International Journal of Future Generation Communication and Networking
Vol. 13, No. 4, (2020), pp. 2617 - 2623

Autonomous Learning. What Is The Status In Latin American Countries?

Josefina Amanda Suyo-Vega[1], Monica Elisa Meneses-La-Riva[2], Víctor Hugo Fernández-Bedoya[3]
[1,2,3]*Universidad César Vallejo*

Abstract

Autonomous learning is the ability to self-regulate learning at the pace and style of the student and enhance this condition in a classroom or virtual environment is the challenge of students, teachers and education in any context or educational level, learning to learn. The objective was to systematize the evidence on autonomous learning from 2010 to 2020 in Latin America. For this purpose, 55,239 articles from the Scopus database were analyzed, which, when analyzed under the inclusion and exclusion criteria, through the "and" and "or" algorithms In order to answer these questions, 19 scientific articles were selected, in Spanish and English, in relation to the subject matter, type of document, geography, access, and publisher's restrictions, and which are related to the theme. The articles were selected through the following proposal: What is the scientific evidence on autonomous learning, identifying the theoretical references, educational levels, instruments and conclusions of the authors who published in the Scopus database? The results obtained show that Latin America represents less than 1% in scientific production in the Scopus database, the theoretical reference was Barry Zimmerman, the educational level where autonomous learning is investigated is university, and the most used instrument is the questionnaire and the scale. Concluding that a key piece to achieve the autonomous learning is the autonomy that is achieved with the guide of the teacher from the first years of life

Keywords: *Autonomous learning, teaching, student, education.*

I. INTRODUCTION

Teachers do an important job worldwide, whose work lies in teaching coupled with student learning, and this process leads to ongoing assessment. This process of evaluation impacts the students in their way of learning, that is to say, hours, situations, spaces, rhythms of how to learn and when to do it. Therefore it is necessary to regulate or self-regulate their learning. Emphasizing that when the teacher asks students for evidence of the tasks or activities assigned does not mean that they do not believe that they develop, because in that case only comply with a process. The autonomous learning in diverse investigations has been demonstrated that it requires the support of a guide, who not only requests evidence, but who helps in the process through the indications, of his successes and mistakes, this way he obtains a feedback, generating in the student body the process of self-regulating his learning, also it is necessary the expertise of the teaching staff so that it helps in the process. Including the socio-cultural contexts where they are developed, it can be urban or rural since in each case there is a difference (Villalta et al., 2018a).

In Peru, a research about the contribution in the autonomous learning was developed, a group of 34 girls with ages between 4 and 5 years old was investigated, using an observation guide that contained features of the autonomous learning and among its conclusions two aspects stand out the first one is the development of the autonomy and the second the teacher's role, both are fundamental to achieve the independence of the child (Bringas & Caro, 2018).

In Ecuador, research was done on models that detect problems of autonomous learning, for the students of the higher level. In the review of the literature, it mentions theorists such as Zimmerman &

Schunk, representatives of self-regulated learning, concluding that the student body does not self-regulate its learning in a relevant way (Fierro & Guevara, 2019).

In Spain, they researched the inverted classroom and among their conclusions they mention that research should be expanded to consider the benefits of the inverted classroom, including motivation and self-regulation (Hinojo et al., 2019), and the promotion of the use of the blog (Delgado et al., 2018), so the pedagogical aspect linked to connectivism reinforces the complexity of knowledge, developing cognitive skills and the ability to control them (Torres & Barnabé, 2020).

In Chile, research on self-regulation competencies was developed through a systematic review. Among its conclusions, the need to implement programs on self-regulation strategies to facilitate the transition from secondary to higher education is highlighted (Sáez et al., 2018). Likewise, in the same country, they researched self-regulation instruments for learning for secondary school students, through a review, concluding that the most widely used instrument was the Motivation and Strategies for Learning (MSLQ) (López-Angulo et al., 2020). It even highlights that the teacher's experience is involved in the conversation and mediation of learning (Villalta et al., 2018). Without leaving out procrastination as an element that decreases academic performance, but self-regulated learning brings academic benefits (Umerenkova & Flores, 2017).

It is necessary to establish the distinctive characteristics of the student's self-regulated learning (Zimmerman ,1990) to self-regulate their own learning. This theory is proposed because it starts from a socio-cognitive base, where motivation and self-regulation converge (Panadero & Tapia, 2013). The self-regulation is developed through three phases: the first one called planning, where the student identifies and analyzes the task, then it fractionates them to establish their own strategies to execute it, this stage is fundamental to achieve the self-regulation. The second stage is called execution phase, in this phase is developed the self-control, which contains the specificities of the task, such as images, time, interest and search for help, concentrate on an activity, demands an effort that requires the development of strategies. Likewise, self-observation is developed, which involves self-registration and metacognitive monitoring. The third stage involves self-reflection, where the student values his or her effort and analyzes the results obtained, to justify his or her successes and failures (Panadero & Tapia, 2013).

An important variant in all research is the instrument, since it collects valuable information. And in the autonomous learning two approaches are evident, quantitative and qualitative. One example is the one developed in Ecuador, where research was conducted on gammatization and self-regulated learning, whose approach was quantitative (Zambrano-Álava et al., 2020). This describes the instrument used to evaluate autonomous learning, being the Scale for the Evaluation of Self-regulated Learning from Texts (ARATEX-R), which consists of 23 items and the answers were made using the Likert scale (Núñez et al., 2015). There are also qualitative researches that develop case studies, or observation guides (Cohen et al., 2007).

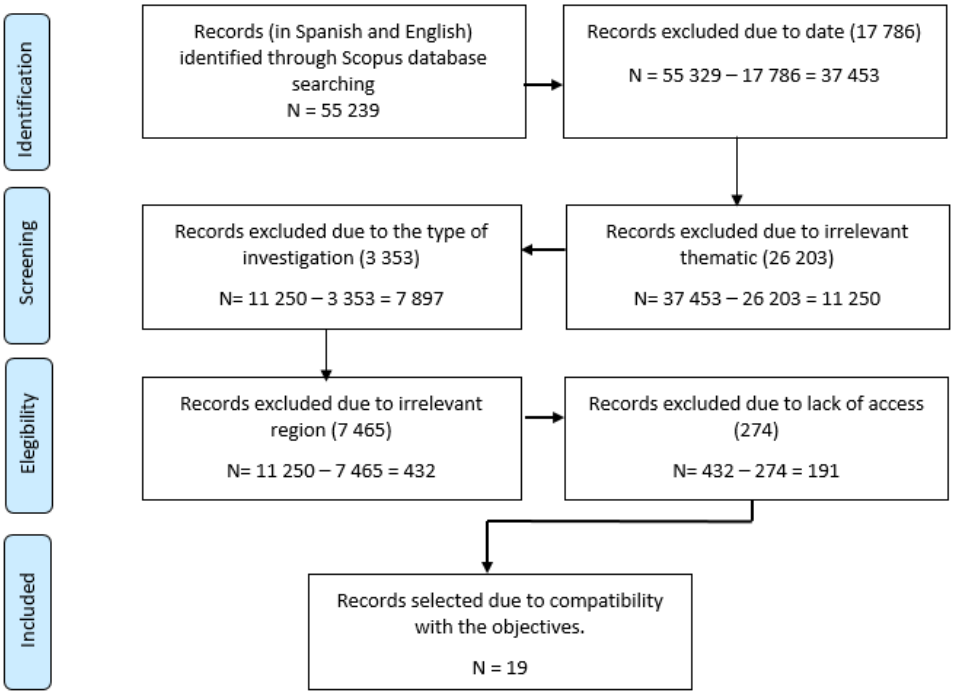
The research on autonomous learning is varied and associated with diverse variables, but all with a single focus, to achieve independence, autonomy, developing these capacities the student body achieves autonomous learning.

II. METHODOLOGY

The research developed a systematic review of the Scopus database from 2010 to 2020. The "or" and "and" algorithms were used for the search, both in Spanish and English. The search equations were "autonomous learning", "self-learning", "self-directed study", "self-regulated learning", "independent study", "autonomous learning", "self-directed study", "self-regulated learning", "independent study",

"autonomous learning" or "self-directed study", "autonomous learning" or "self-regulated learning", "autonomous learning" or "independent study", "autonomous learning" or "self-learning", "autonomous learning" or "self-directed study", "autonomous learning" or "self-regulated learning" "autonomous learning" or "independent study", making a total of 18 coded combinations from A1 to A18, as shown in table 1 (Apendix).

The search criteria were, by time period (2010-2020), subject (social sciences), type (article), region (Latin America), access (free access), restriction (the editor restricts articles), and objectives (reading the abstract and the inside of the article). Of the 55,239 articles found, 191 were pre-selected and coded in the Mendeley bibliography manager, and each of the articles was then analyzed. 172 were excluded for not meeting the proposed objectives, by region, and for duplication, leaving 19 articles, as shown in the Prisma statement.



III. RESULTS

The review identifies that scientific publications on autonomous learning come from countries such as: Mexico, Chile, Argentina, Colombia, Brazil and Ecuador, during the period 2010 to 2020. The year 2019 has the highest academic production, 31.7% in relation to Latin America. The total number of publications in Latin America that are in line with the proposed objectives is equivalent to at least 1% (0.78) in relation to publications at a global level.

The theoretical references on autonomous learning in Latin America are varied: Carter and Fleener (2002), Kamii (1994), Piaget and Inhelder (1993), Feuerstein, Carter Kami, Piaget, Feuerstein, Rand, Hoffman, Egozi and Shachar-Segev (1991); Poehner and Infante (2015); Tébar (2007); Tzuriel and Shamir (2007), Panadero and Alonso-Tapia, (2013, 2014), Pintrich (2000), Hernández, Oubrayrie-Roussel and Prêteur (2016); Lucieer, Jonker, Visscher, Rikers and Themmen, 2016) and Zimmerman and Pons (1986), Zimmerman (1989, 19990,2001), Volmer & Sarv, (2018); Escalante et al. (2017); Agostini et al. 2015) ; Fuentes et al, 2015, García et al. 2015; Carina, 2015; Pérez, 2014; Maldonado & Portillo,(2013), Kozulin, (2015) ; Orrú,(2003); Rand et al., (1979), Bruner (1978),Oxford (2003),

Benson, (1997; 2008) ; Dickinson, (1994); Moura Filho, (2009); Paiva, (2005), Ronderos and Mantilla (1997), Bandura, Zimmerman (1989) ; Wolters (1998). Ertmer and Newby (1996), Zimmerman and Martínez-Pons, (1990), Rosário, Núñez, González-Pienda, Almeida, Soares and Rubio, (2005); Zimmerman, (2002), Pintrich, (2000); Pintrich and Zusho, (2002); Schunk, (2005);Zimmerman, (2002), Boekaerts and Niemivirta, (2000) Boekaerts and Corno, (2005), Pintrich, (2000); Pintrich and Zusho, (2002); Schunk (2005), Cerda (2013), Cohen; Lawrence and Morrison (2007). The most cited theoretical references are Barry Zimmerman, Martínez-Pons, Paul R. Pintrich, Ernesto Panadero and Jesús Alonso-Tapia.

The educational levels where scientific articles on autonomous learning have been researched and published are at the university, secondary and primary levels. The percentages vary according to the educational levels, being statistically predominant the superior level (58%), then the primary level (26%) and finally the secondary level (16%).

The instruments that are used by the authors in their research depend on the objectives and approaches. They emphasize the physical and online questionnaires, the Scales in multiple varieties, of self-regulated learning, of general self-efficacy, of self-regulation of the learning-self-report, and self-regulation of the learning-self-report, short scale of self-directed learning. There are also publications of qualitative order where they use filmic registry of the class, journal of investigation and interviews.

The authors conclude that self-directed learning improves the academic performance of students. All the publications reveal that autonomous learning is developed hand in hand with the teacher, since the lack of knowledge or guidance of teachers hinders autonomy in the student body. The idea is not to receive evidence as part of an autonomous work, since only the autonomy is controlled there, but the idea is to develop the metacognition.

IV. CONCLUSION AND DISCUSSION

Through the systematic review it was identified that autonomous learning at the Latin American level is minimal, almost nothing compared to European or Asian scientific productions. Having less than 1% calls for reflection, what is Latin America doing, perhaps collecting European models for continuous improvement, ideally begin to disseminate the findings to know the potential or difficulties that may be found in various contexts. Likewise, only 6 countries out of the 46 that belong to Latin America stand out, that is to say, it is a priority that researchers begin to disseminate their research in high impact journals indexed in diverse databases, to benefit the Latin community.

The theoretical references of autonomous learning in its diverse meanings "autorregulado", "autodirigido", "autoapprendizaje", "estudio autodirigido", "aprendizaje autorregulado" or "estudio independiente", have as reference Barry Zimmerman, who describes the theories of self-regulated learning, its regulation and the phases in which each stage is developed. It is necessary to identify that most of the authors quote Zimmerman, but within other research, being necessary to resort to the original source, to avoid the quotations of quotes.

The application of the instruments depends on the focus, most of the research is quantitative using scales such as those of Núñez et al., (2015), but if they are qualitative they use observation guides or are developed as case studies, which are established in a geographic or institutional space, whose subjects involved have defined characteristics or depend on the role they play in the research (Cohen et al., 2007).

The researchers conclude that the teacher is a fundamental piece to promote autonomous learning, which should not be developed as something mechanical, when evidence of progress is requested, in any of its educational levels, since this would be configured, as a mere repetition of actions, without achieving the important process of feedback. That is why teachers are invited to analyze the fundamental task of teaching and achieving the independence of the student body, from the first years of life. Also, a call to reflection of researchers at Latin American level, to promote publications at all levels to know the successes and failures about autonomous learning.

REFERENCES

1. Amaya, L. & Santoyo, J. (2017). Evaluación del uso de la realidad aumentada en la educación musical. Cuadernos de Musica, Artes Visuales y Artes Escenicas, 12(1), 143–157. https://doi.org/10.11144/Javeriana.mavae12-1.urae
2. Antonio, M., Paucar, V., & Budnik, C. (2018). Contexto socioeconómico , práctica pedagógica y aprendizaje autónomo en el aula *. 49–68.
3. Biggio, M., García, S. & Vázquez, S. (2016). El rol de las creencias en los modelos de aprendizaje auto-regulado y su relación con el aprendizaje del dibujo. Estudios Pedagogicos, 42(1), 177–185. https://doi.org/10.4067/S0718-07052016000100011
4. Blos, D., & Nicolaides, C. (2011). Autonomous learning of children as language learners in a bilingual teaching context through a self-access center. Calidoscopio, 9(1), 15–27. https://doi.org/10.4013/cld.2011.91.02
5. Bringas, M., & Caro, M. (2018). El uso de la metodología de las áreas de interés según el currículo creativo y su contribución en el aprendizaje autónomo en niñas de 4 años de una Institución privada de Miraflores (Vol. 10, Issue 2).
6. Cerda, C., Saiz, J., Villegas, L., & León, M. (2018). Acceso, tiempo y propósito de uso de tecnologías digitales en estudiantes de pedagogía chilenos. Estudios Pedagógicos (Valdivia), 44(3), 7–22. https://doi.org/10.4067/s0718-07052018000300007
7. Cohen, L., Manion, L., & Morrison, K. (2007). Research Methods in Education.
8. Correa-Pérez, R., & Sanhueza-Jara, M. (2019). Characterization of autonomous work in a Chilean English pedagogy program: Teachers' and freshmen's perspectives. Revista Electronica Educare, 23(1), 1–23. https://doi.org/10.15359/ree.23-1.4
9. Daura, F. (2011). Las estrategias docentes al servicio del desarrollo del aprendizaje autorregulado. Estudios Pedagógicos (Valdivia), 37(2), 77–88. https://doi.org/10.4067/s0718-07052011000200004
10. Delgado, V., Hortigüela, D., Ausín, V., & Abella, V. (2018). El Blog como Instrumento de Mejora para la Autorregulación del Aprendizaje del Estudiante Universitario. Estudios Pedagógicos (Valdivia), 44(2), 171–184. https://doi.org/10.4067/s0718-07052018000200171
11. Fierro, W. & Guevara, C. (2019). Modelos predictivos para la detección de problemas en el aprendizaje autónomo en estudiantes de educación superior modalidad virtual. Predictive Models for the Detection of Problems in Autonomous Learning in Higher Education Students Virtual Modality., June, 1–6. http://search.ebscohost.com/login.aspx?direct=true&db=iih&AN=139263176&lang=es&site=ehost-live
12. Franco, F. (2019). Autonomous learning and webquest: Experiences from postgraduate students in a virtual learning environment. Texto Livre, 12(2), 135–151. https://doi.org/10.17851/1983-3652.12.2.135-151

13. Gaxiola, J. & González, S. (2019). Apoyo percibido, resiliencia, metas y aprendizaje autorregulado en bachilleres. Revista Electronica de Investigacion Educativa, 21(1), 1–10. https://doi.org/10.24320/REDIE.2019.21.E08.1983
14. Hinojo, F., Aznar, I., Romero, J. & Marín, J. (2019). Influencia del aula invertida en el rendimiento académico. Una revisión sistemática. Campus Virtuales, 8(1), 9–18. http://uajournals.com/ojs/index.php/campusvirtuales/article/view/384
15. Lizasoain, C., Ortiz de Zárate, F. & Becchi, C. (2018). Using an ICT tool for teaching English in a rural context. Educacao e Pesquisa, 44, 1–21. https://doi.org/10.1590/S1678-4634201844167454
16. López-Angulo, y Sáez-Delgado, F., Arias-Roa, N., & Díaz-Mujica, A. (2020). Revisión sistemática sobre instrumentos de autorregulación del aprendizaje en estudiantes de educación secundaria. Información Tecnológica, 31(4), 85–98. https://doi.org/10.4067/s0718-07642020000400085
17. Lucieer, S., van der Geest, J., Elói-Santos, S. de Faria, R. , Jonker, L., Visscher, C., Rikers, R. & Themmen, A. (2016). The development of self-regulated learning during the pre-clinical stage of medical school: A comparison between a lecture-based and a problem based curriculum. Advances in Health Sciences Education, 21(1), 93–104. https://doi.org/10.1007/s10459-015-9613-1
18. Núñez, J., Amieiro, N., Álvarez, D., García, T., & Dobarro, A. (2015). Escala de Evaluación de la Autorregulación del Aprendizaje a partir de Textos (ARATEX-R). European Journal of Education and Psychology, 8(1), 9–22. https://doi.org/10.1016/j.ejeps.2015.10.002
19. Panadero, E., & Tapia, J. (2013). ¿Cómo autorregulan nuestros alumnos? Revisión del modelo cíclico de Zimmerman sobre estrategias de aprendizaje. Anales de Psicología, 30(2), 450–462. https://www.redalyc.org/articulo.oa?id=16731188008
20. Pérez V., Valenzuela, M., Díaz M., González-Pienda, J.& Carlos, J. (2013). Learning difficulties in first year university students. Atenea, 508, 135–150. https://doi.org/10.4067/S0718-04622013000200010
21. Ramírez, M., Páez, D., Muñoz, D. & Martínez, F. (2019). El aprendizaje autónomo, favorecedor de la experiencia adaptativa en alumnos y docentes: la división con números decimales. Educacion Matematica, 31(1), 38–65. https://doi.org/10.24844/EM3101.02
22. Roque, Y., Zalagaz, M., Valdivia-Moral, P., Marín-Marín, J. & Alonso, S. (2020). Active methodologies in the training of future health professionals: Academic goals and autonomous learning strategies. Sustainability (Switzerland), 12(4). https://doi.org/10.3390/su12041485
23. Sáez, F., Díaz, A. Panadero, E., & Bruna, D. (2018). Revisión Sistemática sobre Competencias de Autorregulación del Aprendizaje en Estudiantes Universitarios y Programas Intracurriculares para su Promoción. Formación Universitaria, 11(6), 83–98. https://doi.org/10.4067/s0718-50062018000600083
24. Salazar, S. & Arévalo, M. (2019). Implementación del portafolio como herramienta didáctica en educación superior: revisión de literatura. Revista Complutense de Educacion, 30(4), 965–981. https://doi.org/10.5209/rced.59868
25. Torres, J. & Barnabé, T. (2020). Aspectos pedagógicos del conectivismo y su relación con redes sociales y ecologías del aprendizaje. Revista Brasileira de Educação, 1–22. https://www.scielo.br/scielo.php?pid=S1413-24782020000100221&script=sci_abstract&tlng=es
26. Umerenkova, A. & Flores, J. (2017). El papel de la procrastinación académica como factor de la deserción universitaria. Revista Complutense de Educacion, 28(1), 307–324. https://doi.org/10.5209/rev_RCED.2017.v28.n1.49682

27. Vázquez, S., & Daura, F. (2013). Auto-regulación del aprendizaje y rendimiento académico. Estudios Pedagogicos, 39(1), 305–324. https://doi.org/10.4067/S0718-07052013000100018
28. Ventura, A., Cattoni, M. & Borgobello, A. (2017). Aprendizaje autorregulado en el nivel universitario: Un estudio situado con estudiantes de psicopedagogía de diferentes ciclos académicos. Revista Electronica Educare, 21(2), 1–20. https://doi.org/10.15359/ree.21-2.15
29. Villalta, M., Assael, C., & Baeza, A. (2018a). NO! Conversación y mediación del aprendizaje en aulas de diversos contextos socioculturales. In Perfiles Educativos (Vol. 160). http://www.iisue.unam.mx/perfiles/descargas/pdf/2018-160-101-119
30. Zambrano-Álava, A., Lucas-Zambrano, A., Lucas-Zambrano, M. de L. Á., & Luque-Alcívar, K. (2020). Gamificación y aprendizaje autorregulado. III, 287–302.
31. Zambrano, C. (2016). Autoeficacia, prácticas de aprendizaje autorregulado y docencia para fomentar el aprendizaje autorregulado en un curso de ingeniería de software. Formacion Universitaria, 9(3), 51–60. https://doi.org/10.4067/S0718-50062016000300007
32. Self-Regulated Learning and Academic Achievement: An Overview. Educational Psychologist 25 (1): 3-17