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Meta-Cognitive Knowledge and Autonomy in Learning: The Case of Learners in the Second Cycle of Government Bilingual High School (GBHS) of Ouro Tchede, Cameroon

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ABSTRACT

Traditionally school is the place of acquisition of knowledge, know-how to do and know how to be, in order to render pupils blooming, autonomous and performance. But this idea seems inaccessible, for in our school environment numerous pupils who find difficulties in learning, be it on the employment of metacognitive knowledge as well as in their autonomy. It is this reality that inspires us to ask the main question in these terms: does metacognitive knowledge influence autonomy in the learnings of students? The answer to this question has helped to have the general hypothesis that follows: metacognitive knowledge influences autonomy in learnings of second cycle students of Ouro Tchede high school. As such, to support our hypotheses, we have convoke four theories: the theory of mental activity management, the theory of gaining of consciousness, the theory of identity building and the theory of auto determination. The method used is quali-quantitative. The questionnaire and interview guide had been used to respectively collect data from 195 selected students from the stratified sample technics and 07 teachers. Data collected had been treated with the help of SPSS software in its 20.0 version while their analyses is been done thanks to content analysis and simple linear regression test. At the end of the said analysis, metacognitive knowledge significantly influences autonomy in learnings of Ouro Tchede high school students.

KEYWORDS: *Metacognitive knowledge, mental activity management, autonomy, learning, self-confidence, self-knowledge, Ouro Tchede*

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INTRODUCTION

For a long time, school learning was seen as a simple acquisition of new know-how by an individual and the process by which this new knowledge can be acquired. A few years later, a different acceptance appeared in psychological language, defining learning as: the appropriation by the student of the knowledge which one wants to make him acquire through "mental work". It emerges that if the child does "mental work" on the knowledge received, it brings into play factors such as social, emotional and several mental processes of processing, analysis, synthesis and digitization. Cognitivists add to this thought by making a connection between the functioning of a computer and that of the brain. They thus highlight the complexity of the latter's information processing system which, thanks to storage structures, memory and analytical operations transforms the student into a "cognitive agent». This amounts to saying that the subject independently processes information while carrying out his tasks and to move forward on this path, the student must be able to reflect on his knowledge and metacognitive strategies.

While it is true that metacognitive knowledge makes it easier to use and acquire information, many students do not use some of it. Metacognitive knowledge is in most cases unrecognized or misused. The active approaches such as: NAP, APC today used have changed the place of the child who has gone from the pupil (the one who followed and copied the master who holds the knowledge to the letter) to the learner, who has become an actor in his own learning and at the centre of the processteaching-learning.it has become evident that the use of learning strategies is important in the construction of knowledge. While

these new approaches have revolutionized the educational environment, over time they have highlighted a major problem, namely the use by learners of metacognitive knowledge allowing them to be autonomous in their learning. Many learners find it difficult to plan, to do a critical analysis. Metacognition is today studied through the concept of regulation of learning or self-regulation, of which it is a central part in education; it is often a question of developing metacognition in primary school but less in secondary education, as if students from high schools and colleges did not need it's it will basically be a question of seeing to what extent metacognitive knowledge can be an aid for the autonomy in the learning of the students of the high school of Ouro Tchede.

In this article, we will begin our work with the context and justification of the study, the definition of the problem, the finding, the research questions and the research objectives, then the methodological framework and finally the presentation will follow. Results and their discussion.

1. PROBLEMATIQUE

In this point, it will be a question of analyzing the different contours of the problematic of the study. This necessarily involves the presentation of the study context, the position of the problem, the formulation of research questions and research objectives and the formulation of research hypotheses.

1.1. Context of the study

Nowadays, in the field of education, the acquisition of knowledge no longer takes place in a traditional way where the teacher alone had the monopoly of the knowledge that he transmitted to the learners through the courses previously prepared. In secondary education, in addition to participating in teaching / learning activities, students must invest themselves independently in a series of tasks, including training in problem solving, designing teaching tools. Studies like blueprints and well .others in order to acquire knowledge, develop skills and be able, during assessments, to meet the demands of teachers, the autonomy of the learner being crucial in the management of their learning. According to the model of Viau (2009), a strong motivation to carry out a task, resulting from a pupil's perception of the value of the task, his competence to carry it out and the degree of control he a on the progress of its execution, implies the engagement of this one on the cognitive plan and .his perseverance. Since the 1990s, the metacognitive ability has appeared of great interest in the effectiveness of learning. However, we find distant premises in all forms of pedagogy attached to autonomy and the watchword "learn to learn". Much work concerns this capacity, as well as the means of strengthening it. However, evaluations have shown that it is often impossible to achieve a high level of training without a great deal of metacognition being developed. Depending on their natural predisposition and character, the learner is more or less attentive to their way of learning, of understanding and of solving problems. In the same vein, many psychological and sociological authors such as Bouffurd-Bouchard (1991), Doly (1996) have observed that students who fail are not metacognitive due to the non-use of control strategies, manage randomly without awareness, lean on surface indices and incorrectly encode the task, the data; so they don't really understand what they're doing. They give up when they fail and are dependent on outside help, so they don't memorize for understanding when they succeed. Conversely, successful students are metacognitive and self-regulating due to their knowledge of themselves and the choice of good learning strategies to improve their performance.

In Cameroon, where the field of education faces many challenges such as drug use, violence, delinquency in educational settings, learning has become, so to speak, a real challenge for learners and teachers alike. In the Far North region, we were able to observe, at the end of a pre-survey carried out among 30 learners and 10 teachers from the high school of Ouro-Tchédé, a low rate (35%) of learners getting involved autonomously in their learning activities. «These students in classrooms may give the right answers at one point, but then later they are unable to give their own strategy that they used to find the solution "this is reported by 8 of their teachers; succeeding in a task does not only mean giving the right answer, it is above all adopting the right process because the student is called upon to do alone what he was doing previously with the help of the teacher. These students find it difficult to understand that more often than not, the sequence of questions has a logical sequence, for example, to succeed in the second one must absolutely use the first. At this level, we see that they mismanage their mental activity in solving problems. Faced with a failure, these students are not aware of what they know or what they do not know, they do not control their learning and throw themselves into the task in a hazardous manner without realizing it or even giving up quickly without effort. They lose sight of the purpose of the tasks requested because they do not understand it correctly and finally they have difficulty memorizing the knowledge and transferring it to other times in their learning. Ssuddenly, we see that they did not develop the metacognitive knowledge that could help them become independent. The work carried out by Barbot

and Camatarri (1999) shows that the learning experience actually consists of a continuous osmosis between what is outside and what is inside the learning subject, but taking into account this that the inner dimension is the one that decides success of the learning process, since it is the interior of subjectivity that decides, autonomously what meanings to attribute to external requests, but the majority of students do not know or do not master this notion. The authors further point out that the most successful students who persevere in their studies are those who know how to take advantage of the help available to them and those who know how to use metacognition. Also, the lack of self-confidence generates in the student a feeling of fear to do even if he defends himself and takes an attitude of impact that mobilizes his mental resources; then he does not have enough resources to use the memories he has previously built, whether it is .proper academic knowledge or know-how such as knowing how to reason. The situation then constitutes a vicious circle: he does not have self-confidence, he cannot mobilize his cognitive as well as metacognitive knowledge; but since he cannot use prior knowledge, he can only readjust the metacognitive skills necessary to understand and .so learn. This is the story of a student with learning difficulties. Law n ° 98/004 of April 14, 1998 on the orientation of national education in Cameroon recognizes education as a national priority, these missions are summed up through the development of creativity, a sense of initiative and openness to the world. Eeducation in Cameroon is trying to move gradually towards a better operationalization of teaching-learning, in particular through a paradigm shift from traditional pedagogy to forms of pedagogy more centred on learners towards an approach by skills more suited to our times and to scientific advances in education which, in general, are not being implemented properly in institutions. Ffollowing the same logic, Assoah Etoga (2018: 3) asserts that "no regulatory device in this process is neither formally put in place, nor practiced, nor mastered by teachers in their teaching practices from a metacognitive perspective for bring students to their .autonomy in learning ".

In the Far North in particular and more precisely in Maroua which is a priority education zone, the situation of autonomy in learning is very worrying if we refer to the work recently carried out within the framework of the Teaching-Learning Process at Cameroon (PEA). We note that, whatever the obstacles which exist vis-à-vis the pedagogical, didactic and metacognitive relations in connection with the heterogeneity of the class and the target people of learning, nothing is done in our schools to gain real autonomy in student learning. So we can say that what is done should not be done and what needs to be done is not done. This assertion is justified by the means of the indirect observations and by the interviews which one made with the pupils of the Seconde, the Première and Terminale of the high school of Ouro Tchede in November 2020. 80% of them prefer the subjects where only a simple one is required of them restitution of the concepts taught; the reason they give this preference is that it is just a matter of memorizing the concepts learned in order to be able to answer the questions. Therefore, they have certain difficulties in reinvesting what they are supposed to have acquired. in fact, as the educational approach in the classroom becomes more trans missive for others, the students copy the teaching content, do exercises given as homework only to avoid sanctions; for them it is enough to solve the problem regardless of whether they understand or not, provided that they just avoid the penalty. They find themselves revising their lessons the day before an assessment or even the same day, thus doing a mechanical memorization that does not take into account an acceptable level of comprehension.

The data collected in the statistical report of the results of the end of the first quarter of 2020-2021 of the high school of Ouro Tchede during one of our visits for our pre-survey on January 14, 2021 at 10 a.m., highlight these difficulties in terms of performance made by these students. For the students of the Scientific Terminale (C and D) in subjects which require much more analysis, methodical understandings such as: French, mathematics, literature, philosophy; the success rate vary between 39.25 and 40%; the general averages are between 8 and 9. Those of the Literary Terminale (A) in their basic subjects, that is to say who have the greatest coefficient where they are supposed to have high marks, end up with mediocre marks (in French, the general average being 8.81 / 20 and in philosophy, 9.88 / 20). For those in Première and Seconde in subjects such as French, literature and philosophy or mathematics, their success rate varies between 43.22% and 44.5%. The conclusion is therefore obvious: most students, I e 80%, find it difficult to get involved effectively and above all independently in their learning subjects which require a spirit of synthesis or establishment of links between previously acquired notions seem inaccessible to them for lack of concrete learning strategies. When faced with failure, most of these students think only of turning to teachers or classmates for better explanations; in other words, they use little or no metacognitive resources, so we see that these students are not autonomous in their learning even less apt to

use or not their cognitions to solve a concrete problem.

1.2. Theoretical Orientations

From the perspective of cognitive psychology, the term metacognition refers to the ability to reflect on our own thinking and control over our cognitive strategies. .Designed from this angle, it is desirable to distinguish two important aspects of metacognition: knowledge and control. .if we refer to the knowledge aspect, it emerges that the learner is in the presence of a learning activity, and must "be aware of the demands of the task, of the strategies with the help of which he can achieve it adequately"(Tardif 1992: 59, cited by Cyr 1998: 113). As to control; it refers to the active and conscientious planning, regulation and evaluation of the learner of his activities throughout the learning process.

- Antoine de La Garanderie's theory of management of mental activity (2010)

In this theory, he reflects on the reasons for student success and failure, highlighting the different mental gestures involved in thinking and learning. He seeks to understand how each one operates to memorize, reflect, imagine and pay attention. To do this, he analyzed the mental learning strategies implemented by successful students. Antoine de la Garanderie affirmed that the success of a task depended, among other things, on the mental gestures that the pupils and students displayed. The data he has collected over many years has enabled him to identify different learning profiles. These profiles are organized around mental habits that involve real mental gestures that can be described, compared and, above all, taught. To achieve this, three major axes must be developed.

- Lead to self-knowledge: students must become aware of the mental habits they implement during various activities. He must be able to differentiate between evocations and perception, this distinction is essential for him to be able to highlight the project structuring any evocation.
- Broadening skills: this axis allows an awareness of cognitive processes as well as an understanding of them, in order to develop them adequately. The practitioners want to help everyone to develop the essential and to appropriate it. Once the student is aware of their evocative habits. The teacher is then able to suggest other mental strategies for him to have a greater variety of mental habits. This diversity gives students choices to improve their performance.
- Lead to autonomy: the pupil is then placed alone in the face of choices and must determine which means are most suitable for him and which, on the contrary, are less effective. This leads him towards an autonomy where he is the "promoter, even creator, of his means of success".

lt is said in this theory that, in order to be able to control these mental processes, one must first know them and then become aware of them. The student must distinguish when to use them and why; the more they are aware, the more we can act on it and with it. The more they are explained, the more we can appropriate them. What is decisive in pupils with difficulties is the management of thought. They usually have problems with planning, controlling, regulating, and where they lack the knowledge to manage their thinking. It is therefore understood, according to this theory, that depending on the degree of management of mental activity, the individual is involved in demonstrating his performance or his personal ability to perform a task. In fact, the theory analyzes what is going on in the mind of the learner. It therefore sheds light on our study insofar as it emphasizes the cognitive functioning of the learner with a view to giving him support to develop mental gestures which are not used independently and which could fault during learning.

Goudeseune (2021) does not totally agree with the theory of mental management, because for the latter, the differences in school are due to the sensory nature of our memories, visual or auditory. A visual pupil will not optimally assimilate a lesson to oral while an auditory pupil learns badly from books, written materials, he needs to listen. Depending on the management of mental activity, academic failure occurs when teaching is mainly visual for an auditory student or vice versa. For her, sensory memories do exist, but are of short duration while visual or auditory information is developed in more abstract memories, the main ones for education and learning autonomy are: lexical memory (morphology. words, graphics), semantic memory (meaning), memory of images (virtual images, memory of things, animals, etc.) and also note that the learner's difficulties stem more from ignorance of the means he uses. Use when it succeeds, hence the theory of taking conscience of Piaget (1974).

- Jean Piaget's Theory of Awareness (1974b)

The author also assumes that the acquisition of thought from experiences can only occur through awareness and therefore reflection on one's own cognitive development. ln his theory, Piaget (1974b) commented by Quiles (2014) is interested in the notion of awareness of one's own cognitive processes through the development of the child.

He distinguishes between "succeed" and "understand"; to succeed is to understand in action, a

given situation to a sufficient degree to achieve the proposed goals, and to "understand" is to succeed in dominating in thought the same situations until being able to solve the problems which they pose as for why and how of the connections observed and otherwise used in action. Success is therefore the materialization of understanding, visible thanks to the results obtained by the learner.

Thus, awareness consists of a conceptualization of material actions, that is, a transformation of action patterns into notions and operations. Piaget distinguishes three stages in this conceptualization, which thus follow one another during the development of the child: the preoperative stage, the stage of concrete operations and the stage of formal operations.

The first step is "material without conceptualization" action there is at this stage no conscious knowledge. The child succeeds in material tasks, but is not able to give reasons for his actions. The second step is conceptualization from awareness. The child is then able to represent and describe the event, and also to explain the why and how. In the third stage, "awareness" develops into a reflection of thought on itself, or reflective abstraction. This allows the child to compare different steps, including those he has not actually taken, and to consider different causal hypotheses. It is no longer the action which is at the origin of the understanding of a situation, but the understanding which directs the action.

Awareness, necessary for learning can modify learning to make it more autonomous, in the sense that it will allow the pupil to know the functions which he fulfills when he learns, to evaluate, to criticize his approaches, to discover a relevant choice of strategies and so to decide whether or not to regulate his way of learning. This theory sheds more light on our study insofar as it can help the pupil to structure his knowledge in a personal and explicit way, to be aware of what he is doing, to give meaning to his action and to follow his own path of evolution.

On the other hand, this awareness alone would not suffice to speak of metacognitive knowledge; you have to have self-confidence because you can know something but later doubt it, if you don't have good self-esteem. Also, if Piaget clarifies for us what awareness is, it leaves a certain vagueness as to which states of consciousness we access. We know how to access them, but we do not always know how to name them without confusing the name of the level with that of the process that leads to it. .because when we say that the awareness of one's way of learning influences the autonomy in the student's learning, what state of consciousness is it?

André's identity construction theory (2005)

Self-esteem is described as a fundamental factor of the personality (André, 2005), building the very essence of the individual. lt represents the attitudes and feelings, positive or negative, that the individual has about himself, both in terms of his abilities and characteristics as well as in his actions and performances. According to André (2005), good self-esteem facilitates engagement in action, is associated with more reliable and accurate self-evaluation, and allows greater emotional stability. A student with low self-esteem is at risk of not finding the energy to engage in school learning. Hence, this theory comes to clarify the choice of the variable "self-confidence" in our research, insofar as a bad self-esteem could have an impact on the learning of the students of the high school of Ouro Tchede because for the present theory, it is not so much the capacities real things that matter to him or her to learn, but those that he thinks he has. Here, it is about getting students to focus on the progress made and on the means they can acquire in order to better master the tasks to be performed.

- The theory of self-determination of Deci & Ryan (2002)

The theory of self-determination holds that the human being engages in actions at various levels of engagement. Basically, human beings have innate needs for self-determination and competence, in particular the need for autonomy, the need for competence and the need for relationships with others. Here, the student must clearly understand that his responsibility is engaged and that it is his involvement that will be decisive in his success. According to this theory, in order to promote the motivation and commitment of the student and to encourage him to persevere, it is therefore necessary to create and implement work situations that promote autonomy and support feelings of competence and social belonging to arouse a spontaneous motivation and by choice. These authors distinguish three main forms of motivation that they differentiate by their degree of self-determination, that is to say the degree with which an activity is carried out having freely consented to it and with a feeling of internal coherence, of agreement with oneself. Self-determined motivation has several consequences:

It brings a positive emotion,

it strengthens interest through activity,

- it decreases anxiety and stress,
- it activates concentration,
- it increases the time spent practicing,
- it promotes better learning and results.

The theory of self-determination sheds light on the notion of self-knowledge which is one of our variables, by showing the close link it shares with the involvement of learners. Indeed, a learner who ignores that there is a relationship between his results and his performance cannot logically improve also the satisfaction of these needs is fundamental and beneficial for the learner since it causes in them the adoption of a self-determined motivation and positively influences their performance. .in fact, autonomy means the desire for choice and control, to be an actor in one's learning, to feel the will that accompanies it in all activity.

It is recognized that a teacher should use a style supporting autonomy in order to nurture students' basic needs, to develop their self-determined motivation. .but so far these three needs have only been studied together, they have never been studied independently, so little is known about the exact link between each need and the development of self-determined motivation. .however, it is possible that an effective dominance relationship exists between these three needs which elicit self-determined motivation in the student, therefore if all three needs are satisfied. .one of them can influence the self-determined motivation of the student more than the others, to date there is not yet a fine enough study to determine if there is an order of priority in the satisfaction of the needs.

1.3. Formulation of the problem

Autonomy in effective learning mobilizes a strong responsibility on the part of the learner at the cognitive, affective and conative level; because we say "we only integrate what we have learned ourselves" that is to say that the integration is done as soon as there is an appropriation in .his learning. Without these notions, autonomy in learning would be called into question. this being the case, the difficulties related to learning do not come only from the simple disruption in the process of acquisition, motivation, commitment, but also from the level of metacognitive knowledge by the students which could constitute a real obstacle. .because learning is considered successful when the learner is able to use his intelligence outside the presence of his educator (Hameline, 1995), therefore to learn autonomously is to free himself from the grip of the teacher in order to control his own cognitive activity .Indeed, in a school context where we advocate new approaches, we will ask the pupil to develop his functional autonomy and his intellectual autonomy, that is to say to do alone but the observation is clear: he is not uncommon to notice problems relating to autonomy students in their learning due to lack of ownership by these students of their learning activities; the following phenomena are then recurrent: 50% of students cannot detach their imagination. In assessments, when faced with exercises that require evocation, attention and understanding they do not. They just want to find an answer to the problem at all costs. .these students are also in difficulty because they have no contact with their evocations, they ignore what is going on in their intellect and which could indeed be very useful for them to be successful.

We have the low participation of students in tutorials or in classroom interactions, in fact the information collected from some teachers asserts that nearly 20% to 25% of students do not participate in the classroom or during presentations when there is for example a .work to be done on five students, so one student does the work.55% of these students do not master what they know concretely; they are more for memorization and restitution when the time comes, without however having control over their ways of learning or their skills and limitations: many said they only have one learning technique, reading to recite. During evaluations they have difficulty answering analytical or argumentative questions, some do not know how to proceed and others have no idea how to go about it; when faced with a test, they are quick to answer without, however, taking the time to understand the questions.

to this is added a poor self-esteem, suddenly it prevents them from effectively engaging in a task, learning effectively, being able to evaluate themselves to lower their learning goal and have the personal conviction of what 'they do without doubting it regularly or self-deprecate.80% of these students rarely do monitoring or feedback and the few from the second cycle that we had to meet at the high school of Ouro Tchede do not ask themselves if they are achieving their goals, if they are doing it well way. These students find it difficult to question what they really have to do with a task.

When faced with failure, they think only of turning to teachers or peers for better explanations in other words, they use little or no metacognitive resources, all of this reflects a lack of autonomy in learning.

Based on these observations, it is important to ask the following question: does metacognitive knowledge influence the learning autonomy of second cycle students of the high school of Ouro Tchede? .more specifically, does the management of mental activity, the awareness of one's way of learning, self-confidence, self-knowledge influence the autonomy in the learning of students in the second cycle of high school? 'Ouro Tchede?

The answers to these questions allowed the formulation of a general hypothesis and four specific ones, in particular, metacognitive knowledge influences the autonomy in the learning of the students of the high school of Ouro Tchede. .more specifically, the management of mental activity, awareness of one's way of learning, self-confidence, self-knowledge influence the learning autonomy of students at the high school of Ouro Tchede.

The general objective is to show that metacognitive knowledge influences autonomy in the learning of second cycle students of the high school of Ouro Tchede. .very specifically, we propose to show that the management of mental activity, the awareness of one's way of learning, self-confidence, self-knowledge influences the autonomy in the learning of students of the lycée d ' Ouro Tchede.a scientific interest has been established and this relates to the problematic of pupils in difficulty concerning the fact that metacognition helps the development of student self-esteem and motivation. This aspect is also based on the difference between failing students and successful students; indeed the latter, because of their metacognition are aware that it is their actions which are at the base of their success thus, the failure does not appear as inevitable or uncontrollable as of .when a sense of self-efficacy develops and students can take a positive look at themselves which helps develop their self-esteem and their motivation to succeed gives meaning to their learning.

2. Methodology

The target population is all the students targeted by this study, for whom we want to collect information and extrapolate the results. .our target population is represented by the students of the Second Cycle of the Lycée of Ouro Tchede, that is to say the students of the second, first and final classes. In total we will have an enrolment of 633 students.

Our sample consists of 195 students. we used the stratified sampling technique because the sample is drawn from the different classes of the Second Cycle, our choice of the Second Cycle is justified by the fact that at this stage, the level of cognitive development of the students is higher and they are older too, likely to become aware of their ways of learning and to develop their autonomy on their own. ..Therefore we will have a representative sample for each class and in each Series (A, C, D). The sampling technique is the stratified one. The stratum refers to learners in the second cycle classes according to gender .It was on the basis of this technique that the study sample was drawn and we therefore used several data collection instruments. We had to carry out semi-structured interviews with 7 teachers and a general supervisor.

Table 1: Size of the study sample and distribution of students by level

levels	Sizes of the population	boys	girls
Form five	53	28	25
lowersixth	91	48	23
Uppersixth	51	33	18
Total	195	195	195

To collect information on this topic, we used two research techniques: the interview and the questionnaire.

The interview guide is a written list of topics related to our assumptions. .and these themes or questions may not follow in order depending on the participants. This process is done face to face between the investigator and the interviewee. As part of our study, we used the interview guide that we established based on our research hypotheses. .these constitute open themes with open questions. These interview themes relate to the management of mental activity, awareness of one's way of learning, self-confidence, self-knowledge and autonomy in learning. .the questionnaire is made up of closed questions and puts forward a preamble, the identification of the interviewee which is based on variables related to gender, class, series and religious obedience; the body of the questionnaire being made up of the variables of .research hypotheses. The questionnaire is presented in the form of small tables. It offers statements for which subjects must position themselves on a scale similar to that of Likert but comprising, for its part, four modalities:

Completely disagree: the statement never applies;

.somewhat disagree: the statement rarely applies;

Somewhat agree: the statement applies often;

Completely agree: the statement still applies

The data collected is processed using SPSS software in version 20.0. .they are analyzed quantitatively and qualitatively using the simple linear regression test for quantitative data and content analysis for qualitative data.

3. Results

in this section, it is a question of verifying the significant relationship that could exist between metacognitive knowledge and autonomy in the learning of students of the Second cycle of the high school of Ouro Tchede.

3.1. the management of mental activity as the basis of autonomy in student learning

Table 2: Summary of the Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,413	,170	,166	,87073	1,599

According to table 2, the value of the Dublin and Watson statistic which is 1.174 is between [0.4] so there is no autocorrelation of the errors. Here, we see that the correlation coefficient is equal to 0.413 which means that the link between VI1 and DV is relatively average. .r-deux which is the coefficient of determination is equal to 0.170 which means that 17% of the variation in autonomy in the learning of the students of the Second cycle of the high school of Ouro Tchede is explained by variables related to the management of the activity mental.

Tableau n°3: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30,054	1	30,054	39,641	,000
	Residual	146,325	193	,758		
	Total	176,379	194			

The ANOVA table shows us a Fisher's F of 39.641 significant at the 5% level which is greater than (Flu) i.e. theoretical F, which signifies the good fit of the model at a level below 5%.

Tableau n°4: Finale de l'analyse Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,430	,117		20,690	,000
	The management of mental activity	,324	,051	,413	6,296	,000

The table shows that the value of Beta 0 (2.430), Beta 1 (0.413), and the associated Student's t is 6.296 with a p = (0.000). Based on the analysis of the linear regression model, this corroborates the prediction of hypothesis (H1) and means that the relationship between the two variables is positive. .therefore the null hypothesis (Ho) is rejected and the alternative hypothesis (Ha) is accepted. We can conclude with a margin of error of 5% that we are wrong that the management of mental activity influences the autonomy in the learning of the Second Cycle students of the Lycée d'Ouro Tchede. .these results corroborate the conception of Antoine de la Garanderie for whom learning the principles of mental management means becoming more efficient and autonomous in his learning, whatever the field. .during mental activity management sessions, we learn to become aware of our sensations, to construct a mental object through the interpretation of its sensations, to improve its perceptual activity, to evoke past knowledge. .it will also be a question of establishing a realistic project for the learner and according to this author mental management is a journey within oneself, an introspective journey which will lead the learner on the path of autonomy and the performance. .mental gestures are essential in the learning process.

3.2. awareness of one's way of learning as a basis for student autonomy in learning.

Tableau n°5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,549	,301	,297	,79921	1,463

According to the table presented above, it emerges that R, the correlation coefficient is 0.549 and that R-deux which represents the coefficient of determination is equal to 0.301, which means that 30.1% of the autonomy variation in the student learning is explained by the variable of .awareness of their way of learning.

Tableau n°6: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	53,103	1	53,103	83,138	,000
	Residual	123,276	193	,639		
	Total	176,379	194			

On the Anova table, Fisher's F is equal to 83.138 which is significant at the threshold of 0.000 (less than 0.05) and greater than (Flu) this confirms the good quality of the model at a significance level of 5%.

Tableau n° 7 : Analyse finale de Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,538	,176		8,735	,000
	the consciousness of the way to learn	,602	,066	,549	9,118	,000

The analysis of the linear model shows that there is a significant link between the endogenous variable (autonomous in learning) and the exogenous variable (awareness of one's way of learning). .indeed we notice that the associated Student's t value is 9.118 so it is greater than 2 and that the significance is less than the 5% threshold. .then, the direction of the relationship is verified by the sign of Beta0 which is 1.538 and Beta1, 0.66 which are all positive confirming the positive effect of the explainable variable on the explained variable.

.thus, from the equation we can say that awareness of one's way of learning is a positive function of autonomy in learning. .in the same logic Morin says that "awareness of his reflective way of learning mobilizes self-awareness and commits the subject to a critical reorganization of his knowledge" If the learner arrives at the level where the mind considers itself - even, this will allow him ".self-description, self-correction and self-development of their learning ".balas (1998) says that "when man learns, he uses more or less conscious and more or less effective approaches" through this sentence we see the importance of awareness in his act of learning and especially for that it is effective. In traditional education, to bring the pupil to a certain awareness of his learning, he is naturally asked "how did you do that?" How did you achieve this result?.» This allows the student to review their learning a little and give meaning to their act of knowing

3.3. Self-confidence as a factor favorable to autonomy in student learning.

Tableau n°8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,580	,337	,333	,77847	1,284

According to the model Summary table, the correlation coefficient is 0.580 and R-deux is 0.337 which means that 33.7% of the endogenous variable is explained by the exogenous variable.

Tableau n°9: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	59,418	1	59,418	98,046	,000
	Residual	116,962	193	,606		
	Total	176,379	194			

On the Anova table, Fisher's F is equal to 98.046 which is significant at the threshold of 0.000 (less than 0.005) and greater than (Flu); this confirms the correct adjustment of the model.

Tableau n°10: Analyse finale de Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,069	,208		5,130	,000
	Self-knowledge	,672	,068	,580	9,902	,000

According to the table, there is a significant link between the dependent variable (autonomy in learning) and the independent variable (self-confidence). .indeed, we notice that the Student's t value is 9.902 so it is greater than 2 and that the significance is less than the 5% threshold. .also we note that, the direction of the relation is verified by the sign of Beta which is 1.069 and Beta1, 0.580 which are both positive, confirming the positive effect of self-confidence on autonomy in learning. .we can therefore conclude that the null hypothesis (H0) is rejected and the alternative hypothesis (Ha) is accepted with a margin of error of 5%. .consequently having a good self-confidence influences the autonomy in the learning of the students of the Second cycle, We understand why in a tense emotional atmosphere and under stress, the student is not able to develop his cognitive skills and does not is not available for a .independent learning. Post (1993), considers that an individual's ability to learn depends on their emotional state. Learning on your own is not just memorizing knowledge, in order to learn effectively you have to believe in your ability to do so. Emotions come into play. .think, for example, of a person who has some power over you as the teacher and who would say to you, "I need you to do this task. I know you're not going to get there since you never get anything done. But we can always try". .how do you think you approach this task

and what would be the end result? There is no doubt that there is a great chance that you will fail at this task. Self-esteem is defined as the positive assessment of oneself. .it is based on the awareness of one's own worth and of one's inalienable importance as a human being, it is not only a question of having qualities, skills, aptitudes and know-how which all one each is provided. .It is first of all a matter of knowing them and being aware of them as assets which allow any new situation to be approached serenely and succeed. ."I suck in class", "it is useless that I study, anyway I will not succeed" ... these reflections are from students who do not believe in themselves, an experience of failure shakes the self-confidence of the student, following which he divests himself in the involvement of his learning and .there is therefore a risk of poor performance. Research shows that a student's success depends not only on their "objective" skills, but also on their confidence in their learning abilities. .students with above-average cognitive skills may therefore have low self-confidence, with all the associated negative consequences. .Conversely, students with low initial skills but believe in their ability to use them effectively can greatly develop their skills.

3.4. Self-knowledge as the basis of autonomy in student learning.

Tableau n°11: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,439	,193	,188	,85896	1,261

According to table 11, it appears that the cross between the independent variable and the dependent variable displays a correlation coefficient R of 0.439, indicating a more or less good association. .the predictive power of the model is measured by the coefficient of determination R-squares with a value of 0.193 or 19.3%. The latter would mean that our model is relatively weak and that learning autonomy is 19.3% based on self-knowledge.

Tableau n°12: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	33,982	1	33,982	46,057	,000
	Residual	142,398	193	,738		
	Total	176,379	194			

Table 12 above shows that, Fisher's F is equal to 46.057 which is significant at the threshold of 0.000 (less than 0.05) and greater than (Flu), i.e. the theoretical F; this confirms the good quality of the model at a significance level of less than 5%, hence the power explanation of the model appears satisfactory since Fisher's F is significant at the 5% level. Thus we reject the null hypothesis (H0) and state that the regression is significant as a whole.

Tableau n°13: Analyse finale Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,690	,211		8,029	,000
	Self-knowledge	,419	,062	,439	6,787	,000

According to the table, there is a significant link between the dependent variable (autonomy in learning) and the independent variable and the dependent variable. .indeed, we notice that Student's t value is 6.787 so it is greater than 2 and that the significance is less than the 5% threshold. .in addition the meaning of the relationship is verified by the signs of Beta0 which is 1.690 and Beta1, 0.439 which are positive, therefore self-knowledge influences autonomy in student learning. lafortune & St-Pierre (1994) call “self-knowledge” as a learner, which refers to the knowledge that the learner has developed of his own characteristics, of his own relationships and of his comparisons to other people. Who learn, and .general knowledge about the learning that he has been able to acquire, therefore knowing himself well means being able to choose suitable objectives, for achievable independent learning.

3.5. Discussion of the results

3.5.1. Management of mental activity and autonomy in student learning

In view of the results obtained, a statistically significant link emerges between the management of mental activity and autonomy in the learning of Second Cycle students of Ouro Tchede high school. .the significance rate is relatively average, this is explained by the fact that 36.5% of respondents use their mental gestures very little. .most of these learners have a lot to develop in mental gestures

which are not used independently and which are lacking in learning. The result is the poor performance observed in several subjects. .these mediocre performances are for most of these students a source of discouragement in their learning.

The literature tells us that the management of mental activity has three functions: planning, control and regulation. .Concerning the first function, which is planning, Legendre (1993) tells us that "planning" has the meaning of an operation of putting in order or in sequence a set of elements according to the determined criteria. .planning becomes a possible action or procedure to anticipate and organize, as long as it has required the use of knowledge about oneself and about the tasks. .this amounts to saying that by planning the student necessarily becomes active, autonomous and constructive of his learning process. Planning therefore becomes a very useful function for the student. .in fact, initially it allows him to organize each work step and thus select each strategy and procedure to be used at a specific time. This optimizes the student's activity secondly because it generates an anticipatory representation of the action. .By mentally projecting actions and evaluating their potential results before implementing them, planning allows you to spot a series of errors in the choice of procedures.

.The second function relating to control constitutes a phase of monitoring one's own behavior which makes it possible to ensure that the actions taken are in line with the goals set. It is also a matter of evaluating the progress of the accuracy of the procedures used. .in order to be able to exercise this control, one would have to have an idea of one's preferences in terms of working methods.

.Finally, the third function, regulation, has two aspects according to Tardif (2006): hetero-regulation (which concerns external elements such as the study environment or relations between peers) and self-regulation. This is precisely the second aspect that interests us, namely self-regulation. .the learner at this level examines his methods and what has not worked in order to readjust them and from these readjustments, improve their learning.

.Ultimately, in view of the studies carried out and Antoine de La Garanderie's theory of mental management, we can conclude that there is a link between the management of mental activity and autonomy in student learning. .however, it is up to the learner to make the effort to feed their mental representations otherwise the mental gestures will run empty.

3.5.2. Awareness of one's way of learning and autonomy in student learning

In view of the results, it emerges that there is a significant link between the awareness of one's way of learning and the autonomy in the learning of the Second Cycle students of the Lycée d'Uuro Tchede. .the student must become aware of his way of proceeding in a learning or problem-solving situation. Because everyone learns differently, there is no inevitability or devaluation of alleged poor results, from the moment a student knows his way of learning, he can adapt to any type of teaching and to be able to be autonomous in their learning. .the awareness we have about our ways of learning determines the willingness we will put into our learning and success. .Awareness of one's way of learning is an integral part of the process, it allows students to become aware of their learning methods and take the opportunity to adjust and advance their learning by assuming increased responsibility for it. .however, the results obtained with these students and through the statements of their teacher's show that 88.7% of these students are not really aware of their way of learning and this negatively influences their school results or performance.

3.5.3. Self-confidence and autonomy in student learning

In view of the results, it emerges that there is a significant link between self-confidence and autonomy in the learning of Second Cycle students. .for a student, having self-confidence means feeling able to face situations in his learning; it is based on a subjective feeling and an objective analysis of these skills. Feeling confident motivates him to use his various skills. .the act of learning is intrinsically linked to the student, who will have control over whether or not to enter knowledge. This behavior directly appeals to the student's self-confidence. .In addition, many studies highlight the links between emotions and learning, it is about the importance of developing emotional competence in order to promote autonomy in one's learning (Shelton, 2000). .the feeling of personal effectiveness is defined as "the judgment that a person makes of his or her ability to organize and use the different activities inherent in carrying out a task to be performed" (Bouffard-Bouchard & Pinard, 1988: 411) in other words, it is esteem of a person regarding their competence to perform a task. This concept shares, with most current conceptions of motivation in school, the idea that a learner's beliefs in his abilities to be successful in his learning play a crucial role in his engagement and performance. .many studies show that students are personally and rarely involved in an activity that they are not confident in doing. .Similarly, learners

generally tend to lose interest in activities in which they feel inefficient, it is in this sense that Bandura (1997) confirms the existence of an important link between what an individual thinks of him in a domain and its performance in that same domain. The various studies finally show that there is indeed a link between self-confidence and autonomy in student learning.

3.5.4. Self-knowledge and autonomy in student learning.

In view of the results, it emerges that there is a link between self-knowledge and autonomy in learning. However, one observation emerges after the surveys: 50% of Second Cycle students cannot really state what they know, their skills, preferences or working methods, and finally be able to be independent in their learning. Self-knowledge is seen as this skill which aims to develop in students the knowledge that enhances their skills, their physical and mental capacities, their tastes, their strengths on which they can rely in situations difficult .learning. For independent learning, you must therefore have an idea of your preferences in terms of working methods. Sandrine Dirani (2019) is convinced in one of her writings that there is no successful learning without knowing yourself. .self-knowledge is a basic quality for any individual, it is even more so for the learner because it corresponds to the path that each student takes, from the awareness of his resources and his lacks, his ability to overcome obstacles, correct mistakes and .find solutions to act. Ultimately we can say that there is an associative link between self-knowledge and learning. This association influences the autonomy of any learner, and can significantly change the results of even the weakest, when they are called upon to use them.

Conclusion

Ultimately, the subject that has been the subject of this study is entitled "metacognitive knowledge and autonomy in learning: the case of second cycle students of the high school of Ouro Tchede". .the purpose of this research, which is both quantitative and qualitative, was to verify whether there is a link between metacognitive knowledge and autonomy in learning. .We have therefore come to the conclusion that the use of metacognitive knowledge significantly influences the autonomy in the learning of second cycle students of the Lycée of Ouro Tchede. .in view of these results, each actor in education must make it an obligation to become deeply involved in the teaching / learning process so that the use of metacognition is truly effective or at least partially in all learning activities in the school. .a good action will go through a communication synergy between these actors so that all are fulfilled, the student in his autonomy and the teacher in his teaching / learning process.

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