
A Transitional Year Level to Higher Education: Challenges, Experiences and Self-regulatory* Strategies during the Final Year of the University Preparatory Level

*Un año de transición hacia la Educación Superior:
retos, experiencias y estrategias en Segundo de
Bachillerato*

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* Funding: Research funded by: personal grant to first author under Ramón y Cajal framework (RYC-2013-13469); Fundación BBVA call Investigadores y Creadores Culturales 2015 (project name Transición a la educación superior id. 122500); and by Spanish Ministry of Economy and Competitiveness (Ministerio de Economía y Competitividad) National I+D Call (Convocatoria Excelencia) project reference EDU2016-79714-P.

Abstract: Final Year level of the University Preparatory cycle (FYUP) –in Spanish 2º Bachillerato– is one of the most challenging academic courses. It is extremely demanding academically in itself and by the end of it students must also pass the university entry exam. Yet research has not investigated how students experience this year. We thus explored, using in-depth interviews with 75 students from two public high schools, their attitudes toward this academic year. Our results showed that (a) the participants struggled greatly during FYUP, experiencing high levels of academic stress (that affects their general well-being, mostly because of the high academic demands); (b) students were looking forward to their university experience but were concerned about failing or not finding their place; and (c) they reported a narrow range of learning, motivational, and emotional strategies. This study shows that students face significant learning and academic challenges during FYUP. A clear educational implication is that interventions should be implemented in earlier years to help the students be better prepared.

Keywords: Educational transition, Educational challenges, Self-regulated learning, Regulatory strategies, University entry exam, Transition to higher education.

Resumen: El último curso de Educación Secundaria es, probablemente, el año académico más exigente para el alumno. Es extremadamente demandante por sí mismo desde una perspectiva académica y, además, los alumnos necesitan superar la prueba de acceso a la universidad. La literatura no ha investigado el modo en que los estudiantes afrontan este año. Ese es el objetivo de este trabajo, que explora, a través de entrevistas en profundidad a 75 estudiantes de dos institutos públicos, su actitud hacia ese curso académico. Nuestros resultados muestran que (a) los alumnos tienen grandes dificultades durante ese año y experimentan altos niveles de estrés académico que afectan a su bienestar general, principalmente debido a la elevada exigencia académica, (b) los alumnos se muestran expectantes en relación a su experiencia universitaria, pero están preocupados por fracasar o no encontrar su lugar, y (c) los alumnos reportan un limitado uso de estrategias de aprendizaje (principalmente metacognitivas), de regulación motivacional y emocional. Este estudio muestra que los estudiantes están poco preparados para 2º de Bachillerato y se enfrentan a varios retos académicos y de aprendizaje sin el suficiente entrenamiento o estrategias para afrontarlos. Una clara implicación educativa es la necesidad de implementar intervenciones educativas durante los cursos previos, con el objetivo de preparar adecuadamente a los estudiantes.

Palabras clave: Transición educativa, Retos educativos, Estrategias de autorregulación, Prueba de acceso a la universidad, Transición a Educación Superior.

The last academic year before starting university can be challenging for students due to stressful learning context. Pressure is particularly high because of the high-stakes university entrance exam and the transition impending transition to a new educational level (Koivuniemi, Panadero, Malmberg and Järvelä, 2017; Lowe and Cook, 2003). Therefore, it is important to explore what happens exactly during that academic year to better understand how students are coping. Unfortunately, while there is a significant amount of research on how first-year university students experience entrance into higher education (e.g. Coertjens, Brahm, Trautwein and Lindblom-Ylänne, 2017; Dias and Sá, 2013; Niculescu, 2015), the literature is lacking on how they cope with the secondary last year levels (i.e. just before entering the university). An examination of this topic in Spain would thus yield insight into the experience of students across Europe as a whole as Spain shared

with other countries the European Higher Education Area and Bologna Process guidelines (Spanish Ministry of Education, 2005).

As it is argued in some models of transition from high school to higher education, this process begins in the last year(s) of secondary education, the so-called preparation phase (in which students start to anticipate the change and prepare for it; see Coertjens *et al.*, 2017). Therefore, it is crucial to examine both (a) how students anticipate this transition before it begins and, as well, (b) how they go through their final year of university preparation (FYUP), i.e. how they approach/explore their perceptions of FYUP; the challenges they face; and the strategies they use to cope with the experience. Delineating these two aspects from a psychological perspective are the aims of this paper.

CHALLENGES DURING THE FINAL YEAR OF UNIVERSITY PREPARATION

The structure of FYUP makes it a hard and demanding year, particularly due to four main challenges. First, FYUP is in itself a complex set of studies. Students are required to prepare a significant amount of content knowledge, covering a broad number of subjects (Benito and Alegre, 2012). Moreover, this knowledge must be acquired and ready to be recounted within the constraints of the university entry level exam (UELE). In the case of Spain, during the FYUP, students might study up to ten subjects (depending on the curricular course followed (Spanish Ministry of Education, n.d.). The academic calendar is shorter than usual to allow time for UELE, and the curriculum is plagued with content knowledge from the different courses. It is probably also the most demanding secondary-year level from a cognitive perspective, because students must retain large quantities of information (ready to be delivered in timed exams). Students at this year level, then, face quite important learning challenges at the (meta)cognitive, emotional, and motivational areas. To overcome these academic challenges, students must adapt their skills (Koivuniemi *et al.*, 2017), thereby developing capabilities they will need in the university (a learning environment that demands more autonomy and individual responsibility; Brinkworth, McCann, Matthews and Nordström, 2009).

Second, the UELE is usually the highest-stakes academic experience someone with a university degree will face (Laborda, 2012). This type of examination is used in many countries across Europe and the world (e.g. Appelrouth and Zabrucký, 2017; Muñoz-Repiso Izaguirre and Murillo Torrecilla, 1999). The scores obtained in the exam, usually in combination with those from the last secondary education year, are used to determine the major selected for the student.

There have been calls to change such systems (Pérez, 2017), but they remain largely in place (perhaps because they are institutionalised and, further, offer a guarantee of relative equal opportunity in accessing education, based on academic performance). The UELE, then, is an extremely high-stakes academic event, in which students are called upon to demonstrate knowledge, skills, and maturity, as develops over a number of years.

Third, during secondary education, students are asked to make decisions about their academic paths. One of the characteristics of the Spanish secondary education, largely mirrored across Europe, is that students must decide from amongst various academic paths (e.g. sciences, social sciences, arts, etc), so they can receive more appropriate training for entrance to the university. Choosing the 'right' path is then crucial. Students face this decision-making process with uncertainty and, in most cases, insufficient information (Galotti, 1999). Importantly, these choices are even more relevant during FYUP and after UELE, because some final decisions need to be made (e.g. choice of major) and the effects will be experienced in the short term. In Spain, the high schools are responsible for providing information about the different academic paths, normally through the counselling team and the school psychologists. It is a common practice to have students visit some of the main universities of their regions and to attend talks about different study courses and programmes. However, there is no set structure for these efforts: every school decides if they want to inform their students of their options and, as well, how they will do so. Nevertheless, even before having a clear idea of what major they will like to pursue, students have to take decisions in earlier year levels regarding the type of subject and academic trajectory they want to follow. Some studies have shown that many students live their higher education choices with insecurity, thinking they will not make the correct decisions (e.g. Holmegaard, Ulriksen and Madsen, 2014). Finally, this crucial decision about their paths turns more salient in FYUP when, on top of the past choice, they have to decide about their future in the short, medium, and long term.

Finally, research has found that secondary education students can experience negative emotions in relationship to at least academic and social-failure aspects (Jackson, 2010). These factors are probably even higher among FYUP students, as they are aware of and stressed about the changes they will experience once they move into the university. This is one of the greatest educational changes that will impact their lives; and they begin to prepare for it, in particular, during FYUP. For this reason, it is important to explore what are their plans and ideas about their future, what they fear, and how they feel: the way they visualise these issues will help them develop strategies to cope. To investigate this with FYUP population is

even more important, due to the lack of previous research and all the challenges these students face.

USING SELF-REGULATORY STRATEGIES

Considering the challenges mentioned above, it is important to explore how strategic are FYUP students. As we know, to be a successful student it is necessary to apply a range of strategies tailored for the contextually-relevant requirements. These strategies can be framed into what has been called self-regulated learning theory (for a review Panadero, 2017). Interventions based on this theory have been shown to be capable of increasing secondary- education students' academic achievement (Dignath, Buettner and Langfeldt, 2008). One possible way to study the different strategies is to group them based on the following domains: cognitive, metacognitive, management, emotional, and motivational.

The first three domains refer mostly to mental and contextual strategies (de Boer, Donker, Kostons and van der Werf, 2018). Cognitive refers to strategies that organise mental information so that it can be readily recalled in the future. Metacognitive strategies focus on how students think about thinking, while management strategies refer to the mental tools by which the student interacts with and navigates through the external learning environment (e.g. time management, study environment structuring, help-seeking) and, further, one's own attentional processes (e.g. effort regulation, perseverance). Importantly, we combined these three categories in a major theme under the label of Learning strategies. Therefore, for now on we will use that term to refer to strategies that are cognitive, metacognitive or managerial in nature. Motivational regulation strategies refer to actions aiming at maintaining or increasing one's interest in performing/sustaining an academic strategy (Schwinger and Stiensmeier-Pelster, 2012). Finally, emotional strategies refer to actions that regulate negative emotions and promote positive ones (Sang, Pan, Deng and Zhao, 2018).

SPANISH FINAL YEAR UNIVERSITY PREPARATORY COURSES

Secondary education in Spain is organised around the compulsory stage (Educación Secundaria Obligatoria, ESO) that extends across four years, usually from age 12 until 16, and the post-compulsory programme that has two branches: university preparatory courses (Bachillerato) and vocational education and training (Formación profesional). The university preparatory year levels extends across two year levels. The academic grade obtained for these two years is combined with that

of a university entrance exam to obtain a student ranking, which then is used to compete in a particular programme and/or university.

During the last year, students and teachers experience considerably high pressure to cover all contents of the various subjects because any topic could be asked in the exam. Additionally, students take a large number of tests throughout the year to become familiar with the exam types and learn to act strategically when taking them. On many occasions, the whole year level content can be asked; thus, students must have an excellent command of the subject. It is common for the teachers themselves to correct the university entrance exam. The test contents are published every year once the examination has taken place, as an exercise of transparency for the educational community. The exam results are also high stakes for the teachers: if a low number of students in their class pass the exam, that instructor could be placed on probation. Altogether, then, the two university preparatory year programmes –especially FYUP and the UELE– have momentous consequences, not only for the students, but also for teachers that are held accountable for their students' performance.

RESEARCH AIM AND QUESTIONS

Due to the reasons mentioned above, FYUP students are specially psychologically vulnerable. Considering this, our general aim is to explore students' experiences and self-regulatory strategies used during the FYUP. We focus on the following specific objectives:

1. Exploring the participants' expectations, experiences, and challenges during FYUP, derived within the first trimester of the academic year.
2. Exploring the participants' future academic plans and expectations about their transition to university.
3. Exploring the participants' use of self-regulatory strategies during FYUP.

Since these objectives are connected to the point of view of the students, and there are no standardised instruments for these purposes, we decided to use a structured-interview format with open-ended questions.

METHOD

Participants

In total, 75 FYUP students from two high schools participated in the study. Of those, 27 (36%) were males and 48 (64%) were females. Regarding their socioeconomic status (SES), 53 participants were classified in middle SES, 11 were medium-low and 11 were medium-upper. Such differences, and their impact on university adaptation, have been explored in previous research (e.g., Reay, 2018).

Instrument

To collect data, we created an structured interview. It had 37 questions divided into four sections. The first section (questions 1 to 15) was more general; it included questions regarding primarily the students' socioeconomic status and the kind of support (academic, economic, and motivational) they received from their family. The second section, with eight questions, dealt with the interviewees' expectations about the FYUP, the challenges of the course, and their prospects for success that year. The third section, questions 24 through 30 dealt with the students' strategies for learning as well as motivational and emotional regulation. Finally, the last section covered the students' concerns about the university life, their ideas about their future professional and academic life, and their use of free time. A closing question encouraged the student to share anything else not yet covered in the interview.

Procedure

Two high schools from the Madrid area participated in this study. The first author and a research assistant (i.e. the data collection team), presented the research to eight different classroom groups; voluntary participation was requested and questions from the students were answered. Then informed consents were given to the students. Parental/guardian approval was obtained for the underage participants (below 18 years old).

The data collection team brought the participants individually to a quiet room to interview them. Before reaching a final version of the interview script and prior to the research assistant training, the team conducted five pilot interviews (not included in the study results) after which two questions were rephased. After that, 75 participants were interviewed following the 37 predefined questions. The interviews lasted from 25 to 50 minutes. The interview sections were presented in the same order for all students (though, on some occasions, the order of questions within sections was changed for a better development of the derived content).

Coding categories and data analysis

After data collection, we started the analysis using quantitative and qualitative procedures. First, we made transcriptions for all the interviews. Second, considering every question asked, we decided whether it was more appropriate to analyse the participants' answers by using closed or open categories (cfr. Bazeley, 2013). Then, we started coding the closed categories to derive a database with quantitative results. These closed categories were elaborated according to two criteria. On the one hand, there were categories without a theoretical background, i.e. just related to the specific question of the interview. For instance, when we asked the participants if their parents have helped them with their academic tasks, we created three codes for their answers: no help, occasional, and frequent. On the other hand, our main closed categories were linked to specific theoretical models. The learning strategies were coded according to the proposal of Zimmerman and Martínez-Pons (1986) with only a small change (see Appendix 1). The motivational strategies were chosen from Zimmerman's (2000) self-regulated learning model, adding the categories of help-seeking (Karabenick and Dembo, 2011) and reducing negative emotions and anxiety to maintain motivation (Estévez *et al.*, 2016). Finally, the strategies of emotional regulation followed the categories elaborated by Boekaerts (2011). The closed categories for all the type of strategies are presented in detail in Appendix 1.

To code the interviews with the closed categories, we followed the next process. As a first step, three members of the research team coded independently a certain number of interviews in several rounds to reach an adequate interjudge agreement. After every round, if a category reached a Krippendorff (2004, p. 241) alpha agreement equal to or over 0.7 across the three judges, it was accepted. When agreement was lower than 0.7, we discussed the results and the cases to detect errors and limitations in the categories and/or coding procedure. Then, a different set of interviews was coded in all the categories with an agreement under 0.7; in a third round, we repeated the process. After the third round, once we had analysed almost one-third (29.33%) of the interviews, the closed categories in which we could not reach a good inter-judge agreement were rejected and included in the qualitative analysis instead. Finally, two researchers individually coded the rest of the interviews; from this, we created a unique SPSS database for the 75 participants and calculated some quantitative results. In Table 1, we summarise the number of interviews and categories analysed in the three rounds by the three reviewers.

Table 1. Interviews and categories analysed

	NUMBER OF INTERVIEWS CATEGORIZED	NUMBER OF CATEGORIES ANALYSED	PERCENTAGE OF CATEGORIES ANALYSED WITH KRIPPENDORF ALPHA AGREEMENT EQUAL TO OR OVER 0.7	PERCENTAGE OF CATEGORIES ANALYSED WITH KRIPPENDORF ALPHA AGREEMENT UNDER 0.7
First round	10	59	11,9%	88,1%
Second round	6	52	71,2%	28,8%
Third round	6	15	73,3%	26,6%

After this procedure, we started to analyse students' answers; an open-coding process (cf. Bazeley, 2013) was followed. The interviews were divided between two researchers (who created codes according to the participants' points of view). One of the researchers created several categories to establish relationships and organise the data and then triangulated them (Flick, 2007) with the rest of the team.

RESULTS

Expectations, experiences and challenges during FYUP

When we asked the students what they expected from the FYUP, 23 reported seeking a good education for their future. At the same time, most answers showed that participants experienced pressure because there was so much at stake. A large number (45) expected it to be a hard and stressful academic year:

'I know it will be hard and I see things in a negative light. I get too nervous at the exams'. *Lara¹, female, high school 1.*

'I thought it was going to be similar to or easier than the first year level of the university preparatory programme. Since I have started this academic year, things have changed a lot. I notice it especially in my classmates, they demand a lot to themselves, they get so stressed'. *Carlos, male, high school 2.*

Twenty-seven participants emphasised the relevance of getting the grades they needed to enter their preferred programme and how this affected their anxiety levels. In addition, many students pointed out the necessity of daily study and establishing strong routines to achieve those necessary grades.

1 To preserve anonymity, the actual names have been changed.

The students gave very similar responses when asked about the FYUP aspects that were more surprising to them. Again, the students often reported high anxiety levels. More specifically, 53 students referred to the difficulty withstanding the academic year due to the number of topics they had to study and the speed with which they needed to master them.

‘It has really been a surprise, because people were telling us to be prepared, but I didn’t think it was going to be that much [work]. There are too many topics and content’. *Clara, female, high school 1.*

‘The trimesters are so short... the other day I noticed it and we are overwhelmed’. *Blanca, female, high school 1.*

Three participants reported being surprised by the courses they had to study in their academic itineraries, two stated they wanted better teachers and one student wanted more autonomous homework. Nevertheless, eight students highlighted positive aspects of the programme. They reported it was not so difficult if they studied on a daily basis and that there were some easy courses altogether.

Regarding the academic challenges of the FYUP, the most frequently reported challenge (29 students) was difficulty passing all the courses. The second most common challenge (26 students) was organising one’s study activities adequately, considering the amount of work that needed to be accomplished (i.e. time management):

‘To prepare seven exams in a very short time. It’s a challenge that feels “uphill” to me. It has been a strong blow to me’. *Marta, female, high school 1.*

The third most common challenge (22 students) involved motivation; interviewees noted how hard it was to study every day; five participants reported difficulties staying focused in class. Fourthly, 17 participants reported emotional challenges (i.e. feeling overwhelmed by the amount of work they had to do within a brief amount of time). Finally, 10 students reported challenges linked to their level of performance: eight felt that obtaining high grades was difficult; two students referred to the difficulty of receiving the minimum grade to pass the course.

FUTURE ACADEMIC PLANS AND EXPECTATIONS ABOUT THE TRANSITION TO UNIVERSITY

When asked about their future academic plans, most participants (82.7%) intended to obtain a university degree; 6.7% anticipated higher vocational education and

training; 5.3% were considering a different professional career (mainly joining state security forces); and 5.3% were not sure about the path they were going to take. Considering the 67 students who wanted to attend the university, only two felt they were not going to accomplish this goal; 16 interviewees were not sure about their prospects.

When asked why they wanted to complete a university degree, students provided reasons that could be classified into three categories. First, the most common response (38 participants) highlighted the fact that attending the university was the best path to a better future (in terms of wages, working options, and conditions). Second, 16 participants emphasised that it was the only way to work in the profession they wanted to pursue. Finally, 16 students reported that university was a desirable experience and, as well as an opportunity. Below are excerpts of each group of reasons:

‘Although there aren’t many jobs, there are more chances to find one if you attend the university’. *Gracia, female, high school 1.*

‘I want to work and, for the position I dream of, a university degree is required’. *María, female, high school 1.*

‘If I have the opportunity, and as I am the only one in my family to have the chance, I want to grab it’. *Lorena, female, high school 2.*

When asked if they were concerned about any particular topic of their future at the university studies, it was remarkable that 16 participants were worried about experiencing failure or frustration as this could lead them to getting stuck and disoriented in life). This example illustrates such concern:

‘I am afraid of failing, that I do not reach the grades that are needed. That I do not evolve, that I get stuck’. *Rebeca, female, high school 1.*

Others participants (13) were worried about having academic difficulties, such as not being able to understand the teachers or pass the courses. Seven students were doubtful whether they were going to take the correct path and enjoy their choice, while six felt nervous about the dimension of the impact their choice of university would have on their lives. Social issues were another reported group of concerns, with aspects such as social integration with one’s classmates (five participants) or adapting to new impersonal relationships with university teachers (three participants), which interviewees expected to be quite different from those they had experienced with their high school teachers. Three participants reported feeling no worries or anxiety about going to the university.

Although the participants' socioeconomic status was mainly middle class, 24 students expressed concerns that their parents could not afford their university tuition. Among these 24 participants, six considered it appropriate for their parents to make that economic effort; 16 reported that it would be a burden for their parents (so they were planning to work to pay their tuition); and two were even reconsidering their career choices so their parents did not have to pay their tuition.

USE OF SELF-REGULATORY STRATEGIES DURING FYUP

In this section, we explore the participants' self-regulatory actions, as organised into three themes: learning, motivational, and emotional.

Learning strategies

The strategies included in this category are cognitive, metacognitive or managerial in nature. Our participants reported using a limited variety and number of learning strategies. The most common combination was the use of two strategies (36 participants, 48%); 10 participants (13.3%) used three strategies, and one participant reported using up to five strategies. Twenty-eight participants (37.3%) reported using just one strategy.

Second, regarding the most frequent use of learning strategies (Table 2), a quite unequal distribution was found. The most used strategy was Organising and transforming (53 participants; 70.7% of the sample); it was applied mostly to creating summaries or conceptual maps of the instructional content. It can be considered a basic strategy aiming to just processing of the information. Some excerpts from the interviews:

'Memorise and summarise. Schemes sometimes too. I have tried others (see documentaries, etc.) it has served me but not as much as the other'. *Isabel, female, high school 1.*

'I feel very sad about failing sometimes'. *Alfredo, male, high school 2.*

The second most used strategy, far from the previous one, was Rehearsing and memorising (as used by 33 participants; 44%):

'I underline what seems more important to me, I copy it and when I do it, I can remember it. I'm studying it by copying. If I can't remember it well, I copy it again'. *Andrea, female, high school 1.*

Ten students (13.3%) reported using the 'Reviewing records' strategy:

'It's hard but if you try hard and all that... I think at least I can get what I want'.
Juan, male, high school 2.

The strategies Seeking information (6.7%), Goal-setting and planning (4%), and Seeking help from teachers (4%) were reported only marginally. Finally, only one participant reported seeking help from peers as a learning strategy.

No participants reported the strategies of Self-evaluation, Keeping records and monitoring, Environmental structuring, or Self-consequences (cognitive). Additionally, no one reported Seeking help from adults as a strategy. However, considering that 48 participants declared receiving help from their parents in their academic tasks, this result is incongruent:

'Yes, when I need help, they [my parents] help me'. *Hugo, male, high school 1.*
'My father, sometimes in mathematics. My mother with Spanish. I also try to do my part in the others. But yes, they have helped me a lot'. *Sergio, male, high school 1.*

This discrepancy may be due to the fact that the students did not consider this adult assistance as a learning strategy; this would explain why they failed to mention it.

Finally, 27 students (36%) described using other learning strategies besides those mentioned. Among these, being active and attentive during lectures, and studying every day were most reported.

The participants also were asked if they thought their learning strategies would change during the rest of the FYUP academic year. Nineteen students (25.3%) declared that they were going to use the same strategies, while 55 students (73.3%) stated they would use different strategies. Among these students, the vast majority (44 students, 54.7%) reported that they would need to use other strategies in addition to those mentioned. Once again, participants emphasised the need to study every day:

'Study every day and pay attention in class. In this academic year you have to be more focused, go over classroom activities every day, and take a look at the learning materials'. *Alba, female, high school 1.*

Regarding the remaining learning strategies, seven students declared that, in the last year, they needed Goal-setting and planning. Four students declared needing Organising and transforming and two students believed that Rehearsing and memorising were necessary. Finally, one student thought he needed Seeking help from teachers:

‘Highlighting, daily study routine, review every day, and the day before the exam, memorise more. Yes, there are differences, you have to be more constant’. *Irene, female, high school 1.*

‘You need many hours of study and requires organisation. To know how to distribute the effort for the different subjects. You cannot leave any subject aside, otherwise you will fail at the end’. *Isabel, female, high school 1.*

Table 2. Learning strategies reported by the participants

STRATEGY	N	%
Organizing and transforming	53	70,7%
Rehearsing and memorizing	33	44%
Other	27	36%
Reviewing records	10	13,3%
Seeking information	5	6,7%
Goal-setting and planning	3	4%
Seeking help from teachers	3	4%
Seeking help from peers	1	1,3%
Self-evaluation	0	0%
Keeping records and monitoring	0	0%
Environmental structuring	0	0%
Self-consequences (cognitive)	0	0%
Seeking help from adults	0	0%

Motivational strategies

Our data suggest that participants were not aware of what the term ‘motivational strategy’ implied, because many did not identify any strategy when we asked about it. As can be seen in Table 3, the main strategies (e.g. Thinking about one’s own capacities, Thinking about their outcome expectations) were reported by a small number of students, while almost half reported that they did not use strategies

to regulate their motivation. In addition, we coded the answers of 10 students as strategies related to the regulation of anxiety and negative emotions (e.g. Searching for distractors from the stress). This excerpt illustrates the latter idea:

‘When I am very stressed I take a walk on the street, to breathe fresh air’.
Julia, female, high school 1.

In Table 3, we summarise the motivational strategies reported by the participants.

Table 3. Motivational strategies reported by the participants

STRATEGY	N	%
No motivational regulatory strategies	35	46,67%
Reducing anxiety and negative emotions to maintain motivation	10	13,33%
Self-consequences (motivational)	8	10,67%
Help seeking	6	8%
Other strategy	6	8%
Thinking about their personal goals	5	6,67%
Thinking about their own capacities (self-efficacy expectations)	4	5,33%
Thinking about their outcome expectations	1	1,33%
Thinking about the task interest and/or value	0	0%

Emotional Strategies

In Table 4, we present the emotional strategies reported by the participants.

Table 4. Emotional strategies reported by the participants

STRATEGY	N	%
No emotional regulatory strategies	35	46,67%
Denial and distraction	18	24%
Other strategy	6	8%
Expressing emotions	5	6,67%
Acquiring and providing social support	3	4%

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Table 4. Emotional strategies reported by the participants

STRATEGY	N	%
Suppressing emotions	3	4%
Re-appraising the situation	2	2,67%

Almost half of the participants reported they did not use strategies to regulate their emotions. In addition, we can see that the most used strategy was denial and distraction (24%). These are some illustrative excerpts:

‘I don’t think about it. I try not to think about my emotions if they are negative’. *Juan, male, high school 1.*

‘Eating, sleeping or going out into the fresh air’. *Julia, female, high school 1.*

Six students (8%) reported using strategies included in the category Other. Within this group, the most frequent strategies were the use of medicines or pills, whether natural or chemical (anxiolytics):

‘I take herbal pills for my nerves. Sometimes it works while at others it doesn’t’. *Cristina, female, high school 1.*

‘When I’m sad, I have to breathe three or four times. If it doesn’t work, my psychiatrist gives me some pills to regulate my anxiety’. *Sara, female, high school 1.*

The strategies Suppressing (hiding) emotions, Social support, and Re-reappraising the situation were used by less than five students. These are examples for each of these strategies, respectively:

‘I don’t think about them if they are negative. I just try to focus’. *Gustavo, male, high school 1.*

‘If I’m not feeling well, I look for somebody, friends’. *Juan, male, high school 2.*

‘I think positively. I think that, in fact, everything in my life is going well. In addition, I see people having some trouble that I don’t have’. *Miguel, male, high school 2.*

DISCUSSION

As argued above, the FYUP is a very demanding academic year: it involves extensive academic challenges (such as acquiring a high amount of knowledge in a short and of time); as well, the students must perform at their best for the UELE at the end of the academic year. All of this occurs while the students are taking major decisions about their careers. For these reasons, this study aim was to explore how students experience and perceive this challenging academic year. The investigation had three specific objectives: (a) exploring the participants' expectations, their experiences, and challenges during FYUP, as measured within the first trimester of the academic year; (b) exploring the participants' future academic plans and expectations about his/her transition to university; and (3) exploring the participants' use of self-regulatory strategies during FYUP.

Regarding our first goal, the participants' perceptions about FYUP showed the degree of pressure they experienced which was expressed by a very high percentage of participants at various moments of their interview. The participants reported a range of challenges associated with FYUP that were closely related to feeling overwhelmed. Among these, it was highly reported a heavy workload that made it hard to organise adequately; moreover, almost half of participants considered that some subjects were difficult to pass. In addition, they reported that they did not always feel motivated to study on a daily basis, and some of them highlighted the challenge of achieving a satisfactory level of performance. Academic pressure has been found in previous secondary education research (e.g. Jackson, 2010) but the levels found in this study clearly indicate that FYUP is probably the most stressful academic year (due to all the constraints and high-stakes situations). Unfortunately, there is very limited previous research on this particular FYUP year level, and none that we know of in the Spanish context (as only UELE and not FYUP has been explored; e.g. Muñoz-Repiso Izaguirre and Murillo Torrecilla, 1999). Therefore, this study might be one of the first of its kind to be published.

Regarding our second research goal, in relation to their plans, expectations, and ideas about the future, it is relevant that the majority of participants were sure they wanted to study at the university level. The reasons given to pursue this academic path were mainly three: (a) they expected to have a better future; (b) it was a way to pursue the profession they liked; or (3) a desire to experience the university. Although university was attractive for them, most participants reported insecurity about how they would adapt to this milieu. The most usual worries were: failing or getting 'stuck', experiencing academic challenges or difficulties integrating in the new social context; and causing their parents to face a major economic burden.

These particular concerns are supported by a great deal of previous research from other countries (e.g. Nicolescu, 2015). Actually, the transition to higher education has been a prolific area of research since the seminal work of Vince Tinto (1987). However, our work is innovative in looking at these processes with a prospective approach, asking students how they see themselves going through it.

Our third research goal explored the various self-regulatory strategies deployed during FYUP using the work by different self-regulated learning scholars (e.g. Boekaerts, 2011; Zimmerman, 2000; Zimmerman and Pons, 1986). The first theme Learning strategies, included cognitive and managerial actions but has the strongest emphasis on metacognitive strategies. The most reported strategies were Organizing and transforming mostly by creating summaries and conceptual maps, and memorising strategies. This is, both, a limited range of metacognitive strategies and show a possible surface information processing as these strategies are mostly to just process information. Considering that the participants had finished successfully the compulsory secondary education, it can be hypothesize that the academic tasks in that educational level could have had low cognitive complexity (mostly based in memorisation and understanding) (Koivuniemi *et al.*, 2017).

When we explore the other two self-regulatory strategy themes, the results are extremely similar. Regarding motivational and emotional strategies, participants reported low frequencies and ranges of strategies. In both, the most frequent category was No regulatory strategy. This shows that students lack of skills to face the motivational and emotional challenges they are facing. After that category, most common reported strategies were Reducing anxiety and negative emotions to maintain motivation, Self-consequences (motivational), Denial and distraction. These results leave us with a crucial future research question. Is FYUP a year level that does not require many strategies to pass or are students not fully aware of the full range of strategies they typically use? If we seek answers in previous research (e.g. Koivuniemi *et al.*, 2017), it has been found that even higher education students report a limited range of metacognitive, motivational, and emotional strategies. Nevertheless, it is still crucial that students develop these types of strategies, as they have been shown to be essential for academic achievement (Schwinger and Stiensmeier-Pelster, 2012) and for students' well-being (Sang *et al.*, 2018).

Educational, policy and practice implications

Overall, if we consider the combination of reported challenges for FYUP and the limited repertoire of self-regulatory strategies, it is clear that students do not

have enough personal resources to cope with FYUP without suffering a decrease in their emotional and psychological wellbeing. Actually, our first research goal shows that students struggle significantly. Thereupon, the strongest and clearest education implication is that we need to prepare our students for this year level. As it is extremely complex to do this during such a stressful year, we need to better prepare them academically and personally before FYUP, probably with a focus in the previous two years. This seems ideal, given the students' maturity and the proximity to FYUP.

The following areas of educational intervention should be considered. First, we should provide the students with a more complete knowledge of the self-regulatory strategies. This implies teaching declarative, procedural and conditional knowledge about the strategies (Weinstein, Acee and Jung, 2011); in other words, they need to learn what regulatory and learning strategies they can use, how and when they should use them. Second, we should provide them with opportunities for emotional education, and help them develop emotional regulation strategies, specially to cope with stressful situations related to the main educational contexts: being in class, studying out of the class and performing tests and exams (Pekrun, Goetz, Titz and Perry, 2002). This could be done through an "emotionally sound instruction" (see Nicolescu, 2015) and the inclusion of emotional education goals in tutorial plans, with specific workshops, for instance, to deal with exams-related anxiety. Finally, we should pay attention to some management skills that are particularly relevant for FYUP. Mainly, we should provide them with strategies for goal setting and study planning. That way, they would be find it easy to organize their study.

These recommendations have implications at both policy and practice levels which should go hand-in-hand. First, our educational systems need to provide policy coverage for the above-mentioned educational recommendations. It would be wise to develop intervention programmes to ensure the academic and overall well-being of FYUP students. This would also imply implementing professional career development courses for secondary education teachers, so they are better prepared to provide support and guidance. While developing our teachers' competence is key (Looney, 2011), it is even more so as applied to this particular topic (as they might have insufficient awareness of the problem, to begin with). Secondly, at a policy level, it would be interesting to start exploring and unifying access to higher education across various European countries. While the European Higher Education Area and Bologna Process have attained very important unifying results, university access has not been sufficiently regulated to benefit students in FYUP across Europe.

Limitations and future research

This study has two important limitations. First, all data are self-reported by the students. While the nature of our data can be considered a limitation, it is important also to keep in mind that our aim was to understand students' perceptions. Data from the students themselves was therefore needed. Nevertheless, this methodological approach has an important limitation when exploring the strategies used by the participants. Second, the sample came from only two high schools; it thus cannot be considered representative at a national or even regional level. However, the number of participants for a study of this nature (i.e. qualitative) was high which strengthens the reliability of the results.

Future research needs to: (a) find the best approaches for these support/prevention programmes; (b) analyse in detail the whole educational context for the Spanish FYUP (e.g. teachers' perceptions and experiences), applying it to the European level; and (c) analyse FYUP students' self-regulatory skills, using other instruments to complement our self-reported data.

CONCLUSION

As a final remark, these findings show that FYUP constitutes a high-stakes academic course. This is not only because of its academic demands (i.e. achieving high grades and passing UELE), but also because the whole academic experience seem to take a remarkable toll on the well-being of our students. Close attention should be paid to the fact that, although many FYUP students succeed academically, they truly struggle without the appropriate self-regulatory skills. Our educational systems, especially in Europe, must therefore provide students with competencies that enable them to excel in what, for the majority, is their most extreme academic experience.

Data statement: Research data are not shared as the current Spanish legislation does not allow to share data from underage participants.

Fecha de recepción del original: 21 de noviembre 2019

Fecha de aceptación de la versión definitiva: 20 de febrero 2020

REFERENCES

Appelrouth, J. I. and Zabrucky, K. M. (2017). Preparing for The SAT: A Review. *College and University*, 92(1), 2.

- Bazeley, P. (2013). *Qualitative data analysis. practical strategies*. London: Sage.
- Benito, R. and Alegre, M. A. (2012). The changing patterns of individual and school effects on educational transitions. Evidence from Catalan data (Spain). *Educational Research*, 54(1), 65-87.
- Boekaerts, M. (2011). Emotions, emotion regulation, and self-regulation of learning. In B. J. Zimmerman and D. H. Schunk (Eds.), *Handbook of self-regulation of learning and performance* (pp. 408-425). New York: Routledge.
- Brinkworth, R., McCann, B., Matthews, C. and Nordström, K. (2009). First year expectations and experiences: Student and teacher perspectives. *Higher Education*, 58(2), 157-173.
- Coertjens, L., Brahm, T., Trautwein, C. and Lindblom-Ylänne, S. (2017). Students' transition into higher education from an international perspective. *Higher Education*, 73(3), 357-369.
- de Boer, H., Donker, A. S., Kostons, D., D. N. M. and van der Werf, G. P. C. (2018). Long-term effects of metacognitive strategy instruction on student academic performance: A meta-analysis. *Educational Research Review*, 24, 98-115.
- Dias, D. and Sá, M. J. (2014). The impact of the transition to HE: Emotions, feelings and sensations. *European Journal of Education*, 49(2), 291-303.
- Dignath, C., Buettner, G. and Langfeldt, H. (2008). How can primary school students learn self-regulated learning strategies most effectively?: A meta-analysis on self-regulation training programmes. *Educational Research Review*, 3(2), 101-129.
- Estévez, I., Rodríguez, S., Valle, A., Regueiro, B. and Piñeiro, I. (2016). Incidencia de las metas académicas del alumnado de secundaria en su gestión motivacional. *Aula Abierta*, 44(2), 83-90.
- Flick, U. (2007). *Managing Quality in Qualitative Research (Book 8 of the SAGE Qualitative Research Kit)*. Londres: Sage.
- Galotti, K. M. (1999). Making a "major" real-life decision: College students choosing an academic major. *Journal of Educational Psychology*, 91(2), 379-387.
- Holmegaard, H. T., Ulriksen, L. M. and Madsen, L. M. (2014). The process of choosing what to study: A longitudinal study of upper secondary students' identity work when choosing higher education. *Scandinavian Journal of Educational Research*, 58(1), 21-40.
- Jackson, C. (2010). Fear in education. *Educational Review*, 62(1), 39-52.
- Karabenick, S. A. and Dembo, M. H. (2011). Understanding and facilitating self regulated help seeking. *New Directions for Teaching and Learning*, (126), 33-43.
- Koivuniemi, M., Panadero, E., Malmberg, J. and Järvelä, S. (2017). Higher

- education student's learning challenges and regulatory skills in different learning situations. *Infancia y Aprendizaje*, 40(1), 19-55.
- Krippendorff, K. (2004). *Content analysis: An introduction to its methodology*. Thousand Oaks: Sage
- Laborda, J. G. (2012). Presentación. De la Selectividad a la Prueba de Acceso a la Universidad: pasado, presente y un futuro no muy lejano. *Revista de Educación*, (357), 17-28.
- Looney, J. (2011). Developing high-quality teachers: Teacher evaluation for improvement. *European Journal of Education*, 46(4), 440-455.
- Lowe, H. and Cook, A. (2003). Mind the Gap: Are students prepared for higher education? *Journal of Further and Higher Education*, 27(1), 53-76.
- Muñoz-Repiso Izaguirre, M. and Murillo Torrecilla, F. J. (1999). La selectividad a examen. Estudio comparativo del acceso a la universidad en algunos países de Europa. *Cuadernos de Pedagogía*, (282), 91-97.
- Nagy, G., Trautwein, U., Baumert, J., Köller, O. and Garrett, J. (2006). Gender and course selection in upper secondary education: Effects of academic self-concept and intrinsic value. *Educational Research and Evaluation*, 12(4), 323-345.
- Niculescu, A. (2015). *Hidden in plain sight: Capturing freshmen emotional experiences and their effects on performance at university* (PhD, Maastricht University, The Netherlands).
- Panadero, E. (2017). A review of self-regulated learning: Six models and four directions for research. *Frontiers in Psychology*, 8(422).
- Pekrun, R., Goetz, T., Titz, W. and Perry, R. P. (2002). Academic Emotions in Students' Self-Regulated Learning and Achievement: A Program of Qualitative and Quantitative Research. *Educational Psychologist*, 37(2), 91-105.
- Pérez, A. B. (2017). Reexamining our approach to college access. *New England Board of Higher Education*, <https://nebhe.org/journal/reexamining-our-approach-to-college-access/>
- Reay, D. (2018). Working class educational transitions to university: The limits of success. *European Journal of Education*, 53(4), 528-540.
- Sang, B., Pan, T., Deng, X. and Zhao, X. (2018). Be cool with academic stress. The association between emotional states and regulatory strategies among Chinese adolescents. *Educational Psychology*, 38(1), 38-53.
- Schwinger, M. and Stiensmeier-Pelster, J. (2012). Effects of motivational regulation on effort and achievement: A mediation model. *International Journal of Educational Research*, 56, 35-47.
- Spanish Ministry of Education (n.d.). Contenido de Enseñanzas de Bachillerato. Retrieved from <http://www.mecd.gob.es/mecd/dms/mecd/educacion-mecd/>

- areas-educacion/sistema-educativo/enseñanzas/bachillerato/Organizacin-Bachillerato.pdf
- Spanish Ministry of Education (2005). REAL DECRETO 55/2005, de 21 de enero, por el que se establece la estructura de las enseñanzas universitarias y se regulan los estudios universitarios oficiales de Grado. Retrieved from <https://www.boe.es/boe/dias/2005/01/25/pdfs/A02842-02846.pdf>
- Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago: University of Chicago Press.
- Veenman, M. V. J. (2017). Learning to self-monitor and self-regulate. In R. E. Mayer and P. A. Alexander (Eds.), *Handbook of research on learning and instruction* (pp. 197-218). New York: Routledge.
- Weinstein, C. E., Acee, T. W. and Jung, J. (2011). Self regulation and learning strategies. *New directions for teaching and learning*, (126), 45-53.
- Zimmerman, B. J. and Martínez Pons, M. (1986). Development of a structured interview for assessing student use of self-regulated learning strategies. *American Educational Research Journal*, 23(4), 614-628.
- Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich and M. Zeidner (Eds.), *Handbook of Self-Regulation* (pp. 13-40). San Diego: Academic Press.

APPENDIX 1. CATEGORIES USED IN THE SELF-REGULATORY DATA ANALYSIS

Learning strategies

It was decided to code the interviews following the proposal by Zimmerman and Martínez-Pons (1986) because of two reasons. First, it is coherent theoretically with the general model of self-regulated learning in which this study is framed. Second, Zimmerman and Martínez-Pons (1986) used also their categories to analyse the content of structured interviews, the same data collection method used in our study.

While Zimmerman and Martínez-Pons (1986) used 15 categories, we reduced them to 13 by merging into the category of reviewing records the three categories of review they used (tests, notes and textbooks). Additionally, it was decided to keep the original category of Goal-setting and planning in the Learning strategies theme instead of moving it to the Motivational strategies for two reasons. First, we used this category to code situations in which the participant was reporting goal-setting and planning from a more cognitive point of view, in contrast to the category of

Thinking about their personal goals, in the Motivational strategies theme, where we coded those occasions in which the students were reflecting about their personal goals and how these affect their motivation. Second, to keep the structure of the original tool created by Zimmerman and Martínez-Pons (1986). Finally, there was a repetition of Self-consequences in the Learning strategies and Motivational strategies themes. When these were (meta)cognitive consequences it was coded in the Learning strategies theme and if they were motivational in the Motivational strategies theme. Therefore, the final categories were defined as follows:

1. Self-evaluation: when students tried to assess their work while they were doing it.
2. Organizing and transforming: rearranging materials of study (e.g., summaries and outlines).
3. Goal-setting and planning: establishing learning goals and trying to reach them.
4. Seeking information: self-initiated search of different non-social sources of information to complement their knowledge.
5. Keeping records and monitoring: keeping records of events and results.
6. Environmental structuring: managing the physical place of study.
7. Self-consequences: thinking or deciding rewards or punishments for their outcomes.
8. Rehearsing and memorizing: using different strategies to memorize the contents (e.g., repeating it several times, using flashcards to memorize concepts).
9. Seeking help from peers: searching for the assistance of peers.
10. Seeking help from teachers: searching for the assistance of teachers.
11. Seeking help from adults: searching for the assistance of adults.
12. Reviewing records: reading and consulting again materials like tests, class notes and textbooks.
13. Other: strategies that could not be included in the previous categories.

Motivational strategies

To code the motivational strategies, we used in the first round those included in the motivational beliefs from Zimmerman's self-regulated learning model (Zimmerman, 2000). They were the following categories:

1. Thinking about their own capacities (self-efficacy expectations): focusing on the capacity to perform the tasks.

2. Thinking about their outcome expectations: focusing on the possibilities about the success of the tasks.
3. Thinking about the task interest and/or value: focusing on the importance of the tasks.
4. Thinking about their personal goals: focusing on the meaning of the task for the person.
5. Self-consequences: considering or deciding rewards or punishments if the tasks are achieved.
6. Other strategy: strategies that could not be included in the previous categories.

After the first round, it was necessary to complement the original categories with two additional ones in order to increase the coding accuracy in all the statements under “other strategy”. Therefore, we added the categories:

7. Help seeking (Karabenick, 2011): searching for the assistance of other people (mainly parents and friends/peers) to maintain or increase personal motivation.
8. Reducing negative emotions and anxiety (Estévez *et al.*, 2016): strategies that tried to gain a better emotional state (e.g., doing sports) to maintain or increase personal motivation.

Emotional strategies

To code the strategies of emotional regulation we followed the categories proposed by Boekaerts (2011):

1. Expressing emotions: communicating and venting emotions through verbal and non-verbal communication.
2. Suppressing emotions: trying to inhibit emotions.
3. Denial and distraction: ignoring the emotion and avoiding self-awareness by redirecting attention to other activities or situations.
4. Re-appraising the situation: trying to think about the situation that is producing the emotion in a different way.
5. Acquiring and providing social support: asking help from social relationships to cope with the emotions.
6. Other strategy: all strategies that could not be included in the previous categories.

