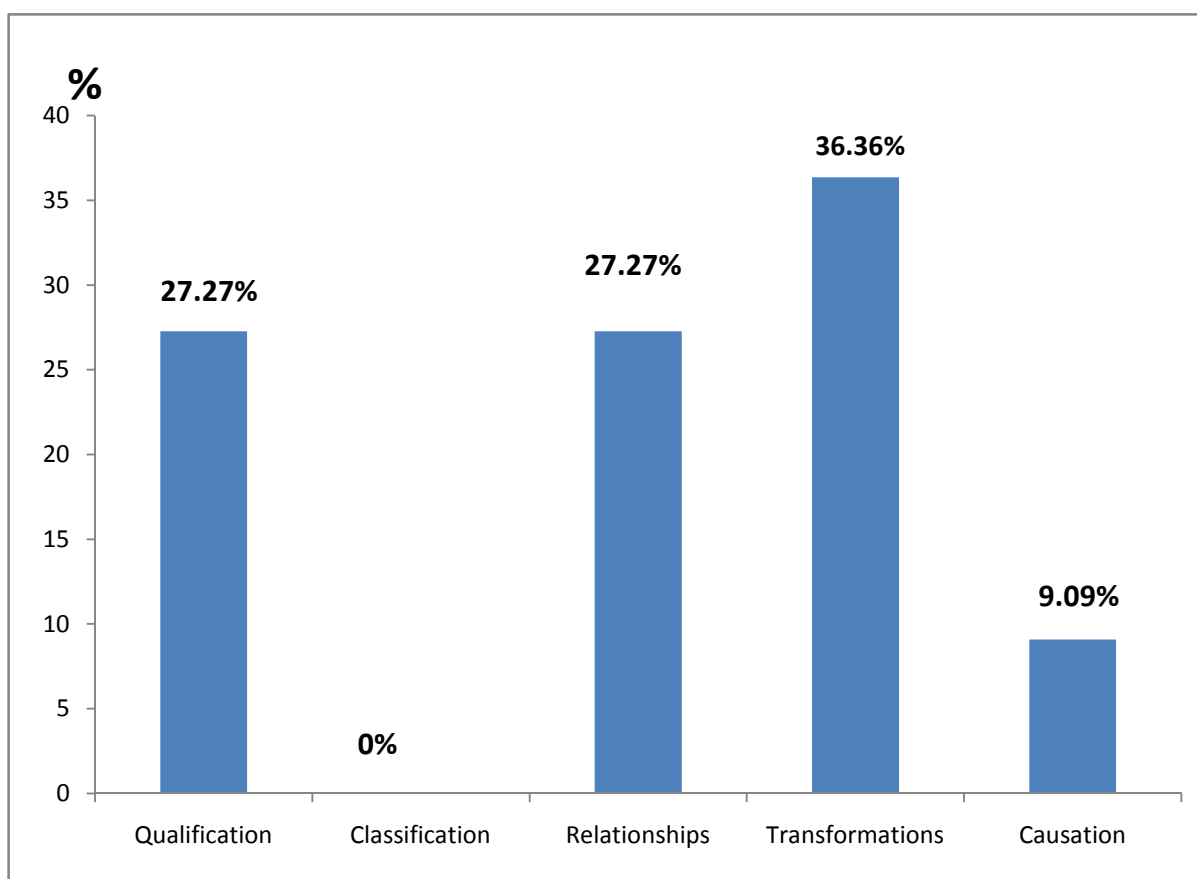
The results presented in diagram 1 reveal that the category that is the most present in the tasks of the first unit assessment part is *Transformations* with 53.33 %, then come *Relationships* and *Qualification* with 26.66 % and 20 % while *Classification* and *Causation* occur with 0 %.



**Diagram 1: Distribution of the essential thinking skills in the first unit assessment part.**

### b- The Second Unit Assessment Section

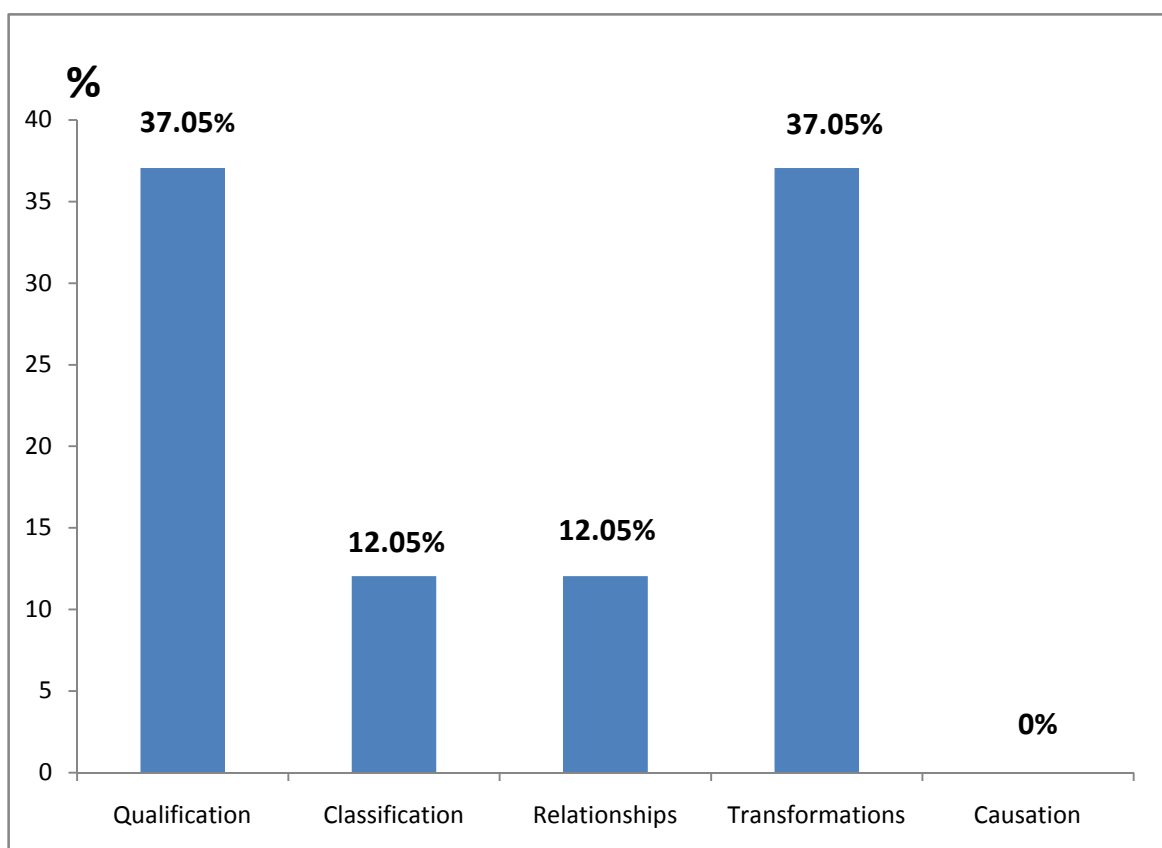
Diagram 2 shows that *Transformations* present 36.36 % of the totality and that both of *Qualification* and *Relationships* involve 27.27 %. After that we find that *Causation* and *Classification* respectively correspond to 9.09 % and 0 %.



**Diagram 2: Distribution of the essential thinking skills in the second unit assessment part.**

### **c- The Third Unit Assessment Section**

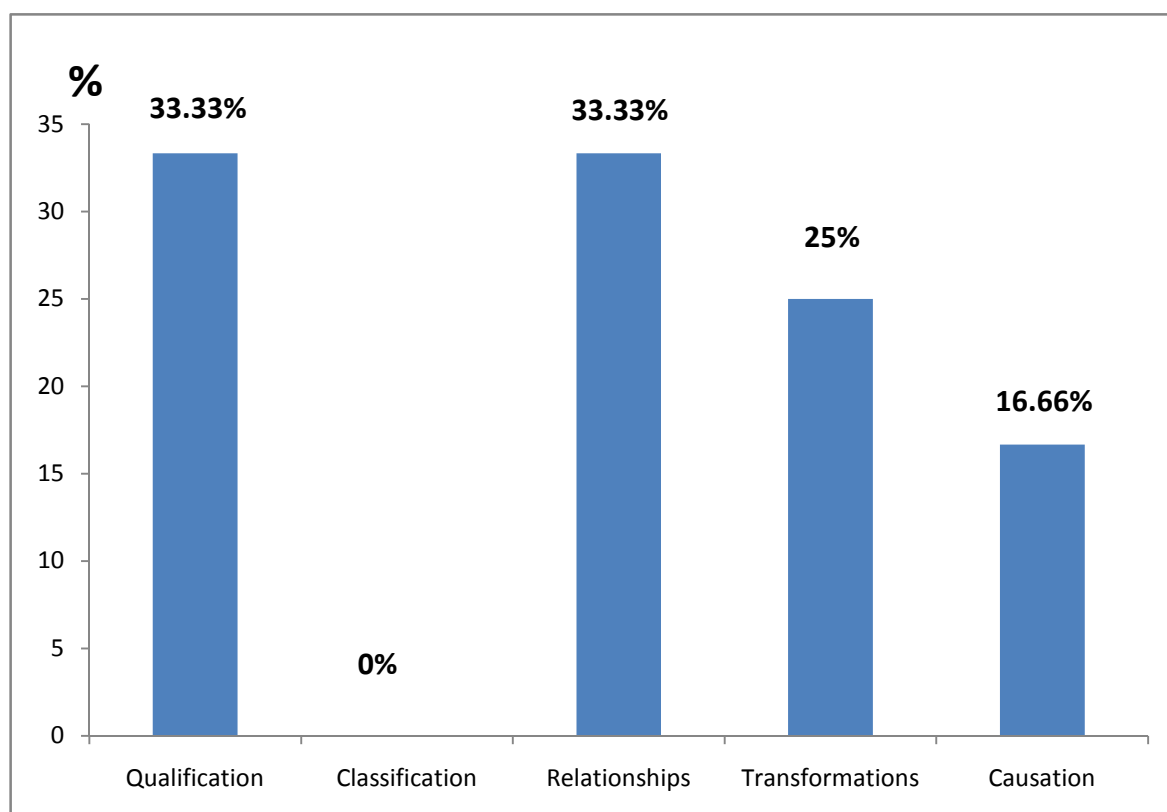
In the assessment section of the third unit, both *Transformations* and *Qualification* skills occur with 37.05 % while *Classification* and *Relationships* occur with 12.05 %. Concerning *Causation*, it is involved at 0 %.



**Diagram 3: Distribution of the essential thinking skills in the third unit assessment part.**

#### **d- The Fourth Unit Assessment Section**

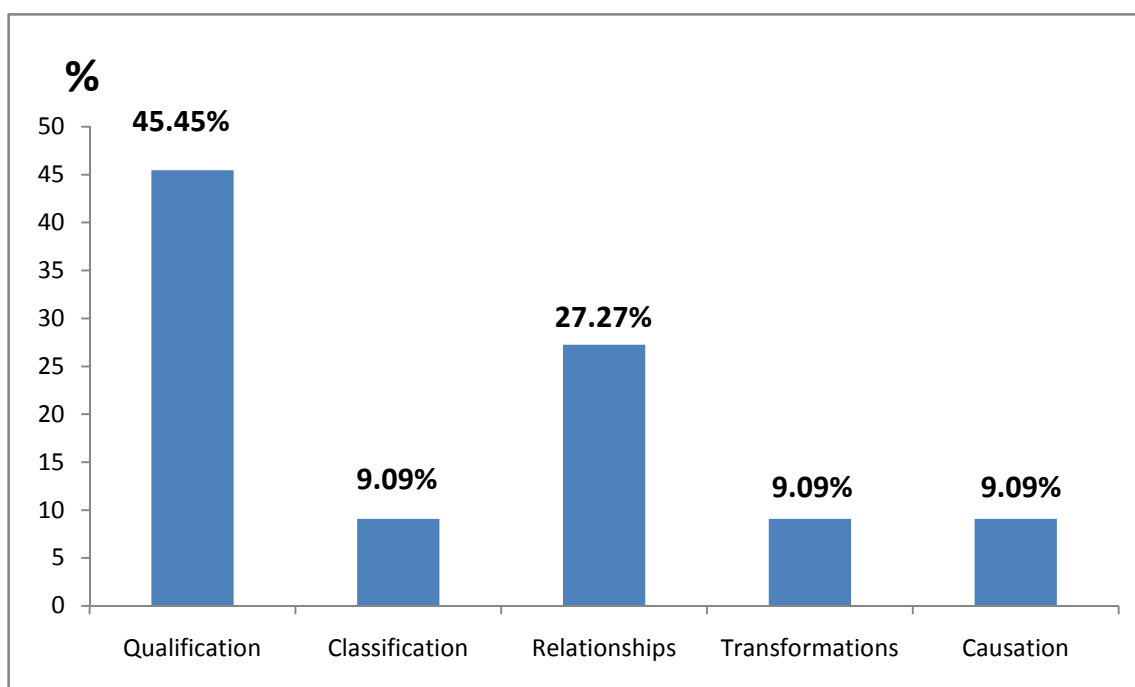
This diagram shows that the most essential thinking skill that is used in the fourth unit assessment part is *Qualification* and *Relationships* with 33.33 % for each of them. After that, we find Transformations with 25 %, causation with 16.66 %, then classification with 0 %.



**Diagram 4: Distribution of the essential thinking skills in the fourth unit assessment part.**

#### **e- The Fifth Unit Assessment Section**

As it is highlighted in diagram 5, Qualification is the most essential thinking skill that is performed by the tasks of this assessment section with a percentage that reaches 45.45 %. After that, we find *Relationships* skill which represent 27.27 % followed by *Classification*, *Trnsformations* and *Causation skills* with a percentage that correspond to 9.09 % for each one.



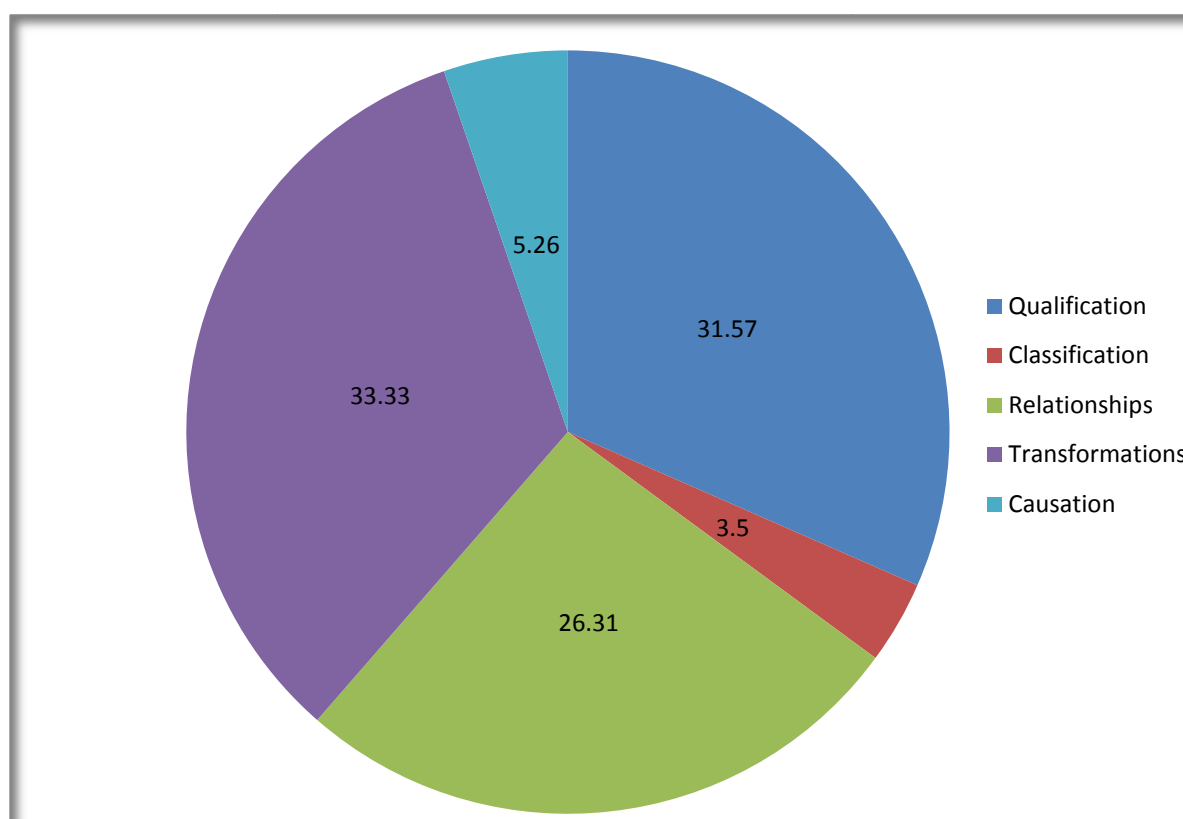
**Diagram 5: Distribution of the essential thinking skills in the fifth unit assessment part.**

### **3.1.2. The amount of essential thinking skills that are implemented in the assessment sections of the textbook**

<b>Essential Thinking Skills categories</b>	<b>N° of tasks that perform essential thinking skills categories</b>	<b>%</b>
<b>Qualification</b>	18	31.57
<b>Classification</b>	2	3.50
<b>Relationships</b>	15	26.31
<b>Transformations</b>	19	33.33
<b>Causation</b>	3	5.26
<b>Total</b>	57	100

**Table 2: Distribution of the essential thinking skills in the assessment sections**

Table 2 shows that the majority of essential thinking skills that are included in “*check your progress*” sections are *Transformations* with an amount that corresponds to 33.33 % presented through nineteen tasks. Then, comes *Qualification* with eighteen tasks which correspond to 31.57 %. After that we find *Relationships* at the third position performed by fifteen tasks which represent 26.31 %. *Causation* shows 5.26 % of the totality with three tasks, while *Classification* includes only two tasks, that is, 3.50 %.



**Diagram 6: Distribution of essential thinking skills in *check your progress* sections.**

## Conclusion

This chapter has presented the findings of our study about the implementation of essential thinking skills in *At the Crossroads* textbook. The corpus under investigation covers five assessment sections, entitled “check your progress”, that occur at the end of each unit. The results showed that the most essential thinking skill that is performed by the tasks is

*Transformations* then comes *Qualification* at the second position followed respectively by *Relationships*, *Causation* and *Classification*. All these results were represented in tables and diagrams that we will discuss in the next chapter.

## **Chapter Four: Discussion of the Findings**

### **Introduction**

The following chapter deals with the discussion of our findings reached after analyzing five assessment sections that are included at the end of each unit of *At the Crossroads* textbook. To do that, we have divided this chapter into four parts. The first one demonstrates whether Presseisen's essential thinking skills are represented within the tasks of the section under investigation or not. The second deals with how these skills are classified within the tasks, that is to say, we discussed which skill is focused on or neglected. The third one concerns demonstrating if the tasks under investigation reflect the constructivism view in order to show in the fourth part how much Presseisen's taxonomy accords with the constructivist approach.

#### **4.1. The implementation of essential thinking skills in the assessment parts of *At the Crossroads***

The findings obtained from analyzing the tasks of the five assessment sections show that all the five essential thinking skills can be found in the activities of these sections but they are unevenly distributed. The results reveal that the distribution of the skills is ordered respectively from *Transformations*, *Qualification*, *Relationships*, *Causation* to *Classification*.

#### **4.2. The classification of essential thinking skills in the assessment sections**

##### **4.2.1. Qualification**

The *Qualification* category of Presseisen's Taxonomy consists of the identification and description of the problem (Presseisen, 1991: 58). These two concepts refer to the process of recognizing and defining information or the task. That is to say, to know what the activity is about and determine all its basic aspects that will allow the student to understand it. This cognitive level corresponds to 'Knowledge' and 'comprehension' in Bloom's Taxonomy. The diagram six presented in the Results chapter shows that this category is developed with 31.57

% within the tasks of assessment sections of *At the Crossroads*. This percentage comes at the second position in the distribution of the essential thinking skills, which means that this category has been given great importance by the textbook designers. This is due to the fact that comprehension is crucial to provide further learning for the student since the academic progress of the latter depends on the ability to understand what is read and students “*who cannot understand what they read are not likely to acquire the skills necessary to participate in the 21<sup>st</sup> century workforce*” (Butler *et al*, 2010: 01).

These results show that *Interpretation*, one of the competencies that the textbook aims to develop, is much emphasized. Here it is important to remind that among the approaches that *At the Crossroads* textbook is based on, there is the competency-based teaching. Concerning the tasks that develop the *Qualification* skill, we cite as examples the following tasks.

**1- Fill in the blanks below with information from the blurb.**

Title of the book: \_\_\_\_\_

Author: \_\_\_\_\_

Four main events: \_\_\_\_\_

Setting: \_\_\_\_\_

(*At the Crossroads:70*)

**2- Find in the text the words that are closest in meaning to the following:**

A. Starts = \_\_\_\_\_ B. moving to = \_\_\_\_\_ C. racism = \_\_\_\_\_

D. Division = \_\_\_\_\_ E. courage = \_\_\_\_\_ F. comprehensible = \_\_\_\_\_

(*At the Crossroads: 70*)

In the first example we notice that students are asked to select information from a given blurb after reading the latter. This task reflects perfectly the concept of *Qualification* in the

sense that it allows students to have basic information about the text of the blurb. The same thing is reflected in the second example where students are asked to find in the text closest meanings to some words, the fact that allows them to have clearer understanding of the content.

#### 4.2.2. Classification

*Classification* category involves determining common qualities, grouping and sorting information, and making comparisons and distinctions (Presseisen, 1991: 58). This cognitive level corresponds to ‘*Analysis*’, in Bloom’s Taxonomy, where students “*differentiate, classify, group, distinguish, categorize and compare*” (Presseisen, 1991: 57) information. The *Classification* category occupies the last position with only 3.50 % within all the tasks of the assessment sections. This means that first year high school students are not prompted enough to develop this skill through comparing and classifying different situations. That is to say, the assessment sections do not include enough tasks that deal with the skill of differentiating things among other attributes and components. Among the few tasks that deal with the Classification skill we find the following one:

**1- Match the underlined letters in the box below with their corresponding sounds: /k/, /tʃ/ /ʃn/ and /ʒn/.**

<i>Destruction</i>	<i>erosion</i>	<i>pollution</i>	<i>chemical</i>	<i>nation</i>	<i>channel</i>	<i>ocean</i>
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**(At the Crossroads: 164)**

This example then shows how *Classification* skill can be performed through tasks. Indeed, in this case students are asked to classify the underlined letters according to their corresponding sounds, so it is clear that this type of tasks prompts students ability to categorize different sort of information.

### 4.2.3. Relationships

*Relationships* skill is seen by Presseisen (1991: 58) as “*detecting regular operations*”. This means that students should be able to break wholes into parts and patterns to analyze situations. This category also corresponds to Bloom’s ‘*Analysis*’ level in his taxonomy where he claims that in addition to classifying knowledge, students also connect and relate this knowledge to detect parts from whole (Presseisen, 1991: 58). The results show that this cognitive level is developed with 26.31 % and occupies the third position in the distribution of the essential thinking skills ***Check your progress*** sections of the textbook. This percentage indicates that this skill is enough stressed compared with the other categories, the fact that let us say that students have some opportunities to analyze situations, break down elements into smallest units and discern relationships between the constituents to understand how things work or how these constituents are related to form a whole. To illustrate this concept, we give the following examples:

***1- Join the sentence in column A with sentences from column B using the conjunction when to get complex coherent sentences. Use the past simple.***

<i>Column A</i>	<i>Column B</i>
<i>1. The rain stops.</i> <i>2. He sees the lion.</i> <i>3. She finishes reading the letter.</i> <i>4. The mouse sees the cat.</i>	<i>A. It runs away.</i> <i>B. She tears it into pieces.</i> <i>C. He panics.</i> <i>D. We go out to play football.</i>

***(At the Crossroads: 71)***

***2- The parts of the story (A-F) below are not in order. Re-order them to get a coherent story.***

- A. So the eagle lived and died a chicken, for that's what he thought it was.*
- B. All its life the eagle did what the backyard chickens did, thinking it was one of them. It scratched the earth for worms and insects. It clucked and cackled. And it would thrash its wings and fly a few feet into the air.*
- C. "That's the eagle, the king of the birds", said its neighbor. "It belongs to the sky. We belong to the earth- we're chickens."*
- D. A man found an eagle's egg and put it in the nest of a backyard hen. The eaglet hatched with the brood of chicks and grew up with them.*
- E. Years passed and the eagle grew very old. One day, it saw a magnificent bird far above in the sky. It glided majestically hardly moving its strong golden wings.*
- F. The old eagle looked up in admiration. "Who's that?" it asked.*

**(At the Crossroads: 72)**

These tasks above incite students to think about the kind of connection that exists among the elements that are given in order to form a whole which consists of coherent sentences in the first task and coherent story in the second one.

#### **4.2.4. Transformations**

This skill is the most highlighted in the tasks of the assessment sections compared with other categories. It is developed with 33.33 %. *Transformations* skill is about “*relating known to unknown characteristics and creating meanings*” (Presseisen, 1991: 58). This category may correspond to ‘*Synthesis*’ level in Bloom’s Taxonomy, a level where students are asked to “*produce, propose, plan, hypothesize or construct*” (Presseisen, 1991: 57) knowledge.

Broadly speaking, to develop this skill students are asked to answer open-ended questions and do problem solving tasks, these allow them to foster their imagination to be more inventive and creative to come up with new ideas and solve everyday problems, a fact that plays a critically important role in learning and personal development as well as building self-esteem, this is why we find that the textbook designers favored the development of this skill in the assessment sections more than the others since it has many advantages to students self-

development. So it is not surprising to figure out that the results gathered show that the *Transformations* skill is developed a lot in the activities (33.33%) since it is considered one of the three competencies that the textbook is meant to develop due to its benefits. Among the tasks that implement this thinking skill, we find the following ones:

**1- Write a letter of about 15 lines to a pen-friend of yours following the plan bellow.**

- *Introduce yourself.*
- *Mention three things you like doing, and the times of the day at which you like doing them.*
- *Mention three other things you don't like doing. Explain why.*
- *Talk about your preferences in matters of clothes, food, etc.*
- *Talk about your ambition. (What you would like to be later?).*
- *Include an appropriate ending.*

**(At the Crossroads: 43)**

**2- Complete one of the sentences below with three sentences of your own to set the scene for an imaginary story. Use the past simple, the past continuous and conjunctions while and when.**

- A. When we left home that morning, the sun\_\_\_\_\_.
- B. It was one of those beautiful spring afternoons in may.\_\_\_\_\_.

**(At the Crossroads: 71)**

**3- Use the information in the box below to write a short description of our planet Earth.**

Third planet from earth – shape: spherical – flat at poles – surface = 150 million km<sup>2</sup>.  
70 % of surface = water – distance from the sun = 149,500,000 Km  
Circumference = 40,070 km – equatorial diameter = 12,756 km  
Rotation period = 23 hours 53 minutes 4.1 seconds  
Year: complete orbit = 365 days 51.48 minutes 46 seconds  
Atmosphere: 78 % nitrogen; 20.95 % oxygen; 0.93 % argon; 0.03 % carbon dioxide;  
other gases: neon, etc.

In these three tasks, we notice that students' productivity is enhanced. Indeed, they incite students to create something new from some notes that are given, such as it is in the third task, and relying on what they have studied before such as it is in the first task where it is asked to write a letter that includes forms of expressing preferences and the second task where it is asked to imagine and write a story using the past simple and past continuous.

Interestingly, the skill of *Transformations* refers to the ability of the student to produce new knowledge and thoughts relying on his or her prior knowledge. It is more about generating ideas or producing thoughts which are valuable. In language teaching, teachers tend to provide students with challenging tasks to help them to develop this skill. For example, asking them to produce written products such as writing a poem, a short story or a metaphor and spoken products such as making an interview (cited in Gouali and Moucer, 2015).

#### **4.2.5. Causation**

*Causation* is the level where learners establish cause and effect and make assessments (Presseisen, 1991: 58). This category corresponds to 'Evaluate' in Bloom's Taxonomy. With this skill, students should be able to evaluate and think critically about a given situation and judge its value. The results show that *Causation* skill is not developed a lot in the tasks of the assessment sections since its percentage is only 5.26 % of the whole. This means that students are not given enough opportunities to practise this skill, which will limite them at the end of their learning process to Transformations or production without being able to criticize and judge other works to come out with a critical assessment. Among the few tasks that develop *Causation* skill we find the following:

**1- Use the notes about Charlie Chaplin in the box below to write a short biography. Use link words such as ‘...later’, ‘at first’, ‘after’, ‘before’, etc. and the simple past tense. End your biography with your appreciation of Chaplin’s films.**

1889 – Born April 16, in London

Mother

Father

} Very poor/ music hall performers

1894- Started clog dancing and singing for money

1904 – Joined a travelling theater company and immigrated to America

1910 – A film director offered him a role in a film.

1914 – Became a film director himself

Made funny films.

1977 – Died in Switzerland

**(At the crossroads: 72)**

**2- Which of the following concluding sentences best complete the paragraph in the exercise 5 (p133)? Justify your answer.**

A- Moreover, the church opposed the new theory because the Bible said that the Earth turned around the sun. Galileo was obliged to say that he was wrong in order to escape the fire of the Inquisition.

B- However, opposition to the new theory that the earth moved around the sun came from the church authorities. But this hostility did not last long because Isaac Newton definitely explained the laws of planetary motion.

**(At the Crossroads: 133)**

In these examples, we find that students are asked to give their appreciation of Chaplin’s films in the first task and justify their choice in the second one, that is to say, students are

incited to value, estimate and judge something and argue their opinion or choice. In other words, these tasks aim to train students' *Causation* skill.

### **4.3. Constructivism in '*Check Your Progress*' Sections**

The collected data show that among all the five essential thinking skills, the most highlighted one is *Transformations* skill with a higher percentage of implementation (33.33%). This result shows that the textbook designers gave more importance to the production skill in this part where it is assumed that students evaluate themselves how much they have assimilated their lessons through doing specific exercises.

Emphasizing this skill accords with the constructivist view of knowledge where students are intended to construct their knowledge on their own. That is, "*knowledge must be constructed by the learner*" (cited in Aimeur, 2011: 18) who is meant to connect his or her previous knowledge to new information to build new knowledge. In this sense, most activities that are included in the assessment parts of the textbook tend to foster students to be active in their learning and encourage them to build new ideas relying on what they have done previously in the class. For example, among those activities which invite students to train their production skill or as it is called by Presseisen *Transformations* skill, we find:

***1- Rewrite the newspaper headlines below to make them more attractive. Use extreme adjectives instead of ordinary ones.***

- A. *Very Good Results for Manchester united.*
- B. *Very Cold Temperatures in the North.*
- C. *Very Nice Places to Visit in the Sahara.*
- D. *Reading and Writing Standards 'Very Bad', Says Inspector.*

***(At the Crossroads: 41)***

***2- Use the cues below to write a paragraph of about 10 sentences to say what will happen if we continue to pollute our environment.***

*Danger of pollution / grow / rapidly*  
*If / continue / pollute / air / the / climate / change*  
*If / climate / get / warmer / greenhouse effect*  
*Diseases / natural disasters*

**(At the Crossroads: 164)**

By considering the previous examples, we realize that students are asked to write new ideas relating on some given information. In the first exercise, they are solicited to imagine and create a new way of presenting given newspaper headlines in a way that makes them more attractive, and within the same context, we find that in the second example, the task is about writing a paragraph about pollution using some key words. This type of writing is not easy since it requires having background knowledge such as knowing what the extreme adjectives for the first example are and acknowledging the cues given in the second one. Indeed, we can notice that the principle of constructivism, which consists of making students more active by supporting the interaction between students' prior knowledge and new experiences, is clearly represented by the tasks of these sections, that is to say, with those kinds of exercises, students actively build knowledge "*by integrating new information into what they have previously come to understand, revising and reinterpreting old knowledge in order to reconcile it with the new*" (cited in Aimer, 2011: 18).

So, through the previous examples and the findings that show that *Transformations* skill has the highest amount of percentage, we easily can deduce that the constructivist view of learning is underpinned by *check your progress* sections which are the parts that are dedicated to students' self-evaluation.

#### **4.4. Essential Thinking Skills Levels and Constructivism**

Presseisen's taxonomy of essential thinking skills contains four levels of higher order thinking and only one level of lower order thinking. The first ones consist of: *Classification*,

*Relationships, Transformations, and Causation*; whereas the second one consists of the *Qualification* skill. Thus, according to the results, we deduce that the category of high levels is more represented (68.4 %) than the lower level category (31.57 %) in *check your progress* activities, which means that these parts of the textbook focus on developing two main competencies (Interpretation and production) among the three ones that are intended by the program to be flourished on students focusing more on the production skills especially *Transformations*.

Indeed, the textbook *At the Crossroads* is based on the Competency Based Approach and “CBA is learner-centered in that it regards learners as being responsible and active agents in their learning process” (Hamrit, 2013: 35), which means that students, at the end of the unit, should be able to interpret given information and create another knowledge starting from the old one; and this concept fits exactly with the constructivism approach. So it is obvious to say that the textbook *At the Crossroads* is made up through relying on the constructivist theory and the sections *Check Your Progress* are no exceptions.

Concerning the Presseisen’s taxonomy, we notice that it gives more emphasis on the higher thinking skills than the lower thinking skills as the number of the first is quite higher than the second. This means that this taxonomy of learning encourage the students productivity through insisting on developing the four thinking skills that stimulate the learner’s creativity in a way that *Classification* and *Relationships* skills deal with analysis in all its kinds, *Transformations* skill incites students to form new knowledge and *causation* skill deals with the capacity of judging and evaluating.

Thus, it is clear that Presseisen’s theory carries favor to the constructivism approach, so this is why we find that all the skills introduced by this taxonomy are well present in the tasks of the assessment parts in *At the Crossroads* textbook.

## Conclusion

This section has been devoted to the interpretation of the findings reached by our investigation of the assessment parts called *Check your Progress* in *At the Crossroads* textbook in order to provide answers to the question we have asked in the Introduction.

In this analysis, we found that one among the hypotheses that we have proposed is actually true. Indeed, we have concluded that the assessment parts of the textbook encourage the essential thinking skills that are proposed by Barbara Presseisen, but they are not equally included in the exercises since some skills are more highlighted than the others. In fact, we noticed that *Transformations* skill is the one which is more presented, then, we find respectively, *Qualification*, *Relationships*, *Causation* and finally *Classification* with the lower percentage. As for lower and higher levels, we found that all higher thinking skills together are more represented within the tasks than the lower thinking skill.

As a result of this analysis, we also assumed that Presseisen's taxonomy, which is made up of four higher order thinking skills in addition to one lower order level, emphasizes the learner's creativity and productivity, the fact that fits perfectly with the approach of constructivism and its principles since both of the taxonomy and constructivism favor the active learning process.

## General Conclusion

This study is concerned with investigating the implementation of essential thinking skills in *At the Crossroads* textbook which is designed for first year students at the secondary school. It focuses on the evaluation of the assessment sections *check your progress* which are presented at the end of each unit of the textbook, and this in relation to the essential thinking skills proposed by Presseisen (1991). To deal with this issue, we analyzed fifty seven tasks by relaying on the taxonomy of essential thinking skills presented by Barbara Presseisen. The latter consists of five cognitive levels which are *Qualification*, *Classification*, *Relationships*, *Transformations* and *Causation*.

The aim of this research was to evaluate the assessment sections *check your progress* presented at the end of each unit of study of the textbook *At the Crossroads*. This evaluation sought to check whether the essential thinking skills are reflected in the tasks and taken into consideration.

To conduct our investigation, we used the mixed method research to obtain the needed data. Our corpus involves fifty seven tasks which we have organized in a table according to their cognitive categories. As well as, the rule of three in order to count the percentages and obtain the necessary results. Also, we have used diagrams and a pie chart for the purpose of being clearer and organized while showing the results.

The descriptive analysis of the obtained data showed that the most emphasized cognitive level is *Transformations* with 33.33 %. This means that learners in this level are encouraged to produce knowledge and construct new meaning. This helps them to be creative and actively involved in the learning process. As well as, *Transformations* is the skill by which learners can reveal their cognitive abilities and competences. This level is the most developed in the

textbook assessment sections since it is regarded by educators as a basis for developing learners' creativity and ability to solve problems. Besides learners, in this stage, have a great opportunity to discover new knowledge and information.

In the second position there is the *Qualification* category that represents 31.57 %. This level consists of understanding meanings and identifying concepts. Moreover; it has a great importance because it is the basis of all other skills. For this reason the designers developed it in a great amount in the textbook.

We carry on our classification with the skill of *Relationships* which occupies 26.31 %. That is to say, this skill is also widely emphasized compared with the others. Then, in this part of assessment students have the opportunity to analyze concepts and doing operations such as breaking down elements into small units.

In the fourth place we find the skill of *Causation* with 5.26%. That is to say, this skill is neglected in the sense that students are not given the opportunity to be critical thinkers who are able to judge, value, and criticize.

In the fifth and the last position, we find the skill of *Classification* which occupies only 3.50 %. This skill involves making comparisons and distinctions to determine to which category the information belongs to.

Moreover, we notice that the tasks, presented in the assessment sections of *At the Crossroads*, are in accordance with the constructivist approach of teaching and learning. In fact, this view aims to teach students to think creatively and it seeks to stimulate them to play a central role in the learning process. In this respect most of the analyzed tasks of the assessment parts in *At the Crossroads* textbook aim to develop learner's productivity and creativity.

Furthermore, we can answer our research question by confirming one of the proposed hypotheses. First, after the discussion of the results we infer that the essential thinking skills of Barbara Presseisen are encouraged in the assessment sections of the textbook *At the Crossroads*. Secondly, all the essential thinking skills are implemented in the sections “*check your progress*” of the textbook. Thus, the essential thinking skills of Barbara Presseisen are developed in a satisfactory way in the assessment parts. However, more focus is on higher order thinking skills mainly *Transformations* skill. Concerning the lower order of the essential thinking skill, which consists of *Qualification*, it is also highly taken into consideration since it occupies the second position among the other categories in the assessment sections.

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**Appendix 1** : The Essential Thinking Skills involved in the tasks of *check your progress* sections

Unit	Task's number and page	Description of the task	Implemented Essential thinking skills
Unit One : Getting Through	T1.p40	Fill in the blanks with information from a text	Qualification
	T2. P40	To extract the name of ingredients used to make an Indian pudding from the text	Qualification
	T3. p 40	What do the words in bold refer to in the text	Qualification
	T1. P40	Rewriting a recipe in order to make the process of making Indian pudding more explicit	Transformations
	T2. P40	To write sentences using the frequency adverbs between brackets	Transformations
	T3. P41	Writing questions to get the information in bold	Relationships
	T4. P41	Use information in the ad and modals to write new sentences	Transformations
	T5. P41	Fill in the blanks with 'in order to', 'to' and 'so as to'	Relationships
	T6. P41	To rewrite the news paper headlines to make them more attractive using extreme adjectives.	Transformations
	T7. P42	Fill in the blanks with making necessary changes	Transformations
	T8. P42	Turning informal requests into formal ones.	Transformations
	T9. P42	Matching sentences with other sentences that continues each of them	Relationships
	T10. P42	To write a short ending to a given email	Transformations
	T11. P43	Writing a letter to a pen-friend	Transformations
	T1. P 45	Fill in the blanks with making necessary changes	Relationships

Unit Two: Once Upon a Time	T1. P70	To choose the right answer	Qualification
	T2. P70	Fill in the blanks with information from a blurb	Qualification
	T3. P70	To find synonyms to given words from a text	Qualification
	T1. P70	Writing a news story using past simple or past continuous	Transformations
	T2. P71	To complete sentences with other sentences of your own to get a coherent narrative	Transformations
	T3. P71	Matching sentences from column A with sentences from column B	Relationships
	T4. P71	To write a diary using the sentences given in a table	Transformations
	T5. P71	To complete the sentences with sentences of your own to produce an imaginary story	Transformations
	T6. P72	Reorder the sentences to get a coherent story	Relationships
	T7. P 72	write a biography about Charlie Chaplin and give your appreciation of his films	Causation
	T1. P75	Fill in the blanks with making necessary changes	Relationships
Unit Three: Our Findings Show	T1. P101	Find synonyms	Qualification
	T2. P101	To read the text and to draw a curve on the graph	Qualification
	T1. P102	To complete the task with making necessary changes	Transformations
	T2. P102	Writing questions to given answers	Transformations
	T3. P102	To write sentences using adverbs	Transformations
	T4. P102	Reordering the sentences	Classification
	T5. P103	Description of the graph	Qualification
	T1. P106	Fill in the blanks with making necessary changes	Relationships

Unit Four: Eureka !	T1. P132	Looking at the picture and guessing who is the man in it	Qualification
	T2. P132	Check the right answers	Qualification
	T3. P132	Reading the text and answering questions about it	Qualification
	T4. P132	circle the right answer and justify your answer	Qualification Causation
	T5. P133	Reorder sentences to get a coherent paragraph	Relationships
	T6. P 133	Choose the best concluding sentence to complete the paragraph then justify your choice	Causation
	T7. P133	To cross out the definite article “the” where it does not fit	Relationships
	T8. P134	To use given words, to write three sentences using the future perfect	Transformations
	T9. P134	To improve the style of the text by using ‘in’ and ‘with’	Transformations
	T10. P134	To write three questions to get the information in bold in the box	Relationships
	T11. P134	To write a paragraph to describe our planet Earth	Transformations
	T12. P37	Choosing appropriate words with making changes to fit the sentences	Relationships
Unit Five: Back to Nature	T1. P162	To complete the pie chart using information given in the text	Qualification
	T2. P162	To find words that fit with given definitions	Qualification
	T3. P163	Fill in the blanks with however, but, though in addition	Qualification
	T4. P163	Fill in the blanks with articles	relationships
	T5. P163	To give the reason of the use of some words in the text	causation
	T6. P163	Adding the missing punctuation to the paragraph	Relationships
	T7. P164	Matching the underlined letters with their corresponding sounds	Classification

	T8. P164	Writing words using phonetic scripts	Qualification
	T9. P164	Use of given words to write a paragraph	Transformations
	T10. P164	Matching expressions with their meanings	Qualification
	T11. P167	Fill in the gaps with making necessary changes	Relationships