

Metacognitive Autonomy and Cognitive Efficiency of Masters Students in the Faculty of Letters and Social Sciences at the University of Douala

MGBAMBOUO MONGBET Mireille, PhD student

Cognitive Psychology, Faculty of Letters and Social Sciences, University of Douala

NKELZOK KOMTSINDI Valère, Professor

Cognitive Psychology, Faculty of Letters and Social Sciences, University of Douala

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ABSTRACT

In a university environment where the role given to autonomy in learning remains primordial but which, curiously, seems paradoxical in view of unsatisfactory qualitative achievements, this article proposes to identify the type of autonomy likely to boost the cognitive efficiency of Master's degree learners. Deciphering the cognitive processes before, during and after learning, the theoretical field as well as the works that feed this study, concern awareness, self-efficacy, self-determination and the mobilisation of metacognitive strategies. The four hypotheses, derived relatively from these dimensions, were approved in the light of the results of the survey conducted among 252 Master's subjects of the Faculty of Letters and Social Sciences of the University of Douala (FLSH of UDla). Selected by cluster probability sampling and subjected to a self-assessment questionnaire, the data was analysed using Pearson's r correlation test. From this analysis and interpretation, it was found that there is a significant relationship between metacognitive autonomy and cognitive efficiency of the Master's learners at the FLSH of UDla. These results have been discussed with works that focus on social reproduction, emotional management and pedagogical practices (Bourdieu and Passeron, 1970; Goleman, 1997; Fonkoua, 2006). However, it should be noted that the metacognitive learner is sufficiently autonomous and capable in his or her learning to achieve effective goals.

INTRODUCTION

Multidimensional and ideologically charged in the literature, autonomy is so and precisely in the educational ball of wax. By transcending traditional pedagogy and to some extent physical, moral or reciprocal autonomy, autonomy in learning has become the lever for academic success since the 1990s. Curiously enough, the problem remains worrying in the educational environment in general and in universities in particular, where the quality of success remains unsatisfactory, in spite of numerous research studies in this area. In relation to this inefficiency, this study is oriented towards a solution that aims to remedy the limited capacity for metacognitive reflection among students at the

University of Douala and specifically those at the FLSH. The question arises as to how these learners, who, since kindergarten are trained in a competency-based approach and who, in higher education, are moulded in the LMD system, are still not responsible in their learning for cognitive efficiency purposes. In the interest of a meta-success, this article focuses on cognitive efficiency, which cannot be defined only through grades or diplomas obtained, but through a multifactorial reality. It takes into consideration the products of the system, the resources and the means used to solve problems. To be valued, this efficiency is stimulated by affective, cognitive and metacognitive skills. We define the cognitively efficient student as one who selects from a repertoire of means and procedures those best suited to achieve the task. Achievement that is done with maximum confidence and minimisation of time and cognitive cost.

In order to promote qualitative success, the improvement of learners' cognitive efficiency is now the objective of authors who take a cognitivist perspective. Stenberg (1985) emphasises the speed of achievement in assessing performance; Maitre (2013) argues for a logic of factor optimisation. In order to assess and mitigate learner inefficiency, Loarer et al (1998) opt for cognitive educability; Ruph and Hrimch (2001) focus on the construction of a cognitive efficiency workshop. This anchor flow shows the relevance of the problem of inefficiency in learners. Explicitly expressed in the lengthening of the curriculum, the change of course of study and the failure rate, the presence of this permanent phenomenon in universities leads Romainville and Michaud (2012) to use the expression 'large numbers' to characterise the failure and drop-out rate of students in these environments.

In Canada, 30% of students do not obtain their certification (Grayson & Grayson, 2003). In France, almost two thirds of students leave without a degree (Stromboni, 2017). Specifically, at Master's level, less than one in two students obtains the degree in two years (Fouquet, 2013). According to the survey conducted by Legout and Mandry (2016) in France, out of 114491 students enrolled in M1 for the first time in 2013, only 61146 obtained their M2 in two years (session 2015). In this vein, and according to these authors, it turns out that among the criteria that most influence the chance of success in a Master's degree, which are age, writing the dissertation, selection at the entrance to M2 and repeating a year, academic success is favoured at 65.8% by repeating a year (Fouquet, 2013). This repetition expresses a speed of achievement that is not respected. This problem of failure is decried in the African context by authors such as Akoué (2007). Precisely in Cameroon, Bomba, Fozing and Mgbwa (2022) reveal in their work that students in Cameroonian universities are still failing despite the LMD reforms. One of the future consequences of these failures is that they unfortunately do not satisfy the job market. In this mould of academic failure, the state of performance at UDla is not exempt. It is recorded between 2017 and 2018, a disparity in enrolment at FLSH of about 60% between Master's entrants and leavers (DSA-EEC, FLSH). A retrospective look at our psychology class bears witness to this sad reality: of the four score we were in Licence (2014-2015), 60 arrived in M1 and 45 selected for M2. Of these, only 22 defended their thesis in two years (2017-2018). Particularly, in the cognitive psychology specialisation, of the 20 or so we were in M2, only 7 defended their Master's degree in two years. To answer the question of how Master's students, supposedly 'adapted' and actors of their learning, are still failing, and work like that of the Union Nationale des Etudiants de France (UNEF, 2012) will make contributions. For them, the University has often privileged philosophical or managerial debates to the detriment of practical solutions, despite the advent of the Licence Master Doctorat system. Notwithstanding this approach, Barth (1993) argues instead that failing learners have passive knowledge of their learning.

Indeed, the master's students of the FLSH of the UDla are not even aware that they are in a research cycle. Unaware that learning is a process subject to self-monitoring (Chicoine, 2016), they have skills on the fringes of the ability to control themselves and the environment. They are prone to procrastination and plagiarism in tasks assigned to them and have 'edges' during assessment. For student assignments and presentations, they are usually fixed in the course material and during presentations they find it difficult to distance themselves from their materials. They feel incompetent to do without "edges", without "teachers", or without "presentation materials". They thus find it difficult to stimulate adequate cognitive processes in their dissertation and do not even seem to be

aware of their situation. Their presence in organised seminars and conferences is in the minority. Analysis of Nordell's (2009) work shows that students who need more help are not always aware of this ; in one of his workshops on learning strategies, the weakest students were in the minority (although this was a voluntary workshop). It is therefore admissible that if decades of research (Holec, 1991 & Camilleri, 2002) have not allowed autonomy to occupy a place commensurate with its importance in academic success, the problem is one of insufficient content with regard to the learner's limited knowledge of his or her knowledge. Indeed, the metacognitive aspect in the implementation of autonomy, which will impact efficiency in these learners, is neglected. Also, the aim of this work is generally to achieve success, which does not include the notion of efficiency.

Cognitive efficiency, in the sense of "intelligent novice" (Brown & Campione, 1990), qualifies subjects who, in the same learning context, learn faster than others. But then, in view of the above-mentioned failures and observations, it turns out that these "intelligent novices", selected for the M2, have learned their job as students without acquiring metacognitive autonomy. Authors such as Renzulli (2015) believe that if these students fail, it is because they have not added to autonomy the necessary rigour to succeed at this level of study. This rigour, interwoven into the process of autonomy, directs us to their level of reflexivity, self-criticism and self-management of learning. The notions of knowledge about oneself and knowledge about the reason for this knowledge are thus initiated; a logic that fits in with the perspective of Ruph and Hrimech (2001). In this vein, Bouchard (2009) maintains that these students who fail do not know what they know, neither in knowledge, nor in skills, nor in strategies. The cause of their failure (or success), attributed to uncontrollable factors, inhibits their personal initiative. It will be accepted that autonomy, which manifests itself through consistent personal work, is of particular interest. Taken in the sense of "meta-driving", the autonomy project, conceived by pedagogy for the learner, must now be appropriated by the learner to become a project for himself. Mailles-Viard (2015) defines autonomy as a complex set of cognitive activities facilitated by reflexivity, a sense of personal efficacy, creativity and self-evaluation; Nkelzok (2009) introduces the notion of metacognition. The autonomous student is one who knows how to learn (Quintin, 2013); this knowing how to learn involves awareness, execution and evaluation. Metacognitive autonomy is therefore structured around the dimensions: awareness (Piaget, 1974), self-efficacy (Bandura, 2003), self-determination (Deci and Ryan, 1985) and mobilisation of metacognitive strategies (Flavell, 1976).

These works have allowed us to give statistical meaning to our observations. On self-efficacy, for example, we referred to the self-efficacy scale of Stankovic and Luthans (1998) which we contextualised. The following indicators were retained: identification of one's potential and limitations, belief in oneself, perception of the completion of an activity without plagiarism (internet, course or classmate), fixation of the achievement without support ("edge"). Indeed, from the observation conducted on our cognitive psychology class (20 students), 12 out of 20 claimed to be unable to present a paper without support, to compose without "edges" or without asking "beside" whatever they had learned. 8 others, holding a strong belief in themselves, advocated an assessment without interference for more concentration. Of the 12, 1 defended at the same time as the 6 eighths (1 out of 8 having defended a year later). In other words, 75% of students who demonstrate metacognitive autonomy in their learning under a self-efficacy facet are efficient. Thus, to the question of why the inefficiency of the Master's students of the FLSH of the Udla, it is necessary to show that the metacognitive autonomy through the declined dimensions, influences the cognitive efficiency of the learners. As a theoretical basis, we relied on motivational principles.

By making the motivational content explicit, the need is the basic substance for the energy to be initiated and the direction to be followed in the pursuit of the goal. The focus here is on motivational content. For Campbell et al (1970), to speak of motivational content is to seek to understand the intrinsic sources of our behaviour. In a restrictive academic context where the goals are generally set by the pedagogy, it is through intrinsic motivation that the student will manage to give himself a line of conduct and room for manoeuvre.

In fact, in the motivational vessel, because the subject is motivated, this gives rise to awareness. According to Piaget (1974), the learner's awareness is the necessary condition for the process of conceptualisation and conscious identification of the purpose of his actions to begin ; it is the basis for metacognitive anticipation. Awareness, from the periphery to the centre, allows the subject to know what he or she knows and what he or she does not know, to adapt and become increasingly autonomous. Nkelzok (2009) argues that autonomy will be accompanied "by achievement motives that would be based on the state of awareness ; this awareness is usually about the goals, ends and projects that the learner sets for himself during a period and during his course" (p.136). This theory points to the idea of an inclination to pursue goals with awareness. However, in order to do so, the subject must have self-confidence ; Bandura (2003) refers to this as a sense of self-efficacy.

Bandura (2003), in introducing the concept of self-efficacy, expresses confidence in one's personal ability to carry out the project and the probability of success. People with a positive sense of self-efficacy see difficulties as a chance to succeed. For the author, autonomy in learning is governed by perceived self-efficacy. This feeling of competence will enable them to set themselves desires and challenges. This desire will initiate an impulse of commitment and perseverance to achieve the objectives.

In the logic of self-determination, Deci and Ryan (1975 ; 1985) argue that true autonomy only exists when the learner can see the goal as emanating from him or herself. Commitment (a key concept in self-determination) represents the set of psychological forces that interact to encourage the individual to maintain a line of thought and action towards a task or project that is important to him or her. As a result of self-determined motivation, commitment will be the guarantee of increased performance in learners. Self-determination evolves representations of what learning is, so as to develop metacognitive knowledge for the purpose of efficiency.

Metacognition, conceptualised by Flavell (1976), refers to the knowledge and control that a cognitive system can have of itself for the achievement of a goal ; through self-reflective awareness or intrinsic discipline (Nkelzok, 2009). For the latter, the management of mental activity requires a series of developments in cognitive activity : goal setting, planning, control, regulation and adjustment. In fact, the learner's success goes beyond knowing how to learn ; it requires metacognitive skills (Karsenti, 2006). Still called metacognitive regulations, they come into play following metacognitive experiences derived from metacognitive knowledge and constitute the manifestation of the capacity to control oneself and the environment (autonomy); control that guarantees the achievement of efficient objectives.

I- METHODOLOGICAL PROTOCOL

The target population is all UDla Master's students and the accessible population is FLSH Master's students. The sampling is cluster sampling because the population itself is made up of independent groups. The sub-populations are externally homogeneous and internally heterogeneous. The streams were recorded according to the respective departments (ten). To determine the number of clusters to be sampled, we first defined the step size, which was set at three (the steps are numbered from 1 to 10 in circles). The names, written on carefully folded pieces of paper, were placed randomly in these circles. The first step was used as a count, and the numbers 1, 3, 5, 7 and 9 formed the clusters (Psychology, History, Communication, Sociology and Geography). The number chosen was based on the sample size estimation table of Dépelteau (2011: 233). As our passage was made in the second semester, the criteria of new, repeating or overlapping are included.

Being ordinal qualitative in nature and correlational exploratory in nature, a Pearson's r correlation test was necessary to establish the dependence between the variables. The analyses were conducted in several dimensions (univariate and bivariate). As for the data collection technique, it is included in the "off-line" methods. Indeed, the items handled are derived from the dimensions of metacognitive autonomy. The measurement tool is the self-assessment questionnaire modelled on the Metacognitive Knowledge and Management of Mental Activity (COMEGAM), which we have contextualised as the

"Metacognitive Autonomy and Cognitive Efficiency Questionnaire (MECQ)". This was modified and adapted following a pre-survey of 50 students at the FLSH of the University of Douala. For each sub-dimension, five items were selected. The awareness items are : definition of school goals, need for causal explanation, conceptualisation, evaluation of means to achieve these goals and reason for choosing these means. Those for self-efficacy are presented in the introduction. For self-determination we have: intrinsic motivation, degree of responsibility, cognitive engagement, task participation, perseverance in problem solving. The mobilisation of metacognitive strategies is structured by: explicitness of strategies, monitoring, self-monitoring, self-evaluation and self-regulation. Finally, two items measure cognitive efficiency. These are the maximisation of resolution with minimum effort and the percentage of validation in the first semester (index of effort with minimum time). The questionnaire contains 30 questions. The sub-dimensions are coded on the 4-point Likert scale, to avoid neutrality of responses (1: always, 2: often, 3: sometimes, 4: never). The cognitive efficiency variable was coded on a 3-point scale (1: high, 2: average, 3: low). Beforehand, we ensured the consent of each participant. During the test, after having been given instructions, the respondents independently felt challenged in their singularity and examined themselves in situations (before, during or after). Given the rate of absenteeism, not all the students were in the room ; the questionnaire was distributed to all those present, after which the cases of withdrawal were set aside until the estimated number of students was reached. Processing is done using the SPSS 20.0 software package.

II- RESULTS, ANALYSIS AND INTERPRETATION

The analysis and interpretation are made following the presentation of the results

Table N°1: Distribution of participants according to their level of autonomy and efficiency

		Number	Percentage
Awareness	Always	95	37,7
	Often	99	39,3
	Sometimes	57	22,6
Self-efficacy	Always	128	50,8
	Often	73	29,0
	Sometimes	24	9,5
	Never	26	10,3
Self-determination	Always	115	45,6
	Often	107	42,5
	Sometimes	29	11,5
Mobilisation of metacognitive strategies	Always	128	42,9
	Often	108	42,9
	Sometimes	26	10,3
Cognitive efficiency	Never	9	3,6
	High	72	28,6
	Average	113	44,8
	Low	60	23,8

In relation to the question on awareness in their learning, 39, 3% of the subjects stated that they often ask themselves the question of why and how in any problem solving situation. 22, 6% sometimes became aware in their cognitive activities. Those who are always aware number 95 (37.7%). This means that they move from the periphery to the centre in order to determine how to be efficient. To achieve this, it is essential that they have a belief in their competences. In this vein of thought, 50.8% of the subjects say they always have a belief in themselves. 20.0% often detect their strengths and weaknesses in the performance of tasks; 9.5% do so sometimes and 10.3% never do so. Theoretically, it is argued that a sense of self-efficacy is paramount to subject engagement; learners with a high sense of self-efficacy see difficulties as challenges to be met and not as obstacles to be overcome. In line with this, although the rate dropped from self-efficacy to self-determination, the

rate of subjects who were still self-determined was 45.6%, or 115 subjects.

It also appears that some subjects claim to be self-efficient and self-determined without being aware of it. It would thus be accepted that they venture or engage in their learning blindly. If this were not the case, the 128 self-efficiencies and 115 self-determinants should all always mobilise appropriate strategies for academic success. Relatively speaking, the results reveal that rather 108 subjects (42.9%) always mobilise metacognitive strategies; 108 do so often, 26 sometimes and 9 never. All these behavioural distortions are reflected in their performance, where only 72 subjects (28%) have a high level of efficiency. In other words, according to the first semester assessments, they have a validation rate of 75% or more. 44% have an average level of cognitive efficiency (validation between [50% and 75%]) and 23.8% have a low level (less than 50%). Univariately, if this is the number of learners on the different dimensions, what is the link that can be established statistically between these dimensions of metacognitive autonomy and effort at lower cost?

Table N°2: Summary of the intersections of the dimensions of autonomy* Low cost effort

		Low cost effort		
		High	Average	Weak
Awareness (conceptualization)	Always	51	42	2
	Often	40	57	2
	Sometimes	16	39	2
Self-efficacy (identification of its potential and limitations)	Always	67	61	0
	Often	32	41	0
	Sometimes	5	19	0
	Never	3	17	6
Self-determination (perseverance in solving problems)	Always	60	55	0
	Often	37	64	6
	Never	9	20	0
Mobilisation of metacognitive strategies	Always	72	36	0
	Often	27	75	6
	Sometimes	5	21	0
	Never	2	7	0

The results show that out of 95 subjects who always conceptualise how and why they fail or succeed, 51 have high performance; 42 have medium performance and 2 have low performance. Of 128 subjects who reported always having a belief in themselves for the performance of any activity, 67 had high efficiency, and 61 had medium efficiency. The low level of cognitive efficiency (6 subjects) is found among the 26 who never believe in themselves. In the case of 24 students who are sometimes self-determined, only 9 (37.5%) have a high level of cognitive efficiency and 20 (83.33%) a medium level. On the other hand, for those who are always self-determined (115), the number of subjects with a high level of cognitive efficiency is higher (60, or 52.17%) and the number of subjects with an average level of cognitive efficiency is low (55 subjects or 47.42% compared to 83.33%). Out of 9 subjects who never self-regulate their learning, only 2 of them have a high level of cognitive efficiency (perhaps by chance) and 7 have an average level of efficiency. This reflects the fact that the dimensions in the sense of always favour the high level of cognitive efficiency.

In view of these results, there is an urgent need for master's students to work on metacognition. The correlation analysis will explicitly allow conclusions to be drawn about the nature of the relationship between metacognitive autonomy and efficiency of UDL's FLSH master's students.

Table N°3: Summary of analysis and hypothesis testing

		Test results	Conclusion
Awareness	Pearson correlation	0,182	H ₀ rejected
	Sig (two-tailed)	0,004	H ₁ confirmed.
Self-efficacy	Pearson correlation	0,345	H ₀ rejected
	Sig (two-tailed)	0,000	H ₂ retained
Self-determination	Pearson correlation	0,192	H ₀ rejected
	Sig (two-tailed)	0,002	H ₃ confirmed.
Mobilisation of metacognitive strategies	Pearson correlation	0,362	H ₀ rejected
	Sig (two-tailed)	0,000	H ₄ confirmed.

The approximate significance of 0.00 indicates a relationship between metacognitive autonomy and cognitive efficiency of the Psychology, History, Communication, Sociology and Geography masters students of the FLSH of UDLA. The value of the correlation coefficient different from 0 explains that this relationship is significant. In other words, there is a significant relationship between these dimensions and carrying out activities in less time (i.e. minimising resources). These different dimensions, taken together, constitute a block that will eradicate or at least considerably reduce student failure. The results prove this. Relatively speaking, the percentage of participants with a high level of efficiency is 53.68% for those who are always aware; 52.34% for self-efficacy; 52.17% for self-determination and 66.66% for the mobilisation of metacognitive strategies.

The value of the correlation coefficient of 0.18 at the level of awareness shows a weakly significant link. Awareness, which implies an awareness of the problem to be solved and an awareness of the means to be used, influences the cognitive efficiency of learners. In principle, all those who become aware have to integrate other parameters in their learning processes to be efficient. Concerning the intersection between self-efficacy and cognitive efficiency, $r = 0.345$. This is weakly significant and fits well with Bandura's (1980) logic that learners who do not believe in themselves have little chance of overcoming difficulties. Indeed, poor performance is recorded in subjects who are never self-efficient. The correlation between self-determination and cognitive efficiency ($r = 0.192$) proves the need to involve other parameters. Engagement in an activity, which is self-determined motivation, stimulates self-organisation, which in turn prevents cognitive overload and makes the objectives efficient. The low cognitive efficiency of the participants proves that the motivation associated with this self-determination is much more extrinsic, which indicates a blind engagement according to the results obtained. The value of the Pearson correlation coefficient for the crossover between the mobilisation of metacognitive strategies and participants' efficiency is 0.362. This confirms our prediction that the mobilisation of metacognitive strategies in learning impacts on learners' cognitive efficiency. These strategies provide responses to the subject's behaviour before, during and after the completion of a task. This relevance is supported by Flavell (1976), for whom metacognitive strategies are used most frequently by successful students. This evidence points to the indispensable role of these dimensions in combating learner inefficiency.

Summarising, it appears that the correlation is around the average for the mobilisation of metacognitive strategies and self-efficacy in relation to cognitive efficiency. This shows that these two dimensions play an essential role in qualitative academic success. It can be assumed that the first hypothesis would solve the problem of efficiency; however, since it is not enough to be aware in order to succeed, it is understood that there are several parameters that come into play. After awareness, those who believe in their skills will succeed in being efficient. This will enable them to set themselves challenges; a reality without which they will engage pathetically in problem solving. Furthermore, given the non-linearity between the dimensions of metacognitive autonomy and the level of cognitive efficiency of the participants (e.g. not all subjects who have become aware are efficient), it is likely that there are endogenous factors that can be a source of intellectual difference

between learners. These differential variables are: gender, age, religion, parents' level of education, their socio-economic status, the respondent's course of study, and marital status. These are differential or discriminating elements that make it possible to categorise, but not rank, learners in terms of their autonomy.

III- DISCUSSION

A discussion of the general viewpoint is in line with Goleman (1997) and Fonkoua (2006). These authors respectively believe that efficiency in schools depends on the management of emotions or that the causes must be sought in pedagogical practices. What can be said about each dimension in concrete terms?

Piaget (1974) maintains that the learner who becomes aware performs better. This awareness, taking into account the maturity of the subject, is not endorsed by Nkelzok (2009) who states that disciplinary awareness is not the normal outcome of cognitive development. If this were the case, one would see this competence after cognitive development is complete. In fact, our results do not reveal a low cognitive efficiency in our participants, given their stage of development (they are over 19 years old). Deloache (1981), quoted by Focant (2004), shows that very young children are capable of self-regulating their behaviours, only they are unable to express and make these regulations conscious. For Focant (2004), when the degree of maturity (or expertise) increases, subjects tend to automate certain strategies; there is no longer any awareness. However, it is admissible that strategies cannot be used without first mobilising awareness. Even if students state in the questionnaire that they did not become aware, they would have done so even unconsciously.

Regarding Bandura's (2003) self-efficacy, Nkelzok (2009) argues instead that subjects should attribute their successes and failures to what they do rather than to who they are or believe they are; as in the popular jargon, "it's the work that pays".

As for Deci and Ryan's (1985) self-determination, Toffoli (2016) argues that a learner will be more motivated if they see themselves as the source and main cause of their actions and if they feel competent. Furthermore, a student who enjoys an activity will engage more quickly and intensely. Nkelzok (2009) will say that it is the degree of voluntary commitment to the work and engagement that generally characterises good students. However, for Bourdieu and Passeron (1970), success is not individual in nature, it is socially based; it is a matter of social reproduction.

Concerning the mobilisation of metacognitive strategies, it finds its relevance in Flavell (1976). However, Ballas (1998) states that it is not enough to have metacognitive knowledge to regulate learning, it is at least a question of using it. Indeed, these participants claim to be autonomous (in theory); they know what it means to be autonomous, they know what to do to be efficient, but they do not do it in practice. Their metacognition remains at the first level, i.e. at the level of knowledge about cognitive processes or its products, the second level, which concerns the importance of these cognitions on cognition (active evaluation, regulation and organisation of these processes according to a goal), is not emphasised by them. Otherwise, how can we understand their low level of efficiency, i.e. the fact that they do not have more than 75% validation? They are effective, not efficient. They succeed in action or understand in action, or even in thought, they conceptualise, but they do not construct cognitive tools that would enable them to act on the world. However, Romainville (1993), who highlights the role of the learner's reflection on his or her own learning, states that metacognitive strategies are those frequently used by successful learners.

CONCLUSION

The aim was to determine the relationship between metacognitive autonomy and cognitive efficiency of UDla's FLSH masters students. The results revealed significant links between awareness, self-efficacy, self-determination and mobilization of metacognitive strategies and the efficiency of these learners. Autonomy is slow to take off among learners, even in this era of actualising pedagogy. The consequence is failure, which is in full swing in the university environment and specifically at the UDla. To remedy this scourge of failure, we have found it judicious to add the metacognitive process

to autonomy. In fact, our aim was to show that metacognitive autonomy in learning influences the cognitive efficiency of UDIa's FLSH masters students; hence the correlational link used for all our hypotheses. More distinctly, we have shown that awareness, self-efficacy, self-determination and the mobilisation of metacognitive strategies influence the cognitive efficiency of these learners. The processing, analysis and interpretation of the results of this work show that the learner's responsibility for his or her learning, which is based on a sufficiently elaborate process (metacognitive process), improves performance. The lack of mastery of these sub-dimensions weakens learning to learn. As a "metacognitive behaviour", metacognitive autonomy refers to cognitive and metacognitive behaviours related to academic success. This ending is in line with Nkelzok (2009), who argues that carrying out autonomous work would encourage the development of cognitive and metacognitive strategies; the corollary would be an increase in cognitive efficiency. Moreover, as perfect care is not a prerequisite, the student, far from being an expert, does not have a tailor-made plan for his learning, he is a do-it-yourselfer who readjusts as the context presents itself to him. For this reason, the improvement of students' performance in the Cameroonian context requires that learners as well as teachers get rid of infertile habits to take a posture of "metacognitive strategists". This study contributes, by this orientation, to the engagement of the subject's self in his or her learning where metacognition occupies a place of choice.

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