Academic success of mature students in higher education: a Portuguese case study

Lucília Santos
University of Aveiro, Portugal

Joana Bago
University of Aveiro, Portugal

Ana V. Baptista
University of Aveiro, Portugal

Susana Ambrósio
University of Aveiro, Portugal

Henrique M.A.C. Fonseca
University of Aveiro, Portugal (hfonseca@ua.pt)

Helena Quintas
University of Algarve, Portugal

Abstract

The increasing number and diversity of non-traditional participants who are now entering Higher Education Institutions (HEI) highlights the relevance of questioning on mature students' academic success. Thus, the purpose of this study is to characterise mature students over 23 years old (MS23) of two Portuguese HEI, and understand their academic success. The study focuses on results obtained through a case study, based on quantitative and qualitative data: questionnaires and focus groups, respectively. We discuss the influence of different variables (such as: age, gender, area of study, schooling level at the entrance to the university, family monthly income) on MS23's academic success, and we also describe some obstacles they face and changes they perceive when attending HEI. Results seem to demonstrate a similar tendency between data gathered on both HEI. Some recommendations for HEI, based on the results, are presented in the final section of this article.

Keywords: academic success; higher education; lifelong learning; mature students

[58] Santos. L., Bago. J., Baptista. A. V., Ambrósio. S., Fonseca. H.M.A.C., & Quintas. H.

Introduction

The internationalisation, expansion and massification of Higher Education (HE), and concomitant heterogeneity of students' profiles at all levels of study are just some contemporary factors that challenge the HE mission. These tendencies and the European guidelines, embedded in the Bologna Process, demand from Higher Education Institutions (HEI) and individuals (students, teachers, managers, stakeholders and employers) to change the way they view the mission of HE, thus highlighting its social dimension (Görason, Maharajh, & Schmoch, 2009; Soeiro, 2009). Hence, it is essential to question the openness to diversity, the creation of new opportunities, and the focus on equity and on teaching and learning processes (Roberts, 2011). Since 2006, Portuguese HEI were provided with a new admission framework that allowed 'mature students aged 23 and above' (MS23) to access HE through a three-step evaluation process that recognises their prior formal, non-formal, informal learning and academic skills (Fragoso, Gonçalves, Ribeiro, Monteiro, Quintas, Bago, Fonseca & Santos, 2013).

 The study here presented is part of a broader research project carried out by two Portuguese universities, aiming to characterise and to get a deeper understanding of the factors that influence the academic success of MS23 enrolled in those two HEI. As such, the following research questions are here analysed: 1) how do different sets of variables influence academic achievement of MS23? And 2) what are the obstacles and difficulties experienced by MS23, and the consequences of attending HE? Though this study was developed at specific Portuguese HEI, we envisage that the results and discussion will have a wider scope and address other national and international contexts' concerns.

Lifelong learning in higher education: intertwining the concepts

The agenda of lifelong learning (LLL), that emerged from earlier notions of lifelong education (European policies in the 1960s, UNESCO and OCDE discourses in the 1970s and European Documents in the 1990s), received in 1996 new visibility with the European Year of LLL defined by the European Commission (Fragoso & Guimarães, 2010; Nicoll & Olesen, 2013). Since then, LLL has evolved in the sense that educational policies should meet the needs of economic growth, which is particularly linked to training, the individual development and the promotion of partnerships and networks with diverse stakeholders (Fragoso & Guimarães, 2010). LLL is thus understood according, at least, to two different viewpoints: one considers that LLL includes in its 'essence' the instrumentalist and economistic perspective. In this sense, LLL can be understood as education in general, i.e., vocational education and training, non-formal and informal learning that results in improvement of knowledge, skills and competences within a personal, civic, social and/or employment-related perspective (European Parliament and Council, 2006). The other viewpoint proposes to address the personal development, instead of what the labour and economic markets may gain from education. Thus, LLL can be assumed to be 'the development of human potential through a continuously supportive process which stimulates and empowers individuals to acquire all useful knowledge, values, skills' (Longworth & Davies, 1996, p. 22). These different perspectives on LLL seem to depend on policy-makers, and are transversal to all sectors of society. HEI are part of this process and have to be prepared for new demands and challenges and, therefore, should offer learning opportunities, services and research to support personal and professional development of all

individuals (Leuven Communiqué, 2009). Taking into account a viewpoint of LLL as stated by Longworth and Davies (1996), Portuguese HEI, as other European HEI (European Commission/EACEA/Eurydice, 2015), established a network of academic pathways whereby students can use to (re-)enter HEI, to move between academic courses' subjects, or even between HEI within the Portuguese educational system.

Portugal widened the participation and access to education, namely to HE, however, is still far from attaining the ET2020 targets despite the implementation of tools such as the European and National Qualification Frameworks (as in 14 of 28 EU countries) and mechanisms to validate non-formal and informal learning (along with 10 other EU countries). Moreover, lifelong guidance policies are not yet fully implemented in Portugal at HE level (European Commission, 2015).

In Portugal (as in other 10 EU countries), the participation of adults in LLL are below European average (European Commission/EACEA/Eurydice, 2015). As in France, UK, Sweden, Spain, and Ireland, Portugal developed a preparatory program for non-traditional HE candidates, MS23 (Fragoso et al., 2013) that is twofold: it provides alternative credentials to enter HE and, at the same time, it aims to ensure that non-traditional HE candidates possess the skills necessary to succeed in their learning goals. This opportunity offered by HEI, within LLL approach, led to the emergence of a new public at HEI: Mature Students (alias, MS23).

Mature students at a glance: reviewing some distinctive characteristics

According to the literature, mature students (MS) are named 'mature', because they share a particular set of inter-related characteristics. Generally, they dropped out school earlier, have been away from formal academic system for quite a while, and therefore often demonstrate a lack of full academic qualifications and no previous HE experience: 'students/learners who have passed the usual age associated with initial education at different International Standard Classification of Education (ISCED) levels' (European Commission /EACEA/Eurydice, 2015). Additionally, the majority of MS comes from low economic and social groups in society, has several responsibilities and commitments at work and at home. They usually attend HE in part-time, due to factors like limited time to study, lack of proper opportunities provided by HEI in terms of diversity of classes' schedules, and the lack of flexibility of employers so that MS can attend HE. MS are often financially independent and, when compared with their younger colleagues, are more responsible, mature with defined goals (e.g., Chao, DeRocco, & Flynn, 2007; Crawford, 2004; Jarvis, 1995; Kasworm, 2003; Kelly, 2005; Rogers, 2002).

The key motives for MS to enrol into HEI are multifaceted and cannot be considered in isolation, they have different weights and relate to the context, background, and life situation of each student. MS generally have no major issues regarding motivation: they are ready to learn and want to be successful in reaching their goals (Crawford, 2004). Besides career issues which impel MS towards HE, other reasons of personal, emotional, social and cognitive nature may be involved in the decision. These may relate to life transitions or changes, because of external expectations or for escape purposes (Jarvis, 1995), the interest in a course's subject, and a desire to give a new direction to their lives and to continue their studies (Davies & Williams, 2001).

The number and diversity of MS in the Portuguese HEI experienced major changes since 2006 when the framework for MS23's access was implemented ('deleted for

anonymity', 2013). This new reality led to the emergence of some research studies, regarding, among others, the MS23's characteristics, their motivations to enrol HE, their particularities concerning the teaching and learning process, and therefore MS23's success (e.g. Ambrósio, Araújo e Sá & Simões, 2013; Batista, 2011; Correia & Mesquita, 2006; Field, Merrill & West, 2012; Fragoso et al., 2013; Oliveira, 2007).

Mature students' academic success

As observed above, the literature on MS focuses largely on the characteristics that distinguish them from the so-called 'traditional students', concerning their socio-economic origin, motivations, access and participation in HE (e.g., Burke, 2002; Schuetze & Slowey, 2000). Research seldom addresses the teaching and learning processes, gives suggestions and/or reflections on "(re)new(ed)" pedagogical methodologies and strategies to help MS to overcome their difficulties and to enhance their experiences in HE (Garratt, 2011; Kelly, 2005).

Within the Portuguese context reasons do not differ substantially from those described above (e.g., Correia & Mesquita, 2007; Oliveira, 2007). MS often have multiple commitments; they are required to manage time between work, study and family responsibilities. Lack of time is the major obstacle expressed for MS in HE, specially dissatisfaction with teachers who are unaware of their difficulties to meet deadlines and to achieve certain academic objectives (Correia & Sarmento, 2004). Moreover, they experience stress in their social relations because they fear rejection by younger colleagues – a feeling that tends to fade with time, social exposure and integration (Fragoso et al., 2013).

The concept of academic success itself is complex and multifactorial and, thus, it does not represent the same thing to most individuals (students, teachers, stakeholders, researchers). To circumvent this difficulty, most studies choose to analyse academic success as student retention and/or as successful conclusion of studies within a specific period of time (Higher Education Academy, 2008), where success is reduced to rates. Moreover, there are multiple ways to measure academic success or retention (depending on the perspective adopted), according to specific institution's evaluation aims and policy. For example, retention may be measured as the proportion of an institution's intake which is enrolled in HE in the year following their first entry (National Access Office [NAO], 2007, p. 5), while academic success may be defined as the product of a set of results obtained by students during their time in academia (Tavares & Huet, 2001).

Thomas (2002) identified seven main factors that influence MS' success: 1) academic background, 2) academic experience, 3) expectations and institutional commitment, 4) academic social match, 5) income and employment, 6) family support and commitments, and 7) university support services. Additionally, Thomas and Quinn (2007) described scenarios where the degree of success relates to practices that lie within the institutions. Thus, we may regard HEI as responsible for creating opportunities that promote diversity and inclusion – concepts that should be integrated into their own mission. More recently, Wyatt (2011) presented some key measures towards the enhancement of MS' academic success: improving information about the campus and university practices; stimulating teachers' availability to understand MS' learning styles; stimulating the communication between MS and the academic community; promoting their integration; and understanding MS' external time constraints.

To conclude, we would like to bring two additional ideas. When talking about academic success, one may approach the issue through a positive and/or negative perspective – thus adopting a specific point of view according to particular type of reasons. Secondly, when approaching MS' academic success, it is impossible to understand the issue without a thorough knowledge of what MS' characteristics are (Ross-Gordon, 2003).

Methodology

Setting the scene: description of the research project and scope of this study

This paper is part of a broader research project 'Non-traditional students in Higher Education Institutions: searching solutions to improve academic success', steered to understand the situation of MS23 with data collected in two Portuguese universities through questionnaires, interviews and focus groups interviews (FGI) directed to students, teachers, and persons with management positions. In this study the authors present only data from MS23 interviews and FGI.

Method: case study

A case study with two-cases design (MS23 at two universities), but with a single-unit of analysis (the characterisation of MS23) (Yin, 2009) was followed because 1) the main research questions were supported in the "how"/"what" and "why" of a specific phenomenon, 2) a contemporary phenomenon was chosen to be researched, over which the investigators have little or no control, 3) it opened the possibility of using multiple sources of evidence (of qualitative and/or quantitative nature), giving high importance to participants' voices (data from questionnaires and FGI will be analysed), 4) and it allowed an analytic generalisation. As such, the conclusions and outputs may be important not only to HEI here represented, but also to other contexts – assuming thus, a perspective of instrumental case study (Stake, 2000).

Instruments and participants

Questionnaire surveys

Two independent questionnaires, applied in 2011 at universities U1 and U2 (referred in this way to assure the anonymity of each HEI), were developed with a similar outline and content to characterise MS23' populations from both HEI. They were organised in 6 sections: 1) socio-demographic and family background, 2) professional and educational pathway, 3) academic path at HE, 4) learning and teaching process at HE, 5) social relations, and 6) comments/suggestions. The questionnaires were made available online so the students could answer in their available moments, during a fixed period of time and applied to all MS23 of both HEI. From the U1 we had 164 respondents and for the U2 283 (respectively, 59.5 % and 77.5 % of the total MS23's population).

The variables selected were age, gender, area of study, schooling level at the entrance to the university, and family monthly income. In the context of this study academic success was measure as students' average grades, because the preferred multifaceted approach (Thomas & Quinn, 2007) was unattainable under our research conditions.

The areas of study were divided into three groups 1) education, arts, humanities and services (EAHS), 2) social sciences, trade, law, health and social protection (STLHS), and 3) science, mathematics and computer science, engineering, manufacturing and construction (MEMC). The schooling level that MS23 possessed when entering HE was obtained by asking in an open question and later coded into the following categories: students with completed secondary education, students with incomplete secondary education, and students with completed primary education. Monthly family income was also one of the dimensions considered that was ranked into 4 options: less than 1000€, 1000-1500€, 1501-2500€, and above 2500€.

Finally, the question formulated as a multiple-choice query 'What are the main obstacles you feel during the teaching and learning process and also throughout the entire academic pathway?' and which establishes a semantic relationship with the discussion carried out in FGI must be detailed. The respondents could select their answers from the following options: 1) 'The bachelor/master degree does not match my expectations'; 2) 'I have difficulties in understanding certain contents from some curricular units'; 3) 'Due to professional issues/mismatch between professional and university schedules'; 4) 'Due to financial difficulties'; 5) 'Lack of motivation'; 6) 'Lack of structural/material conditions (equipment, labs, and so on)'; and 7) 'Lack of specific support that should be given to MS23'.

The validation of the questionnaire was assured by cumulatively (i) being designed taking into consideration recurrent topics that emerged from the international literature on the subject as fitting the questionnaire's purposes, and (ii) being validated by experts in the area, namely the external consultant of the project and the coordinator of the project as well. Reliability is demonstrated by the fact that the data gathered in two distinctive Universities were not so different, as it will be explored in the next section. The disparity that exists in the results demonstrate that two HE institutions may have different culture, which may also determine different experiences and/or perceptions over a same topic. Nevertheless, homogeneity in the results is more recurrent as it will be highlighted.

Universities' databases

In order to cross several types of information with questionnaires' results we accessed the registries of both universities' databases (Udb) from the academic years of 2006/07 to 2009/10. Information from 276 (U1) and 365 (U2) MS23 regarding variables such as gender, age, area of study and students' grades were hence collected.

Focus groups

To 'monitor' the progress of MS23 at HE, three independent semi-structured FGI were carried out in each university during 2011. We had the participation of 3 to 8 MS23 (24 students in total), depending on their time availability to join in the FGI. These students volunteered to participate in the FGI. This may be an indicator of their motivation and interest in being actively involved in HE. Consequently, this may influence the results we may have when approaching FGI' data: since the questionnaires were self-administered and FGI' participants volunteered to be participate, differences in motivations may influence the results. To address MS23' perspectives on the obstacles they face while attending HEI and the impact of HE in their lives, the following topics were explored: 1) main reasons to apply to HE, 2) expectations towards HE, 3) adaptation to HE, 4) pedagogical issues, 5) social relationships with teachers and other students, 6) obstacles perceived, 7) relations between HE and work, 8) consequences of attending HE, and 9) suggestions to improve their HE experiences.

Thus, FGI were carried out to get more understanding of a particular phenomenon. As such, since this research was being carried out at two HEI, the same template was used. This was an enriching way of achieving a grounded comprehension by exploring the topics identified in the previous paragraph. Those aspects emerged from the international literature in the field and the expert feedback of the project's external consultant and coordinator. We may assume the results from the qualitative approach may be transferable to other contexts or settings, due to the overarching method chosen – the case study – and the links the qualitative results have regarding the literature in the field.

Data analyses

Quantitative data: statistical analysis

Quantitative data gathered through questionnaires and Udb were analysed with SPSS version 18.0 (SPSS, Chicago, IL, USA) using the appropriate statistical tests (see Results' section for additional details): Chi-square test for independence (chi-square), Kruskal-Wallis H test (H), Spearman's rank order correlation (r_s). Two additional parametric tests were also used: the Independent T-test (t) and the One-way ANOVA (F) with Post-hoc comparisons by Bonferroni test. All variables were checked for compliance with applied tests and when required transformed using the Box-Cox Normality Plot Free Statistics software (Wessa, 2012). The significance level was set at *P*= 0.05.

Qualitative data: content analysis

FGI´s content analysis was carried out with support of NVivo8 software. This tool was important to organise the data, since we had long transcripts and many evidences to support each category and subcategory. It enabled us to visualise the tree of categories, to record the categorisation and make changes/ amendments in the categories' tree as well as in the process of content analysis. We have decided to follow semi-structured focus groups, since it was essential for us to follow certain dimensions and questions, but allowing diversity, flexibility and openness in the discussion. In fact, our major objective of engaging the participants in an in-depth reflection and discussion was fully accomplished. The use of a semi-structured template facilitated the semantic search for patterns, despite the huge amount of data to be systematised and conceptualised. The major challenge in the process of content analysis was to achieve semantic consistency and suitable subcategories, descriptions and indicators. Therefore, to achieve a categorisation that made sense, we passed through different phases in the content analysis' process in order to reach a coherent semantic pattern and organisation. Thus, an interactive and reflective process was followed, which was constituted by: analysing --> systematising --> reviewing --> analysing again --> systematising --> and trying again to reflect on the semantic organisation.

Results

The data here presented only characterizes the subset of mature students, referred to as MS23, hence no comparison is presented with their younger colleges, also called "traditional students".

To better read, understand and attribute meaning to the quantitative data gathered at U1 and U2 (through questionnaires and Udb), these results will be presented separately in the first sub-section. We will therefore look at the influence of different variables (age, gender, area of study, schooling level at the entrance to the university, and monthly

family income) on MS23's academic achievement (that is, for this study, grades). The second sub-section deals with the description of obstacles MS23 face and the consequences they experience because of attending HE. In this case, results gathered through a questionnaire open answer and FGI will be presented together in order to reveal common patterns observed in both HEI.

Influence of different variables on MS23' academic achievement

U1

At U1, the questionnaires' results indicate that almost half of MS23 (42.4 %) were already in the 3rd year of their degree, 24.1 % in the 2nd year, 20.3 % in the 1st year, and the remaining respondents (13.3 %) had completed their course. In addition, 47.6 % of MS23 were enrolled as part-time students and 81.4 % made use of the student-worker status - a legal framework to promote continuous education - which means they were working while pursuing a HE degree.

These students have diverse (formal) educational pathways before entering HE, from which three major profiles may be identified: 1) students who have completed secondary education (59.4 %), 2) students with incomplete secondary education (22.6 %), and 3) students who only completed primary school (10.3 %). Another parameter of interest for MS23's characterisation is the time span of the interruption in their formal education. We observed that 31.1 % returned to formal education (in this case, HE) after a period of 6-11 years, while 52.4 % indicated more than 11 years out from school.

Regarding MS23's academic achievement at HE (in terms of grades in a scale between 0 and 20), the responses to the questionnaires show that 6.5 % of MS23 failed to pass, 31.6 % achieved grades between 10-12, 54.8 % had grades between 13-15, and 7.1 % pass with distinction (grades above 16).

Considering the influence of certain variables on academic achievement, we observe that Spearman's rank order correlation to determine the relationship between age and the classifications MS23 achieved in the courses, shows a statistically significant positive correlation between these two variables [$r_s(8) = 0.201$, $P = 0.012$]. To explore complementary information from Udb, one-way ANOVA was conducted on average grades of four age groups: group 1, less than 29 years old; group 2, 30-39; group 3, 40-49; Group 4, 50 and above. There was a statistically significant difference for the four age groups in MS23' scores [$F(3, 272) = 9.04$, $p < 0.001$] with an effect size, calculated using *eta squared*, of 0.091 (Table 1).

Table 1 – Average grades of 4 age groups of MS23 obtained from the registry databases of the universities U1 and U2

Age group	U1			U2		
	n	Mean ± Std. Dev.		n	Mean ± Std. Dev.	
Group 1 (Less than 30)	114	12.21 ± 1.35	a	134	12.68 ± 1.25	a
Group 2 (30 to 39)	101	13.12 ± 1.32	b	130	13.12 ± 1.46	a
Group 3 (40 to 49)	52	12.80 ± 1.36	b	83	12.70 ± 1.40	a
Group 4 (50 and above)	9	12.96 ± 1.38	ab	18	12.82 ± 1.06	a
total	276			365		

Different letters within columns indicate significance at 0.05 levels (Bonferroni test).

We may conclude that younger MS23 achieved lower marks compared with older students - however, the small sample size for older MS23 requires some caution in interpreting this result.

Additionally, questionnaire responses indicate that gender had no significant effect on MS23' academic achievement [chi-square (3) = 3.171, P = 0.366]. Even though the analysis of data from Udb showed statistically significant differences [t(273.9) = -2.483, p = 0.014] in scores for male (12.5 ± 1.47) and female (12.9 ± 1.29), the magnitude of these differences explained by gender were very small (eta squared = 0.022).

When MS23 were grouped according to their area of study, we found a statistically significant association with academic achievements. The questionnaire data analysed with the Kruskal-Wallis test [H(2) = 7.773, P = 0.021] show that MS23 from the EAHS had best results, while those from the MEMC tended to achieve lower grades. This result is in agreement with the one-way ANOVA performed on data from Udb, exploring the impact of course's study area on MS23's levels of achievement for the same four groups [F(2, 273) = 7.826, P < 0.001] (Table 2). The area of study explains 5.4 % of observed variance, as shown by the effect size measured by eta squared.

Table 2 – Achievement of MS23, measured by the mean of academic grades in 3 area of study (for details see section 4.3.1) obtained from the registry databases of the universities U1 e U2.

Area group	U1			U2		
	n	Mean ± Std. Dev.		n	Mean ± Std. Dev.	
Group 1 (EAHS)	87	13.15 ± 1.34	a	85	13.04 ± 1.48	a
Group 2 (STLHS)	106	12.42 ± 1.33	b	195	12.95 ± 1.33	a
Group 3 (MEMC)	83	12.51 ± 1.43	b	85	12.43 ± 1.25	b
total	276			365		

Different letters within columns indicate significance at 0.05 levels (Bonferroni test).

The economic situation of the family is often said to have an influence in MS23's success. To observe this effect, we tested for a Spearman's rank between family income

and classifications obtained by MS23 which showed no statistically significant correlation [$r_s(8) = 0.146$, $P = 0.079$].

To determine if there is any relationship between the results obtained by the MS23 and the schooling level on their entrance to U1, we used Spearman's rank order test which demonstrated no statistically significant association between the two variables [$r_s(8) = 0.058$, $P = 0.483$]. This result was unexpected, as the descriptive analysis showed that MS23 entering university with a higher school level tended to achieve better results - an assumption, however, not statistically proven.

Finally, when asked if they had failed curricular units, 62 % of MS23 answered affirmatively, indicating difficulties of these students in HE. The answers also revealed that 52.4 % failed at six or more curricular units in the 1st year of their course. In the 2nd and 3rd years, failure rose to 63 % and 82 %, respectively.

U2

At U2 more than a third of the sampled students (36.4 %) were enrolled in the 2nd year of the course, 27.3 % at 3rd year, and only 18.2 % in the 1st year. The rest of the respondents (12.9 %) were students that had already completed their studies. Moreover, 28.8 % of the respondents were part-time students, whereas 67.7 % had the student-worker status.

Regarding MS23's previous educational pathways at entry in U2, three distinct profiles can be identified: 1) 46.4 % of MS23 had completed secondary school, 2) 38.8 % entered HE without completing the secondary education, and 3) 14.7 % had only done basic schooling. We have also noted that more than half of MS23 (51.9 %) have interrupted their formal educational path for more than 11 years, 26.7 % between 6-11 years, and the rest of the respondents (21.3 %) less than 6 years.

Regarding the classifications, the majority of respondents (51.9 %) reported average grades in the range of 13-15, while only 26.9 % from 10-12 and 7.1 % over 16. The remaining MS23 (14.1 %) failed their academic year.

Considering now the influence of different variables on academic achievement, responses to questionnaires indicate no statistically significance between age and the grades [$r_s(8) = 0.020$, $P = 0.742$] - information also corroborated by data from Udb (Table 1). Similarly to what was observed in U1, gender does not have a significant influence on MS23' academic achievement [chi-square (3) = 2.661, $P = 0.447$].

With respect to the area of study, one can conclude that this variable has a significant effect on the classification of curricular units. Kruskal-test [$H(2) = 27.822$, $P < 0.001$] shows that the grades obtained vary according to the subject studied. As such, the respondents from EAHS show better performance than those from MEMC. Likewise the questionnaires also show that MS23 from STLHS are likely to achieve higher grades than respondents from other areas - those that include 'hard' disciplines such as Mathematics, Physics, Algebra, Engineering and Biochemistry. These results are in agreement with data from U2's Udb (Table 2).

A statistically significant effect was observed between the course study area in the average grades, but only 3 % (effect the size calculated using eta squared) of the observed variance is explained by the course area [$F(2, 362) = 5.602$, p = 0.004]. Likewise, MS23's family income had no statistically significance effect on average grades [$r_s(8) = 0.068$, $P = 0.268$] - the same was noticed in U1.

Furthermore, no significant correlation was observed between the effect of MS23's schooling level at the entrance of U2 and their academic achievement [$r_s(8) = -0.020$, $P = 0.740$] - another aspect similar to U1.

When we asked MS23 if they failed any curricular unit throughout the course, 67.6 % responded affirmatively, many with five or more curricular units to do. Moreover, 57.6 % of respondents failed to complete the 1ˢᵗ year, 53.0 % failed in the 2ⁿᵈ year and 75.6% in the 3ʳᵈ year. The same tendency was observed for U1.

Obstacles faced by MS23 and consequences for attending HE

Questionnaires responses to a particular question about the obstacles faced by MS23 throughout their experience in HE show a similar pattern in both HEI: obstacles are centred mainly on incompatibilities between job requirements and academic schedules, followed by the perception of a lack of specific support from HEI directed to MS23, and the difficulty to understand the content of certain curricular units.

When comparing the effect of obstacles with MS23's age, we found that lack of motivation is particularly noticeable among younger students at both universities. In U1, students aged 30 to 49 said they had fewer difficulties in understanding new contents and thus acquiring new knowledge, when compared with other MS23. For this group of students, professional motives were extremely important to their lives. In U2, however, older MS23 (over 50 years old) reported having greater difficulty in understanding the content within some subjects, and often were of the opinion that the course they were in did not match their expectations.

FGI gave further information to help getting deeper understanding of some results obtained from the quantitative analysis. The majority of participants had a job, so they had stricter demands on how they managed their time. Classes had to fit working time and/or during the time pre-arranged by employers. MS23 usually had extremely long and filled days, so they studied later in the evening. Moreover, the distance between the university, housing and work, often hampered the arrival on time at the university. We may highlight the following comments:

> To work 8 or 9 hours a day, to leave the University at 9 pm or later, and then arrive home extremely late… And then to think: I have to study, I have to work, so I must get up at 7.30 am… It is so complicated... (Student 1).

> It is very difficult to manage my time: to do all university works, to study, to come to classes, to take care of my children… Everything! (Student 2).

Attending HE is seen by most of MS23 as an investment towards the future, notwithstanding the enormous personal financial effort. Thus, the family budget was another important dimension, even though many had a job (seldom well paid). Their job is critical to their lives and took precedence over classes and other university activities, often requiring adjustments to their professional schedules. However, MS23 indicated that, despite the difficulties they faced, they consider HE attendance to be *worth the effort*. Furthermore, there was an obvious reluctance for MS23 to use some of the special student-worker rights they are entitled for fear of potentially jeopardising their job in a precarious labour market:

> Regarding the schedule at the university, it was extremely difficult to do a certain course, which I could not attend at all. Practical classes were during the morning and my employer did not allow me to come, not even once, during an entire semester… (Student 3).

MS23 considered the number of tasks that are required excessive, complex and with short deadlines – even though most still preferred curricular units where a continuous type of assessment was followed:

> The most complicated thing for me is to do group works, since I am a student and also a worker. So I have many difficulties in joining with my colleagues to do group works (Student 4).

Additionally, in some courses, MS23 did not get as much information on planned activities as their other colleagues - a situation attributed to a lack of sensitivity of teachers concerning their specific needs:

> I do not spend all the time at the university, so there are things that teachers do not tell me. For example, sometimes some teachers pass in the hallway and say: 'that assignment you had to do, after all it is to be delivered not Sunday but only next week'. They do not send an e-mail… They only share that information with some students and others do not know (Student 5).

The so called "hard disciplines", such as Mathematics, Physics, Algebra, Engineering and Biochemistry, were noted as being particularly difficult to MS23 who were several years away from formal education before enrolling in HE. These students indicated they needed extra time to review primary and secondary school topics to keep up with these disciplines:

> I had never had Physics. So I was trying to study at home… And in classes, I tried to follow the subject… But it was so difficult… (Student 6).

Finally, some positive consequences of attending HE were expressed by participants in the FGI. They emphasised being more aware of daily events, linking them with content learnt in the classroom, and started to pay more attention to details. Therefore, it may be stated that attending HE contributed to expanding their critical attitudes towards the context of daily life:

> I believe that it is a great asset to work and study at the same time (Student 7).

> In my case, when I became unemployed I started to doubt myself (…) But entering this University led me to create objectives (…) And then the fact of being able of achieving all my goals enhances my self-esteem, my self-confidence in my own abilities (Student 8).

Additionally, they mentioned that (most of) their employers acknowledged the efforts they were making to balance their commitment and they were an asset to the company. In general, MS23 seemed to feel more self-confident, indicating a higher level of self-esteem, and believed that the investment made in their qualifications gave them a good return. We cannot forget that some discrepancy between qualitative and quantitative data results may be a consequence of FGI' participants: they were intrinsically motivated to participate in the research project and this may have had some influence in the results. Additionally, when talking about FGI' results, we consider a small number, when compared to questionnaires' participants.

Key findings and discussion

From 2006, the progressive increase of MS23 in the classrooms awoke 'silent' reflections on the academic success of these students. Soon after this increase in diversity of students, this subject became a major concern for teachers/researchers and university management. This paper is part of this broader reflection towards finding strategies and/or recommendations to improve these students' academic success. The universities involved in this research, although more or less geographically close, have populations of MS23 slightly different indicating some degree of regional and academic identity (Table 3).

Table 3 – Summary of MS23' academic profiles at the entrance in both Universities (U1 and U2).

	U1	U2
School level at entrance		
Complete Secondary school	59.4 %	46.4 %
Incomplete Secondary school	22.6 %	38.8 %
Primary education	10.3 %	14.7 %
Years away from school	10	12 to 21
Dominant study area	Education, Art, Humanities and Services	Social Sciences
Regime		
Partial-time	47.6 %	28.8 %
Student-workers	81.4 %	67.7 %

Despite the differences listed in table 3, the analysis of questionnaires showed similar tendencies among MS23 of both universities, reinforcing the international consensus on the distinctive features of these participants, as we will see later in this section.

Before proceeding any further, we consider important to note a limitation of this study. For the sake of operational purposes, the concept of "academic success" is here understood as the academic performance in terms of average grades. Consequently, this may be considered a simplistic interpretation of academic success, previously explored in the theoretical section; hence, the results presented here must be interpreted in light of this limitation. Thus, to mitigate this difficulty, we used information from different sources: questionnaires and Udb (quantitative in nature), and FGI (qualitative). This approach is not without its pitfalls, for example, the design and method of administration of FGI, which is strongly based on social interactions, may influence responses and the type of data collected. Often it opens space not only for comments and discussion of the participants, but also for researchers to be biased towards the view of students eager to be involved in the life of HEI, as well as the reflections of researchers about their own role in the process. However, it is this social background that is one of the most positive aspects of FGI, as it stimulates interaction, discussion, self- and meta-reflection among (all) the participants – at different levels and also at different times. Due to 'the dynamic nature of the process' (Greenbaum, 2000, p. 13), there is a gain in the in-depth perspective on the various interrelated topics, and allows the understanding other data (quantitative). Another limitation of this study refers to the interpretation of differences observed between the two universities. For example, why only U1 showed a statistically significant difference on the correlation between age and grade? Available data only allows some degree speculation regarding those differences,

which may be attributed to MS23 regional specificities, some already reported on Table 3.

Therefore, the assumption that quantitative and qualitative data can be useful when intertwined to better understand a specific phenomenon goes in line with the triangulation in the case study (Yin, 2009): multiple sources of evidence benefits data interpretation, discussion, and even the formulation of theoretical assumptions. For example, data from Udb and the questionnaires indicate no significant impact of parameters such as schooling level at entrance in HEI, the time span away from formal education, and students' income in MS23 academic results. However, the information acquired from FGI, used to understand 'reality' more in-depth, suggests that older MS23 are less prepared and lack basic skills and knowledge to enrol in HE work, when compared with their younger colleagues - a phenomenon also observed by Howell (2001 as cited in Wyatt, 2011) and NAO (2007). These difficulties occur mainly during the 1st and 2nd semesters and, to some extent, are mitigated by MS23's personal resilience, life and professional experiences, which may explain why it escapes from being captured by data from Udb.

Baxter and Hatt (1999) noted MS are more likely to achieve better grades, due to higher motivation and effort, a feature also shared by MS23. FGI also revealed that social class origin is an important factor in MS23's participation in HE, limiting or expanding opportunities - results that are in line with other studies (e.g., Burke, 2002; Thomas, 2002).

In both universities, MS23 tended to avoid enrolling in courses where disciplines are perceived to be 'hard' and/or complex. They seemed to seek courses where they assume they will be able to obtain better grades, i.e., choosing mainly degrees in the areas of arts and social science. This tendency, also presented in NAO (2007), highlights the need for academic management better informing candidates about the degrees available in HEI, their characteristics, success rates and even employment tracks.

MS23 often enter HEIs as full-time students, though most have a job, whereas for MS of other European countries part-time work is the predominant option (Kasworm, 2003). Thus, returning to the crux of this study, one may ask: how can MS23 overcome the main obstacle identified herein to achieve HE success, i.e., balancing both full-time commitments? Perhaps most of them cannot, otherwise we would not see such a high level of failure in curricular units along their HE pathway. Professional and academic commitments are not the only factors that may justify their academic failure, this may also occur due to lack of information concerning the existence of other alternatives for attending HE.

The size and weakness of Portuguese economy precludes adjustments that enable MS23 to maintain normal levels of family, social, cultural and professional commitments during the transition into HE. Under normal circumstances these changes need time to stabilise, to recreate their adjusted-identity and adapt to their new "environment" or contexts. From these the most important are the adjustments related with work motives (Davies & Williams, 2001; Kasworm, 2003) and/or to a lesser extent the thirst for knowledge (Kasworm, 2008). However, these motivations are being 'challenged' by difficulties amplified in recent years by the deep economic recession in Portugal, as in other countries of Southern Europe. For instance, the fear of losing their jobs in so hard economic environment makes MS23 refrain of using legal study-facilitating opportunities, such as the worker-student status, so that their jobs are kept safe. In this context it is not surprising to find significant differences between MS23 and their European counterparts.

Returning to the subject of operationalizing the study of "academic success", the future approach to this subject should include a broader and complex set of parameters instead of just simple quantification of grades. Further studies are needed (with a holistic approach) to enable a deeper understanding of the set of factors that 'really' influence (and how) the diversity of motivations and obstacles faced by MS23, and how success is perceived by these students. Future studies must include, among other aspects, the reasons behind the decision to return to school and the adjustments to the new circumstances of life as HE students. For example, we consider worth trying constructing conditions where empirical research could follow Tavares and Huet (2001) perspective, as it would certainly bring into light some new and important perceptions and results. However, and following Thomas' (2002) reflections, such approach should include variables like … 'academic experience: attitudes of staff, teaching and learning and assessment' and 'social experience: friendship, mutual support and social networks', among other factors, which relate directly to teacher and staff training.

Conclusions

The effect of HE in the daily life of MS23 can be described as 'choice and a life-changing engagement' (Kasworm, 2008, p. 27), as the above results and discussion also allow to conclude.

Generally, highly motivated and more focused, these students will trigger and experience transitions as a process of change and adjustment to new life circumstances with an increase in their self-esteem, self-confidence and productivity. HEI should therefore reflect, adjust, and implement several types of procedures and pedagogical strategies that create opportunities and enhance the success of MS23, thus contributing to the success of the academic institution in general. As a result of this study, HEI should engage in different and interacting levels:

- At the level of management and administrative services - particular emphasis should be put on understanding the limitations of professional MS23, for example, intervening and/or negotiating with employers in order to make it possible for employees to attend classes more regularly.
- At academic level - providing greater diversity of schedules, enabling MS23 to attend classes over a longer period of the day. Implementing and deepening teachers training, making them aware of the diversity of students' profiles in their classes. Tutorship and peer-monitoring should be implemented/fostered, in order to overcome difficulties on some courses content, especially for 1st year students.
- At research level - fostering institutional data collection and research, essential for institutional transformation towards academic success (Yorke & Thomas, 2003).

Although there is no evidence from the results and analysis of questionnaires and FGI that explicitly mention this aspect, a major inference from this study is that a comprehensive discussion within Academia about the academic success of non-traditional students in general, how success is understood and measured, should be promoted.

The implementation of the previous mentioned recommendations would probably have a small effect on HEI' budgets, while greatly contributing to MS23' success – and thus, ultimately, also on how HEI's role(s) is(are) perceived by society.

Acknowledgments

References

Ambrósio, S., Araújo e Sá, M.H., & Simões, A.R. (2013). A biographical approach to plurilingual repertoires of non-traditional students: an obstacle or an aid to navigation in Higher Education? In Doutor. C., Gonçalves. T., & Fragoso. A., (Eds.), *Non-traditional students in Higher Education: Looking beyond (in) success and dropout* (pp. 109-118). Faro: University of Algarve.

Baxter, A., & Hatt, S. (1999). Old and young mature students: painting a fuller picture. *Journal of Access and Credit Studies*, *1*(2), 137-148.

Baptista, A. V. (2011). Non-Traditional Adult Students: Reflecting About their Characteristics and Possible Implications for Higher Education. Procedia - Social and Behavioral Sciences, 30, 752–756. Bean, J. P., & Metzner, B. S. (1985). A conceptual model of mature undergraduate student attrition. *Review of Educational Research*, *55*(4), 485-540.

Burke, P. J. (2002). *Accessing education: effectively widening participation*. Stoke on Trent: Trenham Books.

Chao, E., DeRocco, E., & Flynn, M. (2007). *Adult learners in higher education: Barriers to success and strategies to improve results*. Retrieved January 17, 2013, from http://wdr.doleta.gov/research/FullText_Documents/Adult%20Learners%20in%20Higher%20Education1.pdfem Setembro de 2007

Correia, A., & Sarmento, A. (2004). *LIHE. National Context for Adults in Higher Education, in Portugal.* Lisboa: ISEGI.

Correia, A., & Mesquita, A. (2006). Novos públicos no ensino superior - *Desafios da sociedade do conhecimento*. Lisboa: Sílabo.

Correia, A., & Mesquita, A. (2007). Learning in Higher Education: strategies to overcome challenges faced by adult students – lessons drawn from two case studies in Portugal. *International Journal of Information and Communication Technology Education*, *3*(2), 1-14.

Crawford, D. L. (2004). *The Role of Aging in Adult Learning: Implications for Instructors in Higher Education.* Retrieved March 12, 2013, from http://education.jhu.edu/PD/newhorizons/lifelonglearning/higher-education/implications/

CSWD (2014). European Commission, Employment, Social Affairs & Inclusion, Commission Staff Working Document. Retrieved Febuary 15, 2016, from http://ec.europa.eu/social/main.jsp?catId=1094&langId=en#_ftnref2.

Davies, P., & Williams, J. (2001). For me or not for me? Fragility and risk immature students' decision making. *Higher Education Quarterly*, *55*, 185-203.

European Commission/EACEA/Eurydice (2014). *Modernisation of Higher Education in Europe: Access, Retention and Employability 2014. Eurydice Report.* Luxembourg: Publications Office of the European Union.

European Commission (2015). *Key areas: comparing Member States' performances*. Retrieved Febuary 15, 2016, from http://ec.europa.eu/europe2020/making-it-happen/keyareas/index_en.htm

European Parliament and Council (2006). *The Lifelong Learning Programme 2007-2013: education and training opportunities for all.* Retrieved June 1, 2012, from http://ec.europa.eu/education/lifelong-learning-programme/doc78_en.htm

Field, J., Merrill, B., & West, L. (2012). Life history approaches to access and retention of nontraditional students in higher education: A cross-European approach. *European Journal for Research on the Education and Learning of Adults*, *3*(1), 77-89.

Fragoso, A., & Guimarães, P. (2010). Is there still a place for social emancipation in public policies? *European Journal for Research on the Education and Learning of Adults*, *1*(1-2), 17-31.

Fragoso, A., Gonçalves, T., Ribeiro, C. M., Monteiro, R., Quintas, H., Bago, J., Fonseca, H. M. A. C., & Santos, L. (2013). Mature students' transition processes to higher education: Challenging traditional concepts?, Studies in the Education of Adults, 45, 67-81.Garratt, D. (2011). Reflections on learning: widening capability and the student experience. *Cambridge Journal of Education*, *41*(2), 211-225.

Görason, B., Maharajh, R., & Schmoch, U. (2009). New activities of universities in transfer and extension: multiple requirements and manifold solutions. *Science and Public Policy*, *36*(2), 157-164.

Greenbaum, T. L. (2000). *Moderating Focus Groups: A Practical Guide for Group Facilitation*. Thousand Oaks: SAGE.

Higher Education Academy [HEA] (2008). *National Plan for Equity of Access to Higher Education*. Dublin: HEA.

Jarvis, P. (1995). *Adult and Continuing Education: Theory and Practice*. London: Routledge.

Kasworm, C. (2003). Setting the stage: adults in Higher Education. *New Directions For Students Services*, *102*(3), 3-34.

Kasworm, C. (2008). Emotional Challenges of Adult Learners in Higher Education. *New Directions for Adult and Continuing Education*, *120*(4), 27-34.

Kelly, M. (2005). The effects of increasing numbers of mature students on the pedagogical practices of lecturers in the institutes of technology. *Irish Educational Studies*, *24*(2-3), 207-221.

Leuven Communiqué (2009). *The Bologna Process 2020 - The European Higher Education Area in the new decade*. Retrieved July 12, 2013, from http://www.ond.vlaanderen.be/hogeronderwijs/bologna/conference/documents/leuven_louvain-la-neuve_communiqu%C3%A9_april_2009.pdf

Longworth, N., & Davies, W. K. (1996). *Lifelong Learning. New vision, new implications, new roles for people, organizations, nations and communities in 21st century*. London: Kogan Page.

National Access Office [NAO] (2007). *Annual Report 2006 and Outline Plans 2007*. Dublin: National Office for Equity of Access to Higher Education.

Nicoll, K., & Olesen, H. S. (2013). Editorial: What's new in a new competence regime? *European Journal for Research on the Education and Learning of Adults*, *4*(2), 103-109.

Oliveira, A. L. (2007). Quem são e como são eles? O caso dos adultos no ensino superior. *Revista Portuguesa de Pedagogia*, *41*(3), 43-76.

Roberts, S. (2011). Traditional practice for non-traditional students? Examining the role of pedagogy in higher education retention. *Journal of Further and Higher Education*, *35*(2), 183-199.

Rogers, A. (2002). *Teaching adults*. Buckingham: Open University Press.

Ross-Gordon, J. M. (2003). Adult Learners in the Classroom. *New Directions for Student Services*, *102*, 43-52.

Schuetze, H., & Slowey, M. (Eds.) (2000). *Higher Education and Lifelong Learners: International Perspectives on Change*. London: Routledge/Falmer.

Soeiro, A. (2009). Third Mission of Universities and Engineering. In Pia Lappalainen (Ed.), *European Continuing Engineering Education: Conceptualizing the Lessons Learned* (pp. 53-60). Brussels: SEFI.

Stake, R. E. (2000). Qualitative case studies. In N. K. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (pp. 435-454). Thousand Oaks: Sage.

Tavares, J., & Huet, I. (2001). Sucesso académico no ensino superior: um olhar sobre o professor universitário. In Pedagogia na universidade, Lisboa, Universidade Técnica de Lisboa, 149-160. Thomas, L. (2002). Student retention in higher education: the role of institutional habitus. *Journal of Educational Policy*, *17*(4), 423-442.

Thomas, L., & Quinn, J. (2007). *First generation entry into higher education: an International Study*. Maidenhead: SRHE.

Wessa, P. (2012). *Free Statistics Software, Office for Research Development and Education, version 1.1.23-r7*. Retrieved June 1, 2012, from http://www.wessa.net/

Wyatt, L. (2011). Nontraditional student engagement: increasing adult student success and retention. *The Journal of Continuing Higher Education*, *59*, 10-20.

Yin, R. K. (2009). *Case Study Research: Design and Methods* (4th edition). Thousand Oaks: Sage Publications – Applied Social Research Methods Series.

Yorke, M., & Thomas, L. (2003). Improving the Retention of Students from Lower Socio-economic Groups. *Journal of Higher Education Policy and Management*, *25*, 63-74.