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Investigating Cognitive Levels Applied to English as a Foreign Language Acquisition/Learning among Secondary School Learners in Parakou, Benin

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Abstract: *Students' cognitive levels play important roles in EFL classes. They determine lessons mastery by learners and also the teaching learning process achievement. This research has aimed to assessing the EFL students' different cognitive levels in Parakou municipality. Teachers and learners have participated to the study. They were selected through random way. Questionnaires, interviews, classroom observation and Montreal Cognitive Assessment (MoCA) were used to collect data. The findings have demonstrated that 40% of the teachers met don't know anything about cognitive levels, 50% do not know which cognitive activities they should give to the students according to their levels. Only 30% are aware of that and are really boosting the students' cognition. Besides, 80% of the learners have a quick understanding and 20% have a low or medium understanding of the lessons taught. Cognitive levels in the teaching-learning process can help learners to better improve the four skills as well as their critical thinking.*

Keywords: Cognitive levels, EFL, Language Acquisition, Secondary School Learners

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Introduction

Education plays an important role in the young generation preparation for full participating to the community development. Experts and researchers consider education as a crucial or capital factor when it comes to preparing the future generation to face the ever-changing future. Idris et al. (2012) found that education is very important for an individual's success in life. It helps a person to discover himself and his potentials as full participant of the society. To that perspective, English appears to be the best medium in today's globalized world. Due to its importance in every domain, English is adopted as Second Language or Foreign Language in many non-speaking countries (Rohmah, 2005).

To make teaching-learning process successful at school, teachers should be aware of students' cognitive levels and adapt their teaching strategies accordingly. In fact, the main goal of education is to enable students to make critical thinking, to solve complex problem and succeed in today's demanding world. Measurement of such knowledge and skills is essential to tracking students' development and assessing the effectiveness of educational policies and practices (Finn et *al*. 2014).

Cognitive skills bring academic success to students and help them to efficiently think, read, prioritize, understand, plan, remember, and solve difficulties. Thus when cognitive skills are strong, students pick up things faster, more easily, and find it fun.

In EFL classes, most of the teachers do not know how cognitive skills that learners possess in EFL acquisition and learning can impact their language achievement. Furthermore, cognitive skills are determinant for teachers to assess learners 'language needs and know which activities should be put in their program. So, the teachers can apply differential teaching so as to meet students' individual needs and by so doing, get learners motivated and focused in classroom activities.

However, learners face more challenges while learning English language and some are not performing during exams. Thus, it has come more than important to raise teachers' awareness about the students' cognitive skills and their impact on teaching learning practice. With the purpose to resolve this problem, the present research work aims to investigate on the students' cognitive levels in EFL acquisition and learning among secondary schools learners in Benin.

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Literature Review

Cognitive levels are aspects of mental functioning, such as memorizing and remembering; inhibiting and focusing attention; speed of information processing; and spatial and causal reasoning (Robinson 2011).The individual cognitive abilities are measured by submitting people to formal test. The outcome of such test enables to pull out individual intellectual capacities in solving problems, thinking, keeping information, analyzing and reasoning in front of situations. Indeed, psychological science has used measures of several cognitive concepts to assess variation in domain-independent mental skills, including processing speed (how efficiently information can be processed (Kail & Salthouse, 1994)), working memory capacity (how much information can be simultaneously processed and maintained in mind (Cowan, 2005; Gathercole et al., 2004)), and fluid reasoning (how well novel problem can be solved; also termed fluid (Engle et al., 1999)).Even more, there is a significant co-relation among those three major aspects of mental skills. Studies from late childhood through young adulthood indicate that gains in processing speed support gains in working memory capacity that, in turn, support fluid reasoning (Coyle et al., 2011; Fry & Hale, 1996; Kail, 2007).

In school context, students' cognitive levels are very important to their success. They influence their ability to integrate knowledge, which is the goal of education. Cognitive skills and knowledge involve the ability to acquire factual information, often the kind of knowledge that can easily be tested.

According to Finn et al. (2014), cognitive skills predict academic performance, so schools that improve academic performance might also improve cognitive skills. As matter of fact, studies have shown that attending school has a positive impact on students' intellectual abilities (Williams, 1997). Students with more time spent in school show better IQ level. This cannot be possible without teachers' contribution through adopting good teaching method, quality activities implementation and differential teaching.

Developing students' cognitive level at school calls for new approach of learning called cognitive learning. This style of learning is a powerful alternative to traditional classroom learning. Instead of focusing on memorization, this approach builds on past knowledge. Students learn to make connections and reflect on the skills that help them become better learners, and by so doing get more creative. As major benefits, cognitive learning improves comprehension, develops problem-solving skills, promotes long-term learning, improves confidence, and installs a love of learning (Jaeggi et al. 2011).

Nevertheless, cognitive learning is influenced by three factors such as comprehension, memory and application (figure 1).

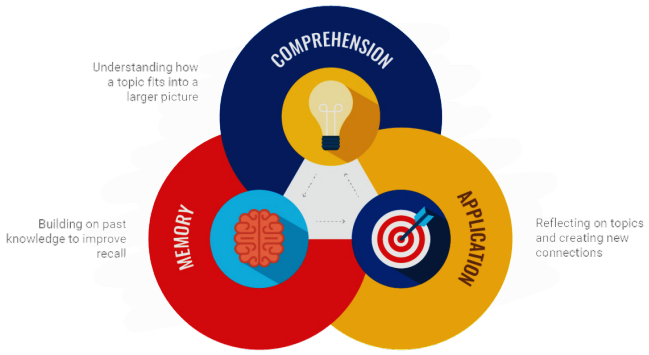

Figure 1: Factors influencing cognitive learning (source: gradepowerlearning.com)

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Problem Statement

Students' cognitive skills are fundamental to EFL teaching learning. As a new language, students need to make use of their inner capacities to acquire and install it. Some students have the capacity to quickly memorize or to analyze information. Other groups are creative an imaginative. All these skills contribute to help students to solve problems and to have good performance. Such can be possible only if the teachers are proficient and can differentiate learners' cognitive levels and make class activities and teaching materials and techniques fit with students' abilities and needs as well. For instance, students who learn by seeing or applying learn better when their teachers involve them in practices or when they watch videos.

However, EFL teachers are not always aware of students' cognitive skills. They do not design class activities that boost students' intellectual abilities. While research showed that cognitive ability is highly correlated with schooling success, it significantly contributes to future earnings (Cawley, Heckman, &Vytlacil, 2001; Green & Riddell 2003). Moreover, students do not perform well at school and thereby are missing their language needs essential for their future life.

2.1. Objective of the study

The general objective of this study is to evaluate the students' cognitive levels in EFL classes. It fundamentally aims to:

- Identify the different types of intelligences that learners possess that affect their language learning achievement;
- Explore EFL teachers' perceptions about the learners' different intellects;
- Suggest techniques and strategies to reinforce students' levels in classroom.

2.1.1. Research Questions

To achieve the above set objectives, some research questions have been designed as follows:

- ***Question 1:*** What are the different cognitive levels/intelligences that learners possess?
- ***Question 2:*** What are teachers' perceptions about students' achievements via different cognitive levels?
- ***Question 3:*** Are the EFL teachers' activities developed in the lessons in accordance with the cognitive levels' students possess?

2.1.2. Research Hypotheses

By answering to the research questions, some research hypotheses have been formulated so as to meet the objectives of the study.

- ***Hypothesis 1:*** Learners' different cognitive levels are remembering, understanding, applying, analyzing, and creativities.
- ***Hypothesis 2:*** EFL teachers are aware of students' cognitive levels and adapt their teaching strategies/approaches/methods/techniques accordingly
- ***Hypothesis 3:*** EFL teachers use materials and activities that help learners to boost their intelligences in classes.

3. Methodology

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In the course of this research program, an appropriate research methodology is adopted accordingly to the substantial factors influencing the community.

3.1. Target Population and Sample

The participants to the present study are composed of both EFL teachers and learners of Lycee Mathieu Bouke (LBM)secondary school of the municipality of Parakou in Northern Benin. Learners are involved in the survey since they are the major actors and the beneficiaries of the educational system. As for teachers, they are in charge of delivering knowledge and the guidance of learning in their knowledge building. The sample is composed of ten (10) teachers and fifty (50) students, selected randomly. The students belong to third and fourth forms.

3.2. Data Collection

The data collected have effective based on the objectives of the research work. Some suitable techniques were used.

3.2.1. Techniques

Four major techniques were deployed such as classroom observation, peer teaching, interviews and Montreal Cognitive Assessment (MoCA).

- **Interviews:** As a qualitative research method, individual interviews were conducted with teachers and learners on the basis of questionnaire. This technique aims at collecting detailed information about participants' experiences, opinions, and attitudes in their own words. Interviews have been administered for better understanding of the research topic.
- **Peer Teaching:** Peer teaching is a suite of practices in which peers instruct each other in a purpose-driven, meaningful interaction. Many programs feature older, more experienced peers, or those with greater mastery in a subject area teaching younger, less experienced peers or those who are yet to master the skills and content of the subject area (Bradford-Watts, 2011). This technique was used to determine the students' cognitive levels such as their concentration, their creativity, etc.
- **Montreal Cognitive Assessment:** The Montreal Cognitive Assessment (MoCA) was used to know the students' cognitive levels. Indeed, MoCA test is designed as a rapid screening instrument for mild cognitive dysfunction (Koski, 2013). It evaluates different cognitive domains such as attention and concentration, executive functions, memory, language, visual constructional skills, conceptual thinking, calculations, and orientation. The test lasted approximately 10 minutes. It's concerned 24 students (12 in third class and 12 in fourth class)and has been done just after peer teaching.
- **Classroom Observation:** According to Koshy (2005), as cited in Elen N.A. (2020) Classroom observation plays an important role in any kind of data-gathering and most active research projects use this as an instrument. Observation is a natural process that one uses to observe things or people and make judgment based on what has been observed. As technique it helps to collect behavioral and non-verbal responses from the participant. During class observation everything happening in the class is written. Then some remarks and suggestions have been suggested with the purpose to improve teaching and learning process. In so doing, the purpose is to gain a closer insight into the cultural practices, motivations and emotions of students about the cognitive levels and other different affective factors. Two class observations have been conducted, one in 6ème class and the other in upper sixth grade class ended.

3.2.2. Tools

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Questionnaires have been used as instruments for data collection. Teachers' questionnaire and the learners' one as well are in closed-ended format. It means that their answers are limited to a fixed set of responses among which they choose.

Both questionnaires are ranged from the general to the specific. It means that the questionnaires start from daily life experience to a specific point related to the topic under study.

The teachers have returned their questionnaire sheets one week later. As far as learners are concerned, one has distributed the questionnaire sheets to them and collected their answers on the spot.

4. Findings Presentation

The findings of this survey are identified through the results analysis of the different stakeholders' data.

4.1. Data from Teachers

The findings reveal that five (5) out of ten (10), that is 50% of teachers said that their learners participate actively during classroom lessons and others said the opposite. Also eight out of ten, it is 80% of teachers follow authoritarian styles while two of ten (20%) follow « laissez-faire style » during lessons. It means that teachers do not allow their learners to interrupt in the class.

Moreover, the study showed that, four (4) out of ten (10), that is 40% of the teachers investigated do not know what is cognition. Consequently they do not design activity that can really help students to develop their cognitive differences. In fact, half of them, this is 50% of the teachers don't really know which cognitive activities they should give to the students according to their levels. Only 30% are aware and said to have been really improving the cognitive levels of the students.

4.2. Data from Learners

The analysis of the data reveals that of fifty (50) students, forty (40), this is 80%, declared that their teachers allow them to talk during classes while ten (10) out of fifty, that is 20% said that they do not allow them to participate actively to lessons and thereby they do not feel engaged during exams.

The majority of EFL learners (90%) attested that they like speaking lessons and 10 % find it difficult. All of them confirmed that their college has a library but all of them do not visit that library with the purpose of reading. The results prove that learners only have the opportunity to speak English at school with their classmates and teachers. Also 100% of them declared that their parents do not engage in their learning context. In addition, more than half of the learners are willing to participate actively in what goes on in the classroom.

The English class observation and peer teaching reveal that 80% of the learners have a quick understanding and 20% have a low or a medium understanding of the lessons.

Data from MoCA assessment shows that of twelve (12) learners involved in the test in 4ème class, four learners representing 33.33% presented their work acceptably. Eight students representing 66.66 % have a grade under the average. Only four learners that is33.33% have a grade beyond average. In fourth class, of twelve (12) students evaluated, four (4) learners representing 33.33% have presented their work acceptably. Eight (8) students, representing 66.66 % have a grade under the average.

5. Discussion

The analysis reveals that 50% of the investigated teachers make learners participate actively to class activities while the other half does not do. The majority of them use authoritarian style to teach students. This has shown that the teachers do not use appropriate strategy and teaching style that can really make learners feel involved and by the way take part fully to the school activities. These observations have raised the problem of lack of professional training as notified by Arslam, Mirici and Öz (2019). The

authors in their research point out that it is crucial to train teachers on vocabulary instruction, teaching pronunciation, material development, use of instructional technology in ELT, teaching mixed-ability classes, and classroom management. Lemperou Chostelidou and Griva (2011) made similar conclusion when they said that teachers should be taught on the inclusive way of teaching.

The study showed that 40% of the teachers do not know what cognitive level is. Half of teachers do not know which cognitive activities they should give to the students according to their levels. Only 30% are aware of them and said to have been really improving the cognitive levels of the students. These results demonstrate the teachers' incapacity in assessing learners' cognitive skills and helping them to develop those skills. Evendi et al. (2022) have confirmed in their study that assessing students' critical thinking skills viewed from cognitive style is very crucial to successful classroom. This is the reason why Erikson & Erikson, (2019) said that equipping students with critical thinking skills is a fundamental task of a university in the contemporary higher education system in the current century.

Bezanilla et al., (2019) stressed that the intervention of critical thinking teaching programs in classrooms must be optimized so that it becomes a way for the university to develop students' critical thinking.

Learners' data show that the big majority are participating actively to classroom activities against 20% who feel not to be engaged in the lessons. Almost all of them are motivated in speaking English, most importantly with their mates and with their teachers at school. They expressed the need to be the main actors of their knowledge building. This is a good result since the students' motivation is tremendous for successful teaching learning. Al-Munawwarah (2018) made similar conclusion when she discovered that both instrumental and integrative motivation play a crucial role in the students' EFL learning process. In addition to this, 80% of the learners have a quick understanding and 20% have a low or a medium understanding of the lessons.

This is normal because in the field of acquiring or learning a language, learners' success may vary since they have different characteristics (Al-Munawwarah, 2018). Moreover, MoCA assessment completed in both third and fourth classes revealed students possess different cognitive levels that are remembering, understanding, applying, analyzing, evaluating and creating. All these skills are affected by the motivation that determines the differences in acquiring a language (Crisfield & White, 2012).

6. Conclusion

The present study has investigated the cognitive levels in EFL Acquisition/ learning among Secondary Schools Learners in Benin. The findings have revealed that the learners are strongly motivated in learning English language and participate actively to classroom activities. However the teachers don't know much about students' cognitive levels and are not helping them to develop those levels through adequate teaching strategy and appropriate lessons. In addition, the majority of the learners have quick ability to understand lessons. Six major cognitive levels are pulled out such as remembering, understanding, applying, analyzing, evaluating and creating. Further studies should focus on those individual skills to better enlighten teachers awareness in developing them in EFL classes.

References

Al-Munawwarah, F. S. (2018). Students' Motivation In EFL Learning. *TELL-US Journal*, 4(2), September 2018, 107-119. : https://doi.org/10.22202/tus.2018.v4i2.2779

Cawley, J. Heckman J., &Vytlacil, E. (2001). Three observations on wages and measured cognitive ability. Labour Economics, 8(4), 419-442.

Crisfield, E., White, J., &Pawlak, M. (Ed).(2012). New perspectives on individual differences in language learning and teaching. London: Springer Heidelberg.

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Engle, R. W., Tuholski, S. W., Laughlin, J. E., & Conway, A. R. A. (1999). Working memory, short-term memory, and general fluid intelligence: A latent-variable approach. *Journal of Experimental Psychology: General*, 128(3), 309-331.

Erikson, M. G., & Erikson, M. (2019). Learning outcomes and critical thinking - good intentions in conflict. *Studies in Higher Education*, 44(12), 2293-2303. https://doi.org/10.1080/03075079.2018.1486813

Evendi, E., Al Kusaeri, A.K., Pardi, M.H.H., Sucipto, L.,Bayani, F.,&Prayogi S. (2022). Assessing students' critical thinking skills viewed from cognitive style: Study on implementation of problem-based e-learning model in mathematics courses. *EURASIA Journal of Mathematics, Science and Technology Education*, 2022, 18(7), 1-15. https://doi.org/10.29333/ejmste/12161

Evendi, E., &Verawati, N. N. S. P. (2021). Evaluation of student learning outcomes in problem-based learning: Study of its implementation and reflection of successful factors. *JurnalPenelitianPendidikan IPA*, 7(Special Issue), 69-76.

Finn, A.S., Kraft M.A. West M.R., Leonard, J.A. Bisch, C.E. Martin, R.E. Sheridan, M.A.,Gabrieli, C.F. &Gabrieli, J.D. (2014). Cognitive skills, student achievement tests and schools. *Psychological Science*, 25(3), 736-744.

Green, D. A., & Riddell, W. C. (2003). Literacy and earnings: an investigation of the interaction of cognitive and unobserved skills in earnings generation. *Labour Economics*, 10(2), 165-184.

Idrisa, F. Hassana, Z.,Ya'acoba, A.,Gillb, K.S. &MohdAwalc, N. A. (2012). The role of education in shaping youth's national identity. *Social and Behavioral Sciences* 59 (2012) 443 – 450.

Jaeggi, S. M., Buschkuehl, M.,Jonides, J. & Shah, P. (2011). Short- and long-term benefits of cognitive training. *Psychological And Cognitive Sciences*, 108(25) 10081–10086.