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Impact of the university degree subject and teaching faculty on the language learning strategies of students

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Abstract

This paper questions whether university students use Language Learning Strategies (LLS) and if there is a possible relationship between LLS and the variables ‘university degree subject’ and ‘teaching faculty’. According to the results of the *Strategy Inventory for Language Learning*, the students of the disciplines analyzed presented a moderate use of LLS. Their preference for some strategies over others depends on the subject of their university degree. The results obtained from the variables also suggest that there may be a relationship between the teaching faculty and the student’s choice of LLS. This study obtains more empirical evidence of the conditions that allow students to make the most of education to develop competences in learning a foreign language as well as to emphasize that teachers must employ appropriate measures.

Keywords: estudiantes universitarios, estrategias de aprendizajes de lenguas, métodos de enseñanza, enseñanza y aprendizaje en la Educación Superior

[en] Impacto de la disciplina y el docente en las estrategias de aprendizajes de lenguas

Resumen

Analizamos la posible relación entre las estrategias de aprendizajes de lenguas (EALs) y variables de los universitarios: titulación académica y docente. Los resultados según el método de la taxonomía de Rebeca Oxford *Inventario de estrategias para el aprendizaje de idiomas*, los estudiantes tenían un uso medio de las EALs; prefieren unas estrategias frente a otras en función de la titulación; que conforme avanzan en los estudios utilizan más estrategias, y que existe una relación entre el docente y la elección de EALs. Los resultados entre las variables titulación académica y docente no apuntan a grandes diferencias significativas, por lo que se plantea la necesidad de estudiar en posteriores

estudios si en estas variables interfiere de forma relevante el campo de conocimiento o área de las asignaturas en cuestión. El fin de este estudio es obtener mayor evidencia empírica de las condiciones que permiten que los aprendientes aprovechen las ventajas de la instrucción para desarrollar su competencia en la una tercera lengua extranjera.

Palabras clave: estudiantes universitarios, estrategias de aprendizajes de lenguas, métodos de enseñanza, enseñanza y aprendizaje en la Educación Superior

Summary: 1. Introduction. 2. Conceptual framework. 2.1. Language Learning Strategies (LLS). 2.2. Variable: university degree subject. 2.3. Variable: Teacher. 3. Hypotheses. 4. Methodology. 4.1. Instruments. 4.2. Subjects. 5. Results. 5.1. H1 results. 5.2. H2 results. 6. Discussion. 7. Conclusion. References.

1. Introduction

Higher education's current educational paradigm is based on the approaches of the new European Higher Education Area (EAHA) that principally examine the teaching-learning process and the definition of key competences for life-long learning. The model used at the European University level is based, from the pedagogical point of view, on a method focused on student learning, which requires an active, constructive and autonomous learner able to manage the 'learning to learn' competence (Gargallo López & Suárez Rodríguez, 2014) in order to achieve significant benefit from their learning process and the development of their abilities and competences. In this new system, students control their study process and acquire skills that are useful inside and outside the classroom, increasing, if possible, the significance of learning strategies to achieve greater autonomy in the construction of knowledge itself and thus, the ability to significantly interpret the world around them (Fernández et al., 2013). The significance of student autonomy in Higher Education has involved modifying the credit value and substituting classroom hours for the new version of European credit, where students are required to have more hours of non-face-to-face personal work (Fernández et al., 2013).

These changes establish new professional roles for university teaching staff that involve shifting the emphasis on teaching to prioritize learning in order to achieve a positive effect on the teaching-learning pair. This new teaching approach implies managing students' different learning methods, namely, their learning strategies. To contribute to the improvement of teaching, the different variables entailed in the student learning process must be studied, but above all, those practices involving not only the teaching of disciplinary content but also addressing the individual aspects related to the learning process to be implemented (Syafryadin, 2020). This necessity is one of the justifications behind recent studies examining the learning strategies of university students and considering diverse relevant variables for studying the learning procedures that favourably impact students, as well as their association with and dependence on learning strategies (Aguilar Rivera, 2010).

This study searches for methodological approaches to obtain valid evidence for the autonomy of foreign language students in Higher Education. Thus, we analyse the impact of the academic variables 'university degree subject' and 'teaching faculty' in the LLS of university students. The main objectives of this study are to analyze (1) whether university students use LLS, (2) whether there are any differences in the use of LLS linked to the university degree subject and (3) whether the teacher in charge of the class influences the students' choice of the LLS.

First, this exploratory and descriptive study will focus on the perception of University of Las Palmas de Gran Canaria (ULPGC) students regarding LLS. Additionally, to examine whether the degree subject affects the choice of LLS, two groups of students in the same cohort with the same teacher in ULPGC Tourism and in Foreign Language degrees are compared. Finally, to examine the influence of the teacher on the choice of LLS, two groups of students in the same academic level and the same discipline who were taught by different teachers using different language teaching methods are compared.

This study's approach uses the hypotheses established after analyzing the literature that supports these variables although, in the case of the 'Tourism' and 'Foreign Languages' degrees presented in

this study, the subject has been poorly addressed, as well as their relationship with the LLS in learning German as a third foreign language. Therefore, this piece of research may deliver results suggesting a complementary approach to the studies carried out thus far, which would be useful in the decision-making process to improve the quality of education. Likewise, the study contributes and generates relevant data to diagnose and optimize the quality of the students' academic development to determine, if necessary, the requirements for support and optimization when students find themselves in adverse learning situations.

2. Conceptual framework

2.1. Language Learning Strategies (LLS)

The European Council (2001) defines strategy as any organized, determined and regulated course of action chosen by an individual to undertake any given task. Oxford (1990), the author providing the basis for the survey, considers that LLS are specific actions or techniques that students use, often intentionally, to improve their language skills, namely, any strategy that students use to learn a language (Sun & Wang, 2020). Language Learning Strategies acquire significance in the language learning process because they contribute effectively to the achievement of the student's tasks, thereby improving academic performance (Cáceres-Lorenzo, 2015, Griffiths, 2020, Jaekel, 2020; Pawlak, 2021).

For students to achieve independent learning, teaching strategies are essential, and thus, the teacher must be aware of the LLS currently employed by the students and those that are not. In other words, the teacher must specifically diagnose each group to improve the learning process by resetting the context of the university classroom (Teng & Zhang 2020). Therefore, the scientific literature highlights the necessity of analyzing and developing students' learning strategies, even though several research studies have provided uneven or even quite different results.

2.2. Variable: university degree subject

Studies conducted at different universities have tried to identify a connection between the learning strategies used by students and their academic discipline. Specifically, García, Hernández and Luján (1998) carried out a study of these characteristics at ULPGC itself, although it was performed without the taxonomy of Oxford (1990). The sample was analyzed by grouping the university degrees into four disciplinary blocks: Technical-Experimental; Medical and Health Sciences; Legal-Economic Sciences; and Human and Social Sciences. In general terms, it was concluded that only a few students used learning strategies, and there were significant differences in their use between subjects. Such differences, according to the authors, may arise from the characteristics or nature of the disciplines of study, from the evaluative demands of the teacher, or from the characteristics of the students. Namely, it seems that each degree program configures its own learning process, which is generally conditioned by the teacher.

Several studies reached the same conclusion, finding significant differences between learning strategies and different degree programs (Lam et al., 2014, Johnson, 2017). However, other research concluded that no correlation exists between the learning strategies and the student's discipline (Guadalupe, Valenzuela & González, 2010; Reinders & Benson, 2017).

This literature review may conclude that the investigative journey has been extensive, but it highlights agreements and disagreements between the findings. Although some studies do not indicate differences in the learning strategies depending on the degree program, most of the literature consulted found strategic differences around this variable. As Fernández et al. (2013) state, there is a relatively generalized consensus that the learning process of a university discipline has a link with learning strategies.

2.3. Variable: Teacher

One of the most influential variables in the educational process is the teaching method used by the teacher. On this subject, there is also controversy among researchers. Learning strategies used by university students have already developed in previous formation stages and are not modified by the cohort or discipline (Cáceres-Lorenzo, 2015). However, most studies agree that the teaching methods

and the procedures employed by teachers significantly impact student strategies (Gargallo López & Suárez Rodríguez, 2014, Teng, & Zhang, 2020).

3. Hypotheses

After reviewing the most relevant literature and considering the findings on the relationship between learning strategies, the following research hypotheses are proposed:

Hypothesis 1: Language Learning Strategies (LLS) are related to the academic degree subject, and thus, there will be noticeable differences between the LLS used by the students studying the Degree in Tourism and the Degree in Modern Languages;

Hypothesis 2: The teaching techniques used by teachers influence the acquisition and development of students' different LLS.

4. Methodology

4.1. Instruments

In terms of categorization, different taxonomies exist. This research will follow the conceptualization developed by Oxford (1990) because it is one of the most reliable LLS classifications accepted by theoreticians (Chuin & Kaur, 2015). Therefore, data was collected using the 7.0 version (ESL/EFL) of the taxonomy of Rebecca Oxford, Strategy Inventory for Language Learning (Oxford 1990); SPSS statistical software was used to organize and analyze data. Descriptive statistics were applied to research the LLS used by Spanish university students. SPSS (Statistical Package for the Social Sciences) statistical software was used to analyze the survey data through descriptive analysis, including the mean and the standard deviation of each item.

This inventory consists of 50 items, which are evaluated on a five-point Likert scale ranging from 1 to 5 (5 always, 4 frequently, 3 occasionally, 2 rarely, and 1 never or almost never). The 50 items are classified in two large groups: direct strategies and indirect strategies (Oxford, 1990). Direct strategies contribute directly to the learning process of a language and require a mental processing of the language, while indirect strategies provide indirect support to the learning process, such as the planning of the language tasks and the evaluation of the performance. These two major groups are sub-divided into six categories (Oxford, 1990):

(a) Direct strategies (items 1-29):

1) Memory strategies (items 1-9) used for learning, storing and retrieving information. This includes the use of flash cards or grouping words with similar functions, helping learners to remember new vocabulary. The use of memory strategies is most frequently applied at the beginning of the process of language learning.

2) Cognitive strategies (items 10-23) for manipulating the language material and re-organising information to develop knowledge structures such as highlighting, analyzing, or summarising messages. These are used to understand the meaning and expression of the target language. For instance, the use of skimming as a strategy helps learners locate the main idea in a text.

3) Compensation strategies (items 24-29) are used to help learners use the new language for comprehension and production, despite the shortcomings in their knowledge of the language, such as guessing from context and gestures or using synonyms.

(b) Indirect strategies (items 30-50):

4) Metacognitive strategies (items 30 to 38) are used to manage the learning process so that learners can more easily organise and make the most of their efforts. They include identifying preferences and needs, planning, monitoring, and evaluating their own learning.

5) Affective strategies (items 39 to 44) like deep breathing, using checklists or talking about feelings and rewarding oneself help learners to control their feelings, motivations, and attitudes to language learning,

6) Social strategies (items 45 to 50) refer to the student's communication with people who use the target language, like asking questions or co-operating with others.

4.2. Subjects

The target population of this research is ULPGC students in the 2017-2018 and 2018-2019 classes. To examine whether the university degree subject affects the choice of LLS, 61 students studying the degree in Tourism and 51 enrolled in a Modern Languages degree from the 2017-2018 class were evaluated. They study German as an L3, at the same level and with the same teacher. In both degrees, English is offered as an L2, and students can choose between German, French and Chinese as their L3. 90% of the students who choose German have no prior knowledge of the language. This subject provides 6 European credits (ECTS) and is distributed in 60 hours of face-to-face classes and 90 hours of autonomous learning. To examine whether the teacher influences the choice of LLS, the groups studying the degree in Tourism from the 2017-2018 and 2018-2019 classes were compared. The groups consisted of a total of 58 students at the same level of German but with different teachers, using different methods of teaching languages.

5. Results

5.1. H1 results

According to Oxford (1990), a mean below 2.4 would be a low value for LLS use, a mean between 2.5 to 3.4 would be a moderate value, and a mean between 3.5 to 5 would represent high levels of LLS use. Based on these indicators, Table 1 shows that, in general, the participants from both the degree in Tourism (mean=3.26 DS=0.44) and the degree in Modern Languages (mean=3.46 DS=0.15) employ LLS to a moderate extent, although the students studying the degree in Modern Languages are nearly at a high level of use, with a difference of 0.04. In general, there is a varied repertoire of LLS for both groups, although some LLS present a mean of 3.5 to 5, assuming a high level of use for the Modern Languages degree. Modern Languages students (3.59; 3.36; 3.60; 3.31; 3.62; 3.46) also show a greater use of all the LLSs than their colleagues in Tourism (3.10, 3.31, 3.26, 3.55, 3.06, 3.30, 3.26).

Table 1

Summary of the Descriptive Statistics of the Use of LLSs for the Degrees in Tourism and Modern Languages in the Class of 2017-2018

Language Learning Strategies	Tourism D. (2017-2018)			Modern Languages D. (2017-2018)		
	Mean	SD	Rank	Mean	SD	Rank
Memory Strategies	3.10	0.53	5	3.17	0.43	6
Cognitive Strategies	3.31	0.29	2	3.59	0.24	3
Compensation Strategies	3.26	0.37	4	3.36	0.32	4
Metacognitive Strategies	3.55	0.32	1	3.60	0.27	2
Affective Strategies	3.06	0.84	6	3.31	0.60	5
Social Strategies	3.30	0.26	3	3.62	0.25	1
Total Mean	3.26	0.44		3.46	0.15	

The Language Learning Strategies that are least used by Tourism students are the affective (mean=3.06, SD=0.84), memory (mean=3.10, SD=0.53) and compensatory strategies (mean=3.26, SD=0.37). The most used LLSs are metacognitive (mean=3.55, SD=0.32) and cognitive (mean=3.31, SD=0.29), followed by social (mean=3.30, SD=0.26). Students of Modern Languages use fewer memory (mean=3.17, SD=0.43), affective (mean=3.62, SD=0.25) and compensatory strategies (mean=3.36, SD=0.32). The most used are social (mean=3.62, SD=0.25), metacognitive (mean=3.60, SD=0.27) and cognitive strategies (mean=3.59, SD=0.24). The findings show that both groups use metacognitive, cognitive and social strategies as a priority and, less frequently, employ memory and affective strategies.

5.2. H2 results

Table 2

Summary of the Descriptive Statistics of the Use of LLS for the degree in Tourism in the 2017-2018 and 2018-2019 Classes

Language Learning Strategies	Tourism D. (2017-2018)			Tourism D. (2018-2019)		
	Mean	SD	Rank	Mean	SD	Rank
Memory Strategies	3.10	0.53	5	3.06	0.33	6
Cognitive Strategies	3.31	0.29	2	3.55	0.42	1
Compensation Strategies	3.26	0.37	4	3.30	0.28	3
Metacognitive Strategies	3.55	0.32	1	3.48	0.17	2
Affective Strategies	3.06	0.84	6	3.10	0.64	5
Social Strategies	3.30	0.26	3	3.27	0.27	4
Total Mean	3.26	0.44		3.29	0.35	

The group studying the Tourism degree in the class of 2016-2017, according to the evaluation conducted by Oxford (1990), present a moderate use of LLSs (3.29) ranging between the values 2.5 to 3.4, consistent with the previous academic year group. However, notably, both groups differ in the type of LLS utilized. Students in the 2016-2017 class use mainly cognitive strategies (mean=3.55, SD=0.42), followed by metacognitive (mean=3.48, SD=0.17) and compensatory (mean=3.30, SD=0.28); the LLSs that are the least practiced are social (mean=3.27, SD=0.27), affective (mean=3.10, SD=0.64) and memory (mean=3.06, SD=0.33).

6. Discussion

Previous studies have shown that the university degree subject impacts students' selection of LLS. Usually, those students specializing in Humanities tend to use more LLSs (Psaltou-Joycey 2008). This research also supports this assertion since, as noted, Modern Language students presented higher values in using every LLS.

Nevertheless, it seems that the use of cognitive, metacognitive and social strategies or metacognitive, social and affective strategies (Psaltou-Joycey, 2008) prevailed in students of Humanities. Specifically, in Language degrees, the prevailing LLSs are compensation (Korkmaz, 2013), social or cognitive and metacognitive (Tandoc & Tandoc-Juan, 2014). The results vary among the authors, but metacognitive, social and cognitive LLSs always appeared among the three strategies most used by Humanities students. This study confirms this theory because Modern Language students use social (position = 1), metacognitive (position = 2) and cognitive (position = 3) strategies with higher frequency; compensation ranked in fourth place.

In general, research on the use of LLSs reveals the high percentage of students practicing metacognitive strategies (Chuin & Kaur, 2015; Razak, Yassin & Maasum, 2020). Metacognitive strategies are those designed to understand and contemplate the learning process itself, its supervision and coordination to evaluate the results obtained and, specifically, to become aware of its linguistic dimension, to achieve greater control. These findings concur with those from Tourism students. Perhaps surprisingly, however, among the students of Modern Languages, the most used LLSs are not in fact metacognitive but rather social strategies; it may be that such metalinguistic reflection is characteristic of the university field of language studies, namely, the ability to express an explicit verbalization in the grammatical structure of a language after performing an introspection exercise (Cáceres-Lorenzo, 2015). Modern Language students are more capable in language and linguistics, in capturing the variety of the language, and in further studying the structures used in the text from a grammatical and narrative approach. For Tourism students, it was expected that social strategies would be the most used because the specific aims of language learning in this degree are based mainly on communicative competence but, above all, focusing on oral rather than on written communication

(Bascoy Lamelas & Benito Rey, 2014). Social strategies achieve greater skills for the best language competence for specific aims in the Tourism degree. These strategies become very significant in the learning process of the 'language of hospitality', due to the search for opportunities to use the language and increase contact with other learners or native speakers by practicing the learned skills and the use of the new language, as well as the development of positive attitudes for understanding the different social conventions between their own culture and that of the new language (Psaltou-Joycey, 2008).

Turning to the possible relationship between the teacher and the LLS chosen by the students, in the Tourism degree groups in the classes of 2017-2018 and 2018-2019, with the same level of German but taught by different teachers using different methods of teaching, different LLSs were used. Therefore, in principle, the hypothesis that teaching and evaluation techniques applied by the teachers influence the acquisition and development of different LLSs can be confirmed. However, the differences are barely noticeable between both groups, and the quantitative results reveal that the participants use parallel strategies. Thus, a new assumption is proposed to inquire whether the fact of teaching in the same area of knowledge, such as German Language, also influences the techniques applied by the teachers. This relationship allows us to conclude that the degree subject influences the learning strategies chosen by the students. Therefore, both variables are correlated, namely, not only the degree but also the teachers' field of knowledge.

7. Conclusion

After the review and considering the findings on the relationship between LLSs, we conclude that the results of this work agree and are consistent with those of other studies. Additionally, the findings confirm, in general, the proposed hypotheses:

Hypothesis 1: the relationship between the degree program and the LLS used by the students is confirmed. This study also found a greater use of LLSs by Humanities students.

Hypothesis 2: the teaching and evaluation techniques used by teachers influence the acquisition and development of the different LLSs.

The implementation of degree syllabuses that are awarded ECTS with expanded hours for autonomous learning rather than classroom training requires teachers to be aware of how our students learn, their prevailing LLS, and the diversity among students, such as gender, age, course of study and specialty. This information may be useful for language teachers because it will no doubt enhance students' greater adjustment and adaptation to the LLS, strengthening, modifying or training the pre-existing styles in a specific way (Ventura, 2013). The purpose of this study is to raise awareness among students but mostly among teachers of foreign languages about students' LLS so that everyone can adopt an appropriate approach when working in their respective field of knowledge.

The limitations of this paper do not allow it, but future research is needed to address the study of several L2/L3 subjects from different languages and with the same/different teachers to determine whether there is a significant relationship in the variables between teacher and LLS. This information could shed light on the assumption proposed here, namely, that the teacher's area of knowledge may influence this analysis, inasmuch as their knowledge area determines their teaching methodology and presentation of LLS. Further research would enable us to reach consensus in affirming that the evidence for this variable is conclusive.

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