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UNDERSTANDING CRITICAL THINKING AS A COGNITIVE APPROACH TO PRODUCTIVE LEARNING AND RESEARCH PARADIGM IN ELT / EAP CLASSROOM

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Abstract:
Critical thinking skills in 21st Century (CTs) is a global movement and policy making to study the effective factors that make the educational system efficient. The latter is still built around a debate of methodology and application in Congolese educational frame-work. In fact, ELT and EAP teachers have been found not to have enough skills in creativity in innovating their lessons when attempting to guide learners in English Language Learning. On the one hand, some teachers, novice and practitioners quit the teaching career since they find it mostly difficult and others resist to participate in the curriculum development. On the other hand, students who have been involved in Academic English Language Classroom learning for 5 Years end up by not sensibly developing their communicative competence. Consequently the teachers tend to accuse the learners of inability to perform in satisfactory way. This attitude is due to teachers' automatic application of traditional methods, such as, grammar translation, audio-lingual method, total physical response, counseling learning, communicative methods, and others. A large number of researchers have been writing in this area such as the case of Parham Aarabi (2011) with Art of Lecturing, Ruth Pickford (2004) with primary role of lecturer, Keerthi Gopinath (2014) teaching as a teacher controlled and information centered approach yet not enough attention has been given to critical thinking skills etc, this article has enriched the debate by strongly appealing to ELT and EAP teachers, learners and trainee teachers and teachers and applied linguists to a paradigm shift from inactive to productive learning with Critical thinking as a cognitive approach which enables learning to be more enjoyable, productive and working towards the ultimate academic goals of participative and productive curriculum development. Since DRC educational system is built upon lecturing method whereby the teacher's task is simplified as self-centered and dominating approach, this in turn will not be conducive

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to an enjoyable learning environment. The present paper raises the question of how critical thinking skills connect with productive learning. To meet this question, the study has applied qualitative method grounded in classroom observation, interviews, learning theory criticism. As a result, Critical Thinking Skills have been viewed as a flexible framework that acts as practical tool for planning and developing progressive appropriate classroom materials that encourage effective and active learning, and thus enhance more active learning. Therefore, they help students to become more productive in Listening, Speaking, Reading, and Writing Skills as well as developing learning ability, professionalism, work ethics, team work, collaborative learning, and applying technology, problem-solving and promote students' leadership. In doing so, furthermore, teachers may design courses that will take students from one cognitive level to the next and develop their critical thinking skills in which more emphasis is placed on learner-centered practices showing sensitivity to individual differences among students, including both teacher's and student's role-play engagement in lesson comprehension and use towards problem-solving, in-depth analysis, creativity and decision-making.

Keywords: critical thinking, cognitive, active learning, ELT, EAP (English for Academic Purpose), HOTS, LOTS

1. Introduction

Critical Thinking Skills in current 21st Century has been viewed by many scholars in institutions of higher education as an approach enabling students to turn their experience into learning. It is essential since it helps students to be better in listening, speaking, reading, and writing as well as develops learners' ability to professionalism and work ethics, team work, collaborative learning, applying knowledge to problem–solving, applying technology and promotes students' leadership. Teaching is focused on knowing ''how to learn'', rather than ''knowing what to learn'' aiming to develop student's capacity to think and act creatively, to meet challenges positively and effectively and show initiative and enterprise in how students think and learn as stated by Robert Fisher. In spite of disparities of thoughts with different oriented teaching paradigms of some scholars such as Parham Aarabi (2011) with Art of Lecturing, Ruth Pickford (2004) with primary role of the lecture, Keerthi Gop Inath (2014) teaching using a teaching controlled and information centered approach, the issue of learning is still debatable in Congolese classroom. While the question of Academic English Language teaching methodology and application to meet problem solving still poses problem, lectures in DRC often emphasize on authoritative dominant teaching in which teachers communicate knowledge and students memorize material and the lecturer controls what happens in the classroom and he or she is the only one who speaks more continuously to a group of students on a particular subject from the start until the end. Therefore, students spend 5 years in class with no communicative competence

achievement. On their part, the teachers accuse students of inability to perform ignoring that the lecturing scenario does not benefit them, since the students' role is ignored, and the latter are not placed at core center of the learning to manipulate and participate actively and creatively in the lesson. Stern, H. H. (1983:472) assumes that the dissatisfactions and failures of teachers with a single method or lack of method in learning have contributed to constant critique of methods and demand for new reform and emphasis.

This paper has enriched the debate by suggesting to a teacher, or novice practitioner involved in ELT to frame his teaching based on Critical thinking taxonomy features. The work has raised a question of how teaching could solve the problem of passive learning and how teaching and learning are more participative. The study has applied classroom observation, interviews and learning theory criticism as basically qualitative research involved in the analysis and argumentation of data. The findings reveal that cognitive thinking skills are needed by the students in learning specific materials. Thus, critical thinking skills as an essential component in cognitive approach is needed to solve passive learning problem since it is built upon the existing theory and best practices in cognitive development, effective learning environments, and outcomes based assessment which provides teachers with useful teaching framework to more students and lecture based courses toward an active learning environment in DRC ELT classroom context.

2. Discussion

Following the investigation along with any of the axes in Figure 1 and 2 below, leads an ELT Teacher scholar or a critic to get involved in the following questions and issues:

- How Critical thinking vectors connect with active learning?
- How critical thinking finds reliable application in ELT?
- How does Critical thinking taxonomy resolve passive learning?
- How does critical thinking vector connect with competence-based learning?

Dealing with the questions above, two or more alternative answers are possible:

First, thinking is a very structured process having several functions such as explanation, forming concepts, critical and creative nature, decision making and problem solving.

Second, Critical Thinking provides opportunity for reflection, communication and students' understanding from different perspectives.

Third, it engages students in learning from a new, meaningful perspective. Furthermore, it helps students to learn to develop arguments and approach issues from different points of view.

Next, teachers in the DRC who do not apply thinking skills in classroom teaching encounter dilemma, and find the teaching career difficult and inappropriate for them, especially when prior dealing with ELT classroom. Since the lecture format of learning is a popular approach to content delivery in higher education in DRC; however, it

frequently does not encourage active learning or critical thinking. Thus, a teacher should create a safe environment where failure is just another opportunity to try again and improve. Creating a class culture where multiple solutions are possible leads to a step toward student-centered approach to teaching which provides substantial learning and supported constructive role in the learning process.

Figure 1: Vectors in Critical Thinking taxonomy as the reflection of qualitative research in ELT (English Language Classroom)

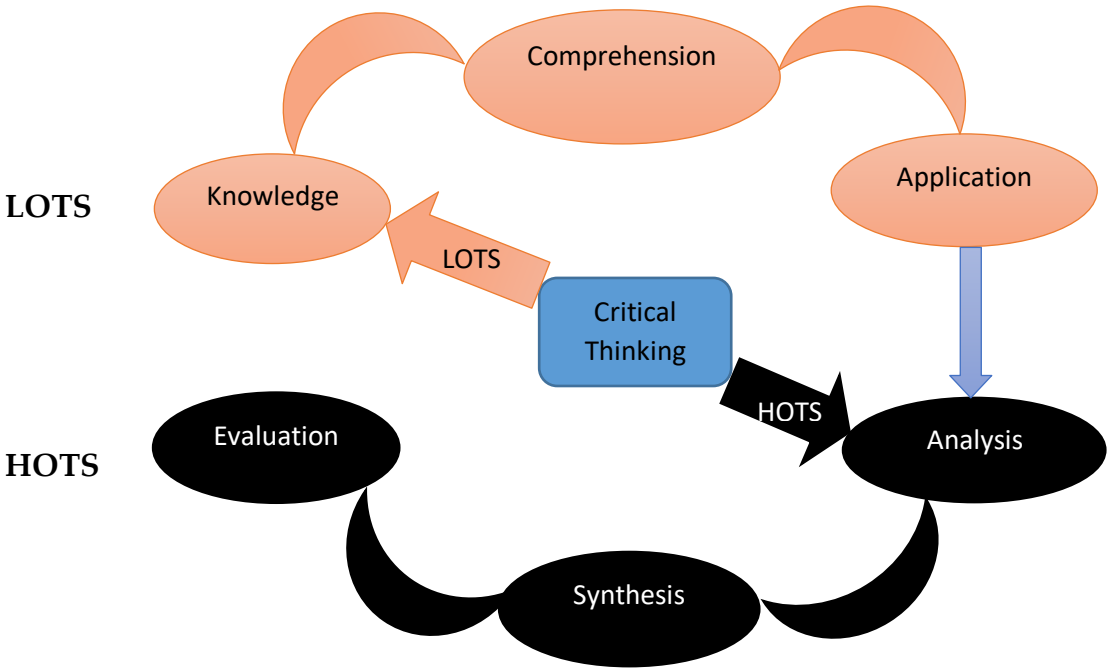
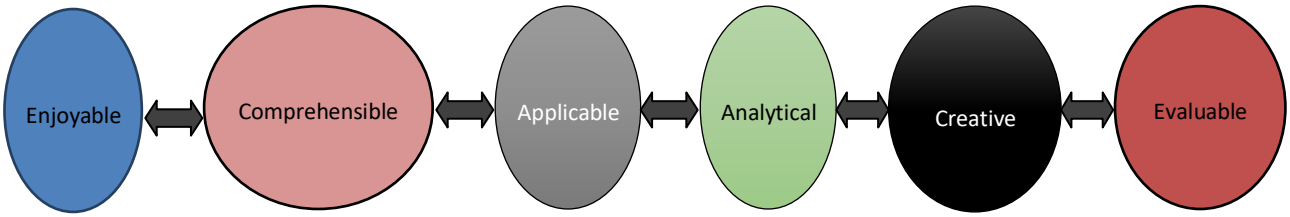


Figure 2: Critical Thinking Skills as the reflection of Classroom Language Teaching and Learning



Considering the investigation along with the above axes in Figure 1 and Figure 2 leads a Critical English Language Teacher to become involved in questions and issues about clusters of Critical Thinking, context, and its audience in categories. The formal features of critical thinking on the investigation to be carried out are based on the interactions between any of the two clusters: lower and higher order.

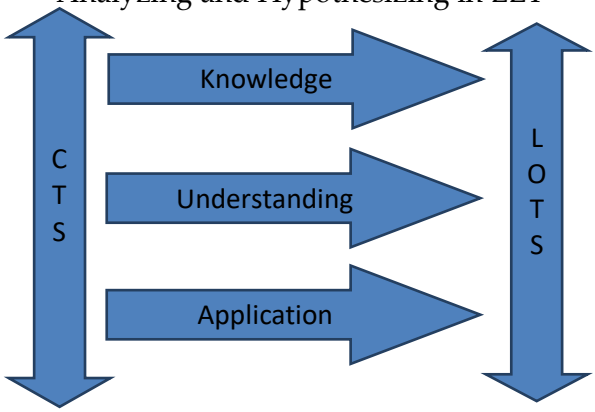
Bloom diagram illustrates different stages to teach a lesson. The above clusters in the field of language teaching and learning research require a paradigm shift to empirical investigation. This also implies the use of critical thinking as innovative

approach to language teaching in Congolese classroom. The Latter exhibits some specific features that distinguish them from other different approaches to language teaching such as Lecturing method, Learner Controlled teaching methods and other methods. Along with Figure 1 and 2 in the exploratory and analysis of different axes above, critical thinking taxonomy as the reflection of learning theory is defined by one's relationship between lower and higher order curriculum division in learning classification that educators have to use when creating curriculum as a way of dealing with the level of cognitive thinking skills.

Lower order includes knowledge, understanding and application, while Higher Order division implies: analysis, synthesis, and evaluation as observable phenomena leading to intellectual skills as a reflection of increasing level of learners' cognitive complexity. Butcher et al., p41 (2006) advocate that learning outcome should include verbs which communicate clearly to the lecturer and students what needs to be done by the students in order to demonstrate achievement or mastery of the outcome.

On question how critical thinking vectors of Lower and Higher order divisions connect with learning in Figure 1? Benjamin Bloom (1972) states that activities utilizing these kinds of thinking skills will show that the students can think, recite information, facts and organize the information to solve problems by applying basic concepts to reach solutions. Furthermore, Lower order skills in curriculum design is a type of skills which consist of generating basic information.

Figure 3: Critical Thinking Lower Order Research Questioning, Analyzing and Hypothesizing in ELT

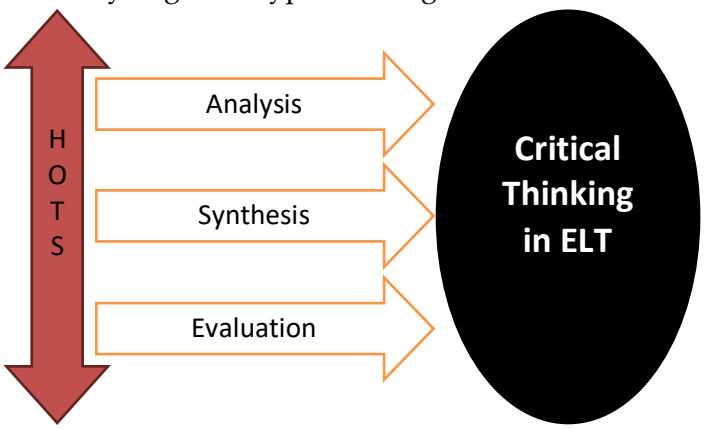


On questioning the axes above about LOTS in language classroom, Anderson and Krathwohl state that:

- **Knowledge** involves students recognizing and recalling what has been taught. This could be tested, for example, by having students match a list of words to their definitions. Alternately, in a reading lesson, remembering could be tested by having students answer who, what, and when questions, that is, questions that elicit a recall of key words and facts. For example: match the vocabulary word with the picture. It is when the student shows memory of previously learned materials by identifying facts, terms, basic concepts and answers etc.

- **Understanding** involves students constructing meaning by connecting new knowledge with existing knowledge. For example; filling in the gaps in pairs by completing the sentences with a word. It refers to a student who demonstrates understanding of facts and ideas by organizing, comparing, identifying ideas from the text, a story etc. In reading for comprehension for example it can be: summarizing and explaining the idea of the text.
- **Application** involves students testing out this newly gained knowledge, usually in a controlled way. For example, applying language in a personalized exercise such as Listening to a conversation, completing the messages and writing the information or engaging learners to translate short sentences in which the newly gained vocabulary, have been used. It is where the student can use new knowledge to solve problems etc. Bloom states that application is the use of concept in a new situation. For example, application of what was learnt in classroom into a novel situation; application of new vocabulary learnt to conversation in daily life or applying the newly gained knowledge to a daily situation of life.

Figure 4: Critical Thinking Higher Order Research Questioning, Analyzing and Hypothesizing in ELT



On questioning the axes above in Figure 4, HOTS in language classroom appear as the highest level in hierarchy of cognitive processes. Philips, 2004 advocates that HOTs happens when a student gets new information, keeps in memory and compiles, links to existing knowledge and generates this information to achieve a goal or solve a problem in a complicated situation. While Onosko, & Newmann, 1994 views HOTs as the potential use of the mind to deal with new challenges since they lead learners to interpret, analyze or manipulate information (Mohamed, 2006; Ea, Chang, &Tan, 2004). In explaining pedagogical practices of HOTs, Fangenheim (2006) asserts that Bloom taxonomy stresses the importance of teachers' application of creative and innovative strategies to engage their students to learning via thinking abilities through various activities. In doing so, the classroom environment is impacted with positive learning and high motivation in pursuing challenge tasks (Ams, 1992; Kaplan et al., 2009). The idea is to promote higher order thinking in education such as analyzing, synthesizing

and evaluating the learning and it should include cognitive, affective, and psychomotor skills. Shen and Yodkhumlue (2011)noted that the excessive use of lower –order levels does not facilitate students' critical thinking since they merely require students to recall the knowledge directly rather than processing or manipulating knowledge learnt in class. Thus, to generate HOTs, King (2008) stated that higher order thinking process, questions must elicit answers that have not been already presented. Planning the question in advance of actual learning time helps assure questions them to go beyond simple recall of information. The teacher has to deliver questions in sharp focus and thought–provoking to discover different alternatives from the students to meet the answer. E. C. Wragg and Brown (2001:19) claim that it is necessary to ask questions restricted to the use of words and phrases that are appropriate to the group.

Gall et al. (2014) also argued that if teacher's question in higher order thinking process is unclear, it is difficult for students to give appropriate responses. Stahl (1994) states that Hots should involve the learners in information processing with multiple cognitive tasks that take time. Students need more uninterrupted periods of time to process the information, reflecting on what has been questionable, observed or done. Shoomosi (2014) argues that the students are encouraged to participate more when teachers incorporate HOTs critical thinking skills, but teachers must first understand their students and know why those techniques are applicable for a successful ELT classroom interaction. While Malini and Sarjt (2014) implied that the gap between pedagogical content, knowledge and application of HOTs in language classroom is due to inability and reluctance of teachers to innovate their activities to integrate HOTs in their classroom and their lessons preparation and planning. Furthermore, Bloom taxonomy of HOTs cognitive domain as stated by Collins (2014) comprises:

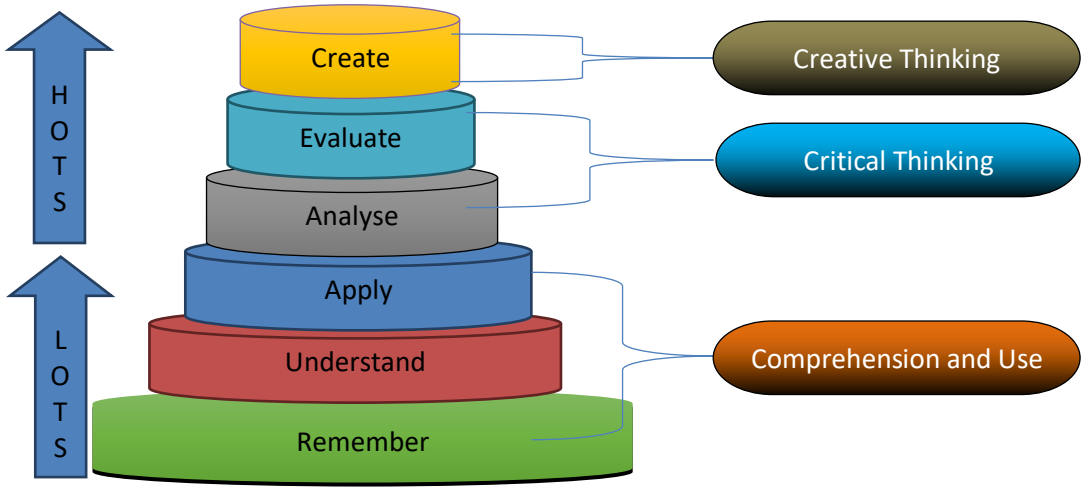
- **Analysis** which consists of separating materials or concepts into component parts so that its organizational structure may be understood. It is the ability to break down the material into its component parts. The thinking here is more reasoning and referring.
- **Synthesis** refers to the ability to put parts together to form a plan which is new to the learner; originating and creating are mostly used at this level.
- **Evaluation** refers to the ability to judge the value of material based on specific criteria, and thinking skills used at this level are judging and assessing.

Higher Order Thinking Skills is a crucial element allowing learners to produce and appreciate responses. It allows learners to think, organize and elaborate (Rone, 1986). Thus, the framework of using higher order in Congolese ELT Classroom will help teachers, novices and practitioners, applied linguistics scholars, and students to be aware of using HOTs to increase the interaction among students. While on the other hand students can benefit from it and be able to produce a personal communicative argument competence with higher cognition.

On question how critical thinking skills are justified as the reflection of Productive Language Teaching and Learning? (Astin, 1993, Pascarella, 2001) assert that student academic excellence is the main agenda for any educational institutions. Thus,

to ensure that the academic excellence can be achieved, it requires action and critical thinking skills cooperation from both teachers and students to meet the effective learning ultimate goals. While Zin (2004) and Aitkin and Zuzovsky (1994) argue that Critical thinking connect teaching and students' cognition styles, teaching and learning should be enjoyable, comprehensible, applicable, analytical, creative and evaluable.

Figure 5: Features of Critical Thinking Revised Taxonomy,
Their Application and Analysis Process in ELT



Considering the investigation along with features of critical thinking revised taxonomy and their application in English language teaching as described in Figure 5 clusters above, the six revised levels provide a systematic way of describing how a learner's performance grows in complexity when mustering academic tasks. Plutarch advocates that the mind of a student is not a vessel to be filled in, but a fire to be kindled.

Denise Tartinton, in guide productive pedagogy, asserts that a lesson based on SMART Bloom's revised planning matrix leads to a productive classroom reflexion. Students are engaged in lower order thinking for good share of lesson which leads the learner from comprehension to application. They receive, recite or participate in routine practice exercises. While Higher Order involves the transformation of the information and ideas that leads to critical thinking and creativity, transformation occurs when students combine facts and ideas, analyze, synthesize, generalize, explain, hypothesize or arrive at some conclusions or interpretations. Manipulating information and ideas through these processes allows students engage in the construction of knowledge. The element of uncertainty is introduced into instructional process and the outcomes are not always predicable.

In other words, the teacher is not certain about what the student will produce as they can produce original ideas or products from different perspectives. In helping, students become producers of knowledge; the teacher's main instructional task is to create activities or environments that can give them opportunities to engage in higher order thinking. Based on, (Pohl, 2001, Learning to think, Think to learn, p.8), the

subcategories of major categories as illustrated in Figure 5, Critical thinking revised taxonomy with six subcategories aims at replacing the paradigm shift of hierarchical levels into recognizing verbs to engage learners in productive learning. Pohl asserts that 3 categories have been renamed and reorganized:

- **Remembering** refers to knowledge which is a product of thinking.
- **Understanding refers to** Comprehension which is a lower order creative knowledge to better reflect the nature of thinking.
- **Creating refers to** synthesis **which** consists of generating new ideas, products or ways of viewing things from different perspectives etc.

On answering to the question how the six revised and reorganized subcategories in Figure 5 connect with productive learning and find a reliable application in ELT Classroom, Denis Tantinton argues that:

- **Creating** engages learners in generating new ideas, products or ways of viewing things, designing, constructing, planning, producing and inventing.
- **Evaluating** consists of justifying a decision or course of action checking, hypothesizing, critiquing, experimenting, judging.
- **Analyzing** engages the learner to break the information into parts to explore understanding and the relationships, comparing, organizing, deconstructing, interrogating, finding.
- **Applying** consists of using information in another familiar situation, interpreting, carrying out, using, executing.
- **Understanding engages** learners in explaining ideas or concepts, interpreting, summarizing, paraphrasing, classifying, and explaining.
- **Remembering:** Consists of recalling information, reorganizing, listing, describing, retrieving, naming, finding, matching a word to its definition.

Figure 6: Critical Thinking Skills and Research
on Linguistic Cognitive Paradigms and Categorizations

	Cognitive Objectives	Critical Thinking Skills and Learner's role in ELT & Learning	Teacher's Role	Critical Thinking Question Examples
1	**Remembering**	recalls, restates, remembers learned information, reorganizing, lists, describes, identifies, retrieves, names, locates, finds, shows, gives an example, repeats, chooses, groups, labels, recites, underlines, gives an example, reproduces, cites, recognizes a specific information, responds, rememorizes, recites a poem active and participative etc.	directs, tells, shows, examines, listens, questions, compares, contrasts, passive recipients	What is …? Who is …? Can you name..? Describe what happened after….?. Can you match a word in A with its definition in B, List from the diagram X verbs which are regular or irregular etc.
2	**Understanding**	restates, identifies, discusses, retells, translates, recognizes, reports, observes, interprets, estimates, paraphrases, gives an example,	engages learners, guides, verifies, appraises, probes, observes,	Can you explain why…? Can you write in your own words? What is the main idea of this

		associates, describes, reviews, outlines, understands the information, collects, explains, labels, cuts out , draws a picture, write in his /her own words, illustrates a picture or an event in the story, illustrates the main idea of the text, summarizes, outlines the main points, listens and answers to the questions, contrasts, explains, restates, examines, compares, describes, demonstrates, active & participative, retells in his/her own words, explain how the character solved the problem in his or hers own way, paraphrases the passage in the chapter.	evaluates, acts as a resource, questions, organises, dissects, etc.	text….X…? Who do you think is the main character of this story? Can you clarify….
3	**Applying**	interprets, calculates, illustrates, applies, manipulates, exhibits, practices, operates, changes, executes, interviews, makes use of the information in another context, solves, uses the information in another familiar situation, implements, carries out, demonstrates, performs, simulates, presents, uses strategies, concepts, principles, and theories in a new situation	engages learners, guides, shows, facilitates, observes, questions, verifies, etc.	Fill the gaps of the text with elements from the box X. Can you demonstrate how X character is similar or different from Y character? Illustrate how the belief systems and values of characters are presented in the story? Apply verbs from the box X into the missing gaps y , Can you interpret the graph X differently from Y etc.
4	**Analyzing**	analyses the result, uses Venn diagram to show how two topics are the same and different, designs a questionnaire to gather information, surveys classmates to find out what they think about a particular topic, makes a flowchart to show the critical stages, classifies the actions of the characters in the book, creates a social gram from the narrative ,constructs a graph to illustrate selected information, makes a family tree showing relationships, devises a role play about the study area, writes a biography of a person studied, prepares the report and the area of study, conducts the investigation to produce information to support a view, reviews a work of art in terms of form, colour, completes a decision	engages learners, probes, observes, guides, acts as a resource, questions, organizes, dissects, appraises, etc.	Which event could not have happened if…? If X happened, what might the ending have been? Can you distinguish X from Y in the text? How is… X similar to……Y? What is the problem with …? Why did X changes occur? etc

		making matrix to help you decide which items to purchase.		
5	**Evaluating**	make in depth reflection, prepares and conducts a debate, prepares a list of criteria to judge, makes criticism and assessment, checks, hypothesizes, critiquing, experimenting, judging the value of ideas, defends materials by developing and applying the standards and criteria products, debates, reports, disputes, compares, questions, argues, evaluates, investigates, tests, detects, monitors, justifies a decision, course of action, judges, relates, validates, predicts, assesses, scores, revises, infers, determines, prioritises, tells why, compares, evaluates, defends, selects, deduces, debates, justifies, recommends, discriminates, appraises, values, probes, argues, decides, criticizes, ranks, verdicts, concludes, persuades speech arguing for or against, active participant. etc.	clarifies, guides, assesses, appraises, evaluates, accepts or contrasts	Judge the value of …….x…., Can you defend the character's position about …..? What is your opinion about…….? What are the consequences of……? Why did the character choose ……? How can you determine the character's motivation when……..?etc
6	**Creating**	takes risk to create new thing, or ideas concentrates energy on what he/she can change, undertakes action, designs, constructs, plans, produces, devises, generates new ideas, information, invents a new product, composes, assembles, organizes, invests, compiles, forecasts, devises, proposes and constructs, develops, originates, imagines, generates, formulates, improves, acts, predicts, produces, blends, sets up, devises, concords, compiles, puts together ideas or elements to develop an original ideas, modifies, creates a new product such as a film, storytelling, new game, song, newspaper, project, advertisement, creates a proposal, designs a new monetary system, designs a robot to perform a task, etc.	engages learners to create a new product, or idea, guides, facilitates, reflects, engages the learners in creative thinking, analyses, reflects, evaluates, etc.	How to make a campaign strategy before the election comes? What can be a possible solution to x problem? What do you think would be the outcome of…..? What is your opinion about….? Imagine what could happen if ……? Write an abstract on the topic….x…., Write a CV for job application etc. Invent a short story for classroom presentation about the best holiday you have had ,Write your biography, Write an advertisement about a product on sale, what is your point of view on ……. etc

The investigation along with Figure 6 on critical thinking and linguistic cognitive features and categorization leads a critic researcher to question the connecting vector

existing between the teacher's role play and student's engagement towards ultimate academic goals achievement in Lower and Higher order critical thinking skills. Watson et al.(1998) assets, "*in a block schedule, the learning tasks can be designed to take short time questioning and answering in lower order thinking skills while learning involving higher cognitive levels would take more time, be of greater in depth, and require more inductive productive learning*." Cano and Newcomb (1990) advocate that teachers should purposefully create learning situations which assist in development of learners from lower to higher cognitive abilities (p.51). The tasks type in Figure 5 present students with opportunities to communicate about real issues that are important for them to generate opinions and different possibilities. This, in turn may be more enjoyable, engaging, and productive to meet ultimate academic goals of having a more active and productive or creative student thinkers in ELT or EAP.

3. Conclusion

The Present paper has dealt with the importance of Critical thinking skills as a strong requirement for DRC English language teaching and learning classroom Educational system reform whereby teachers, novice and practitioners quit teaching career since they find it mostly difficult. The teacher's role in ELT / EAP is more inactive, dominant, and authoritative based on students' fear and lacks creativity in innovating lessons. The present paper has raised the questions: How critical thinking vectors connect with ELT /EAP to improve learning? Why to include critical thinking skills in DRC Educational System English Language Teaching? To answer these questions, the work has applied qualitative method grounding classroom observation, interviewing, and learning theory criticism. As a result, success in such tasks for English Language Teaching or English for Academic purposes in Congolese Educational framework requires teacher's empowerment in Critical Thinking Skills towards involving students in the development of cognitive skills that go beyond traditional role in learning and encourages the application of Critical Thinking Cognitive skill levels which lead the learner from Lower to higher productive thinking levels with teaching practice which is more enjoyable, understandable, applicable, analytical, creative and evaluable .In doing so, teachers may design courses that will take students from one cognitive level step to the next and develop their critical thinking in which much emphasis is placed on learner-centered practices to show sensitivity to individual differences among students ,including both teacher's and student's role-play engagement in lesson comprehension and use towards problem-solving, in-depth analysis, creativity and decision-making. Thus, there is enough through investigation in classroom Critical Thinking Skills Teaching and Learning for academic excellence goals achievement either qualitatively or quantitatively as research paradigms in ELT and EAP.

Bibliography

Anderson and Krath Wohl (2001). A Taxonomy for Learning, Teaching and Assessing. New York. Longman Creative Education, Vol.5.

Andrew J. King (2008). Visual influences on auditory spacial learning. Royal Society Publishing.

Astin, A. (1993). What matters in college? Four critical years revisited. San Francisco CA: Jossey-Bass.

Benjamin Bloom (1972). Taxonomy of Educational Objectives: The Classification of Education Goals, Parts 1-2, D. McKay Company, Pennsylvania State University

Butcher et al. (2006). Learning from text with diagrams: Promoting mental model. Journal of Educational Psychology .Vol.98, N⁰.1, 182-197

Cano & Newcomb (1990). Cognitive Level of Instruction and Student Performance. Ohio State University.

Chang & Tan (2004). Thinking about Thinking: What educators need to know .Isbn:007-123507-8.

Collins, Anita (2014). Neuroscience, Music Education and the Pre-service Primary (Elementary) Generalist Teacher. International Journal of Education & the Arts. 15.

Denise Tertiton (2003). Presentation of Bloom Revised Taxonomy. https://jeffersonwsu.files.wordpress.com

E. C. Wragg and Brown (2001). Questioning in Secondary School. New York: Routledge Falmer.

Frangenheim's (2006). Thinking Skills Framework. Advances in Language and Literary Studies .ISSN: 2203-4714 Vol ESL.

Gall et al. (2014). Applying Educational Research: How to Read, Do, and Use Research to Solve Problems of Practice. Pearson Education.

Kaplan et al. (2009). Maternal Sensitivity and Learning promoting effects. Journal Infancy Vol. 14, Issue 2.

Onosko, J. J., & Newmann, F. M. (1994). Creating more thoughtful learning environment. Creative Education , Vol ,7.N⁰ 2

Parham Aarabi (2011). The Art of Lecturing, Cambridge University Press.

Philips (2004). Defending Equality of outcome. Journal of Political Philosophy.

Pluttarch (1928). The Mind is not a vessel to be filled, but a fire to be.

Pohl (2001). Learning to think, thinking to Learn: 2: Models and Strategies to develop a classroom culture of thinking. Hauker Brownlow Education Pty LtD, Cheltenham, Melbourne, Australia.

Rone (1986). Short term scheduling of vessels for shipping bulk or semi-bulk commodities originating in a single area. Operations Research 34,164-173.

Ruth Pickford (2004). The Art of Teaching: A model for The Lecture in 21st Century, Leeds Metropolitan University, UK.

Chen, C. (2011). Factors affecting high school teachers' knowledge-sharing behaviors. Social Behavior and Personality: An international journal, 39, 993-1008.

Shoomosi N. (2014). Effect of Teachers' Questioning Behavior on EFL Classroom Interaction: A Classroom Research Study. The Research Matrix Vol4, N2. 2004.

Stahl (1994). ''Think-time'' and ''Wait time'' Skillfully in Classroom. Eric Digest Team.

Stern, H. H. (1983). Fundamental Concepts of Language Teaching. Oxford, England. University Press.

Watson, D., Clark, L. A., & Tellegen A. (1988). Development and Validation of Brief Measures of Positive and Negative Affect The PANAS Scales. Journal of Personality and Social Psychology, 54, 1063-1070.