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Study of the Correlation between Learner Autonomy and Multiple Intelligence

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Abstract: In the framework of Howard Gardner's theory of multiple intelligences, we have studied the possible impact of emphasis on multidimensional intelligence on developing learner autonomy and we asked ourselves if a syllabus designed based on the learners' multiple intelligences help develop learner autonomy more effectively. Autonomy is considered to be a key factor in the promotion of the process of learning a foreign language, through enhancing learner motivation and self-confidence. Nevertheless, it is not always the focus of teaching. We believed it possible to help develop learner autonomy more efficiently, by emphasizing on individual intelligence profiles. Thus, we aim to establish, if and how effectively, an Iranian learner's autonomy is influenced, when reached out to, through his multiple intelligences. In this research, a descriptive and synthetic approach will be applied. After presenting the main theoretical guidelines on which our research is based, we will share results of a field study conducted in this respect, on 30 adult Iranian learners of French as a foreign language (FFL) of the lower intermediate level (B1 of the CEFRL) and analyze the data quantitatively and qualitatively.

Keywords: Multiple Intelligences (MI); Learner Autonomy; Motivation; Self-confidence; Interests.

Introduction

A successful language learner is commonly considered to be an individual with a high IQ, able to act efficiently and produce foreign language statements using knowledge acquired in class. However, the advancement of neuropsychology and cognitive sciences has led us to reexamine our understanding of intelligence. This formerly considered General Factor of intelligence appeared no longer to level up to the complex and multidimensional workings of the mind. In a pedagogical perspective, a theory known as multiple intelligences offers a multifaceted description of the matter, and provides instructors with a guideline for classroom practice by sketching a specific intelligence profile for each learner.

Another factor in successful learning relates to the question of learner autonomy. How a learner views his own learning and his ability to take charge of this process may offer a key to successful acquisition. It is thought that autonomy is built through the process of learning. As true as this belief may be, as teachers, how many beginner learners have we met who are fully capable of planning their own learning, assessing the materials, the techniques and the adequacy of the contents, and how many advanced level learners have we come across who still need a step-by-step explicit roadmap provided by the teacher? In our opinion, motivation and self-confidence are the two principal links between a MI favoring course and the formation of learner autonomy. These two factors influence a learner's view of himself when facing the task of learning and enable him to plan, monitor and assess the process. Unless languages are taught with regard to learner's agency, interests and identity, it is hard to imagine that the widespread plurilingualism advocated by the CEFR be achieved (Little, 2022: 71). After establishing a brief theatrical background of the key factors of this study, we will describe the field study designed and conducted to examine and compare the impact of favoring MI on learner autonomy.

Autonomy in learning

"Autonomy" has been more frequently used in language learning publication especially since the 90s. It is very often seen in the preface of newer foreign language textbooks, in the

objectives defined by the European Framework or different schools. A large literature on autonomy in language learning now exists, with Holec (1981) often cited as a seminal contribution to the field. Benson (2011) provides a comprehensive analysis of key issues in learner autonomy; while there have also been a number of edited collections dedicated to the topic. Henri Holec (1979) defines it as the capacity of taking charge of one's own learning, the responsibility for all decisions on different aspects of learning, such as determining objectives, defining contents and progressions, selecting methods and techniques, monitoring the procedure of acquisition and finally evaluating what has been acquired. He notes that this ability is not inborn but must be acquired either through 'natural' means or formal learning, in a systematic, deliberate manner (Holec 1981, p.3). Wil Knibbeler suggests that "a language learner that is confident in himself, is able to take charge of his own learning" (Knibbeler, 1989, p. 57). Motivation, investment and responsibility are thus indispensable notions to this type of learning. In such a case, the teacher's role is transformed to that of an advisor so as to facilitate the learning process and the institution is expected to provide the necessary conditions for a self-directed learning system.

Traditionally, in a guided learning, the objectives are determined either by the institution or the teacher. They would define the objectives according to what they consider to be indispensable knowledge to the learner. They are determined once and for all, in the temporal framework of learning and are generally applied to a group of learners. In self-guided learning, on the other hand, the learner is the one to define these objectives which will fundamentally lead to the integration of his specific personal dimension(s). These objectives will be based on the ultimate goal he has set and determined by a subjective set of criteria. The contents and the progressions consist of the materials and their sequential organization that allow achievement of the objectives (Holec, 1979: 10).

In an oriented learning, the contents and the progressions are defined by teachers. Yet, in self-guided learning, the learner is the one to define the contents, in a more restricted manner: it is defined to the extent of carrying

out the personal dimension of communication. The progression is not defined based on linguistic content but rather the communicative and thematic priorities that the learner has set. In other terms, strict determined progression is abandoned (Holec, 1979: 13).

In a guided learning the selection of methods and technics is influenced by the underlying theories and methodologies. In a self-guided learning, the learner himself defines the methods and techniques, usually not prior to learning but rather in the course of it, proceeding by trial and error, by applying methods and techniques that he has selected. The methods and techniques a learner usually uses consist of those with which he is familiar, those that he gets to know through other learners, other teaching materials or those he builds himself (Holec, 1979: 15).

The procedure of acquisition consists of both temporal and spatial dimensions: where, when, at what time and with what rhythm does acquisition take place. In a self-guided learning, the learner is the one to decide when learning is to take place how long the sessions are to last, and therefore he is able to adapt his learning rhythm to the pace of his acquisition. When the final deadline is imposed from the outside, he can, to a certain extent, face this challenge and accelerate his learning rhythm, by increasing the amount of time or the number of sessions dedicated to learning, and thus maximizes his output (Holec, 1979: 16-17).

When speaking of evaluation itself, we should distinguish internal evaluation from external evaluation. External evaluation takes place at the end of learning, when the final objective or the intermediary objectives are expected to be obtained (Procher, 1979: 36). Internal evaluation is, strictly speaking, the only type to be an integral part of learning. This is one of the phases of learning which helps the learner assess what has been learnt and have a better idea on what needs to be learnt. On the other hand, the act of learning will not be completed until this evaluation, be it positive or negative, is done (Henner-Stanehina & Holec, 1977). The fundamental characteristic of self-assessment, alike defining the objectives, joins the specific personal dimensions of the learner. The evaluation

criteria are chosen by the learner, based on his own definition of successful learning.

In a more recent study based on a classroom practice by Dame (for a full account of this project, see Little et al., 2016), Little considers that the learners were able to achieve control of their learning process by being required to identify their learning target, choose learning activities and also documenting the learning process. He also believes them to possess a more powerful reflection capacity over their learning than if acquired through merely self-management processes, since a more central role had been attributed to evaluation including self- and peer-assessment (Little, 2022: 68). For Little autonomy is the key to engaging learners in taking the lead to appropriate target language use, which in itself is the path to implicite learning. Hence, the teacher is no longer the instructor in the traditional sense but more of a guide who helps learners engage in a dialogic learning in the target language. However, ensuring that leaners participate in the classroom communication raises a different challenge. For Little, the answer lies in the principal of reflection, by making learners partners in the planning, implementation and also evaluation of learning, which implies the principle of learner control (Little, 2022: 68-69). This is where we believe the selection and planification of classroom practices based on learner identity and interest which we consider to correlate directly with their multiple intelligences will provide them with the means to transfer a part of what they are, into the target language. Little (2016) points out that the language learner autonomy curricula that appear to be the most apt to develop higher levels of proficiency are those in which, individually and collaboratively, learners use the target language to plan, execute, monitor and evaluate their own learning.

To better understand how the concept of autonomy translates into the framework of multiple intelligences it is important to give a brief summary of the theory postulated by Garner in 1983, presenting a multidimensional view of intelligence in the field of teaching/learning which drew many applied linguists and foreign language instructors to itself.

Multiple Intelligence

In its early stages, the theory of multiple intelligence proposed by the developmental psychologist, Howard Gardner aimed at the educational system. Shortly after, it became the guideline of several elementary schools. Gardner notes that intelligence is far more complex than the model presented by Spearman in the early years of the 20th century, better known as the "g factor", a theory that considers intelligence as a general factor, where a positive performance in one cognitive task tends to correlate to another positive cognitive performance. He also argues that the traditional IQ (Intelligence Quotient) tests, such as the famous Stanford-Binet test, merely measure logic and linguistic efficiency and overlook other equally important aspects of intelligence. According to Gardner all these intelligence types can coexist in any individual, yet differ in strength and combination. He claims that they can be strengthened through training and practice. This approach focuses on learner differences and the importance of recognizing individual learning styles, preferences or intelligences (Richards & Rogers, 2001). Gardner defined seven different types of intelligence and went on to add an eighth form a few years later (Larsen-Freeman, 2004):

1. Verbal/linguistic: the ability to use language in special and creative ways.
2. Logical/mathematical: the ability to think rationally, to use numbers efficiently, to see abstract patterns and to reason well.
3. Visual/spatial: the ability to create a mental model of the world along with a sensitivity to shapes, sizes and colors.
4. Musical/rhythmic: the ability to hear and differentiate sound, pitch, rhythm and tone nuances.
5. Bodily-kinesthetic: having a high neuromuscular coordination and being able to express oneself through movement.
6. Interpersonal: being able to work well with people, in groups and having high social skills.
7. Intrapersonal: the ability to understand oneself and to practice self-discipline.
8. Naturalistic: the ability to understand and organize the patterns of nature.

There are no particular goals stated for MI instruction in linguistic terms. MI pedagogy focuses on the language class as the setting for a series of educational support systems aimed to turn the language learner into a better designer of his own learning experience: an autonomous individual in terms of language learning, capable of taking his learning process in his hands. This learner is expected to be more empowered and more dedicated to his learning compared to a learner in a traditional classroom. He is, therefore, more goal-directed and of course a better second language learner (Richards & Rogers, 2001).

Lazear (1991) proposed a four-stage sequence as an alternative for a foreign language classroom syllabus. He considers that the first step is to awaken the intelligence through multisensory experiences. Next, the intelligence must be amplified: students strengthen and improve the intelligence by volunteering objects and events of their own choice and by defining with others the properties and contexts. Then, the teacher must aim to teach with/for the intelligence by linking it to the focus of the class, that is, to some aspects of language learning. This is done via worksheets and small group projects and discussion. And the final step is the transfer of intelligence: students reflect on the learning experiences of the previous three stages and relate these two issues and challenges in the out-of-class world (Richards & Rogers, 2001).

The MI perspective, gives a multidimensional view of the topic of intelligence and language learning, allowing instructors to apply it to classroom practice. By creating a specific intelligence profile for each learner, and planning class accordingly, the teacher is able to address each learner as well as the group of learners in a more effective manner. Specific to each class, learner difference and similarity awareness is important on two levels. Firstly, it allows the teacher to tackle a given class according to the collective profile that has been established from the very beginning. Secondly, it gives the learner/s a better understanding of their personal strengths and weaker points, providing them with the knowledge and self-confidence to use the stronger points in their favor or to strategically deal with weaker ones.

Multiple Intelligence and Autonomy

According to Ushioda (2011) language leaner autonomy does not view motivation as an individual variable, but rather the result of learner interaction and the social-interactive learning environment that they constitute. Alexander (2020: 131) speaks of six principles that he argues should be the conduct the classroom planning. Interestingly, these principles not only underpin learner autonomy but also correlate with specific intelligence types. These principles are described as follows:

- ***Collective***: The classroom is a site of joint learning and enquiry, and, whether in groups or as a class, students and teachers are willing and able to address learning tasks together. In order for learners to be able to engage in collective activities they need to have an adequate level of interpersonal intelligence.
- ***Supportive***: Students feel able to express ideas freely, without risk of embarrassment over contributions that are hesitant or tentative, or that might be judged 'wrong', and they help each other reach common understandings. This aspect requires not only a strong sense of self but also the insurance that the person is a part of a group and excepted by them, thus marrying the two intrapersonal and interpersonal forms on intelligence.
- ***Reciprocal***: Participants listen to each other, share ideas, ask questions and consider alternative viewpoints; and teachers ensure that they have ample opportunities to do so. Other than the clear importance of the interpersonal aspect of this criterium, the verbal/linguistic as well as the logical/mathematical intelligences are at play in a debate-like activity.
- ***Deliberative***: Participants discuss and seek to resolve different points of view, they present and evaluate arguments, and they work towards reasoned

positions and outcomes. Similar to the reciprocity criterion, the logical/mathematical and the verbal/linguistic intelligences are the most solicited types of intelligence when it comes to problem solving tasks with the interpersonal dimension of a group activity.

- ***Cumulative***: Participants build on their own and each other's contributions and chain them into coherent lines of thinking and understanding. The classification of thoughts not only calls out to the logical/mathematical but also requires a naturalistic mindset in an individual.
- ***Purposeful***: Classroom talk, though sometimes open-ended, is nevertheless structured with specific learning goals in view. It might seem farfetched to relate this aspect of an autonomous leaning to the existential intelligence, however I believe as subtle as this link may be, it is worth mentioning. The ability to project thoughts to the future and define a goal for oneself requires a sense of self-fulfillment.

Field Study

In order to determine whether favoring the individuality of each learner by emphasizing on their MI profile has a positive impact of the formation and development of autonomy in the process of learning a foreign language, and in this case FFL, we conducted a field study. This study allowed us to compare the results of the effectiveness of a routine course plan versus that of a course centered on learners' multiple intelligences. The results obtained were rather significant.

Two classes of 15 adult learners (an experimental and a control group) of the lower intermediate level (B1 of the CEFR) were subjected to two different pretests. These students had followed an average of 300 hours of French training. This level was chosen for the main reason that lower intermediate level learners of French are expected to be at the threshold of self-guided learning which we

consider to be at the same time one of the objectives and the result of learning through multiple intelligences. The first pretest was designed to evaluate the level of each group's MI combination, a checklist composed of 112 items, to identify the level of each one of the 8 multiple intelligences. The learners were expected to rate each item from less relating to their learning type to the most. Once the results were obtained, the learners were divided into two groups trying to form two homogenous groups, of course based on their availability. We calculated the average rate of each intelligence in each group so as to have a general idea of the intelligence forms on which we should be more focused. For the experimental group, the five intelligence types that rated over 50% were respectively verbal/linguistic musical/rhythmic, visual/spatial, naturalist and intrapersonal and the remaining three with scores under 50% were in order: bodily/kinesthetic, interpersonal and logical/mathematic. As for the control group, the intelligences from the strongest to weakest were classed as follows: verbal/linguistic, visual/spatial, interpersonal, naturalist, logical/mathematic and musical/rhythmic with scores above 50% and interpersonal and bodily/kinesthetic rating under.

As subjective as the notion of autonomy is, we as educators are interested in its concrete manifestation, such as the amount and quality of time a learner spends independently and willingly learning, practicing or using a foreign language, or the effectiveness of a learner's ability to self-assess, to choose the materials and methods he uses. Therefore, in our opinion the best judge of a leaner's conduct is the learner himself. On this basis, we picked the dynamic model proposed by Tassinari (2012). This dynamic model sums up the following components in terms of learners' competencies, skills, choices, and decision-making processes, and accounts for their mutual relationships: a cognitive and metacognitive component, an affective and a motivational component an action-oriented component and a social component. An essential characteristic of learner autonomy is the capacity of the learner to activate an interaction and a balance within these dimensions in different learning contexts and situations (Tassinari, 2012, p. 28). Using these

components, Holec's five major fields were put to question: planning, monitoring, assessing materials and resources, assessing textbook and strategies and finally acquisition assessment. The learners were expected to choose from three qualitative non-numeral items; however, each answer had a numeral equivalent for the count and comparison of the final results: "I can do this" (3), "I want to learn to do this" (1) and "This isn't important to me" (0). Given the language level of the learners, and the initial division made as explained previously, based on the learners' MI, the average autonomy profile combination of the two groups were surprisingly similar, even though the experimental group showed a slightly higher level. Both groups were best able to plan their learning process and less able to assess their acquisitions.

Now it was time for the two groups to undergo 40 hours of class focused on oral and especially oral comprehension skills. The EG followed a curriculum designed based on their MI. The syllabus was especially designed for that particular class, both by content and approach, and based on the learners' intelligences and interests. The framework was applied to the choice of documents and their contents and activity types. A variety of documents on multiple subjects such as music, science, politics, psychology, foreign languages, architecture, etc. each one corresponding to at least one of the aimed multiple intelligences. As for the choice of teaching material, we used a combination of authentic, semi authentic and elaborated documents: audio and video recordings from several textbooks as well as television programs like commercials, short documentaries, movie extracts and radio recordings.

The control group followed a routine curriculum, mainly based on a common textbook called *Compréhension Orale, Niveau 2* (Barfetty & Beaujouin, 2005). This textbook is generally used on the sidelines of any other manual and focuses, as its name indicates, on OC skills. Although this book contains subjects in various fields, the approach is most frequently the same: learners start by looking at one or several images, then they are asked to establish a meaningful relation between the images and the track they have heard. And thus, with every repetition of the document,

the learner is expected to answer to more open and detailed questions.

Once the intervention sessions were over, the two groups were once again questioned about their impression of their level of autonomy. The results were appealing: both groups showed a general increase of the learners' understanding of their own level of autonomy. Forty hours of course with focus on OC skills, appeared to have a positive impact on learner autonomy.

As for the EG, the improvement levels were quite remarkable. They showed an overall increase of 13.6% (approximately two times higher). Their highest level of improvement was in textbook/strategy assessment (25.2%). They also showed a high level of growth in acquisition assessment (21.3%). Their lowest level of accomplishment was in the ability of monitoring and planning their own learning. These numbers give us a clearer indication of the effectiveness of using MI based strategies in classroom planning compared to a well-thought routine program, when it comes to learner autonomy levels. In the following section we shall discuss the reasons of such significant results.

Results

Based on the results obtained in the aforementioned field study, we have come to believe that favoring each learner's individual intelligence profile and designing the syllabus accordingly, will positively influence the development of autonomy. A class based on multiple intelligences is an effective way of aiming learners' deeper levels of mental function providing the teacher with necessary tools which help better know each learner as well as the group of learners when planning the learning project. As seen in figure 1, both groups showed progress after the intervention phase, which in itself was, not surprising: a learner is expected to build on autonomy, gradually as he excels in other language skills. However, it was the difference in the level of growth, not only in total but also for each descriptor that was staggering. In our opinion this could be the result of two factors: an increase in motivation and the development of self-confidence. Imagine a class where the teacher uses a MI checklist, in the very first session as an icebreaker, allowing him to better know the learners, and the learners to find mutual interest and subject of conversation.

But it also gives the learners a clearer perspective of their own strengths and allows them to view the task of learning a language both at a personal and a social level. These are confident learners, able to see themselves as powerful individuals who play an effective role in a group. Later on, in the same class, the subjects that are discussed are ones with which the learners are familiar and feel confident about, in the outside world. A learner with a strong visual intelligence, for instance, is asked to transfer data onto a chart, or a learner with a high level of logical/mathematical level is asked to help solve an enigma. These learners are no longer passive language learners; they are active and productive group members on whom others can count. Such interaction can immensely influence learner motivation, which has a direct impact of the formation of autonomy.

Discussion and Conclusion

A learner of FFL in Iran is not very often considered to be autonomous, and helping him find a more self-guided path is not generally the main objective on teaching. From what we have gathered throughout our experiences as teachers and also the results obtained in the previously mentioned field study, it appears that the most sustainable route to a successful learning experience would be to ensure the quality of a self-directed learning by helping learners gravitate towards autonomy. This will accelerate the development of learner agency and will positively influence the quality of acquisition.

We based our study on the premise that motivation and self-confidence are core components of autonomy which could be accentuated by triggering learners' interests. With this in mind, addressing learner MI appealed to us as an adequate method of action which could impact his willingness by increasing motivation and self-confidence, empowering him with the necessary means to gradually take charge of his own learning. Our results have provided us with the sufficient support to be able to conclude that a program designed based on a confluent of multiple intelligences can better focus on a learner or a group of learners at a cognitive level. This in itself can alter the way the process of learning in regarded and it can give the individuals a sense of responsibility and investment in their

own learning, helping them to acquire various language skills more efficiently and enable the mastery of performances.

Carrying out this project has definitely provided us with some answers, but as it is generally the case in science, has given rise to more questions. It made us wonder whether these changes made to learning patterns are persistent, meaning will they endure through time and alter the structure of the person's brain. Would applying such methods from an earlier age at which the brain is still elastic have more profound consequences on how the brain developpes, will it determine the types of white matter and connections that are formed and are the glia and neurons influenced in any way. Both structural and functional studies on the brain before and after semi-longitudinal interventions similar to the one discussed in this paper could possibly provide us with interesting answers and help us determine if the cortical networks underlying intelligence and creativity are touched in any manner. A neurological study on alterations that such a chain of actions might make to the physical structure of the brain at a fundamental level would allow for better adapted classroom practices.

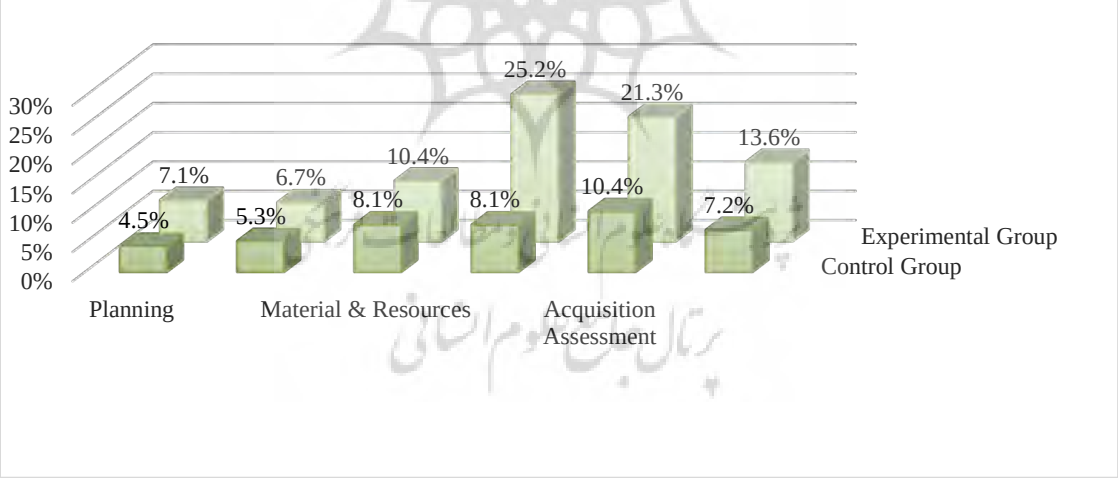

Fig. 1. Comparison of Autonomy level variation.

References

[1] Alexander, R., (2020). *A dialogic teaching companion.* London UK/New York, NY: Routledge.

[2] Barfetty, M., & Beaujouin, P., (2005). *Compréhension orale, Niveau 2.* Paris: CLE international.

[3] Gardner, H., (1983). *Frames of Mind: The Theory of Multiple Intelligences.* New York: Basic Books.

[4] Gardner, H., (1999). *Intelligence reframed. Multiple Intelligences for the 21st centuray.* New York: Basic Books.

[5] Germain, C., (1993). *Evolution de l'enseignement des langues : 5000 ans d'histoire.* Paris: CLE international.

[6] Henner-Stanehina, C., & Holec, H., (1977). Evaluation in Autonomous Learning Scheme. *Mélanges Pédagogiques.*

[7] Holec, H., (1979). *Autonomie et apprentissage des langues étrangères.* Conseil de l'Europe, Centre de Recherche et d'Applications Pédagogiques en Langues. Nancy: Hatier.

[8] Knibbeler, W., (1989). *The Explorative-Creative Way: Implementation of a Humanistic Language Teaching Model.* Language in Performance. Tübingen: Gunter Narr Verlag.

[9] Krahen, S., & Terrell. (1983). *The Natural Approach.* Oxford: Pregamon.

[10] Larsen-Freeman, D., (2004). *Techniques and Principles in Language Teaching .* New York: Oxford University Press.

[11] Lazear, D., (1991). *Seven ways of teaching: the artistry of teaching with multiple intelligences.* Palatine, IL: Skylight Publishing.

[12] Little, D., (2016). Learner autonomy and telecollaborative language learning. In S. Jager, M. Kurek, & B. O'Rourke (Ed.), *New directions in telecollaborative research and practice: Selected papers from the second conference on telecollaboration in higher education* (pp. 44-55). Reserch-publishing.net.

[13] Little, D., (2022). Language learner autonomy: Rethinking language teaching. *Language Teaching, 55*(1), 64-73.

[14] Procher, L., (1979). Les fonctions de l'évaluation dans un système européen d'unités capitalisables pour l'apprentissage des langues vivantes par les adultes. *Symposium deI Ludzigshafen-am-Rhein.* Strasbourg.

[15] Richards, J. C., & Rogers, T. S., (2001). *Approaches and Methods in Language Teaching.* Cambridge: Cambridge University Press.

[16] Schwartz, B., (1977). *Education Permanente.* Strasbourg: Conseil de l'Europe.

[17] Tassinari, M. G., (2012, Mars). *Evaluationg Lerner Autonomy: A dynamic Model with Descriptors.* Retrieved from Studies in Self-Access Learning Journal: http://sisaljournal.org/archives/march12/tassinari

[18] Ushioda, E., (2011). Why autonomy? Insignts from motivation theory and research. *Innovation in Language Learning and Teaching, 5*(2), 221-232