

BUILDING A KNOWLEDGE AND LEARNING SOCIETY IN PORTUGAL - ADULT STUDENTS IN TECHNOLOGICAL SCHOOLS AND HIGHER EDUCATION INSTITUTIONS*

*Ana Maria Ramalho Correia^{1,2}, Dulce Magalhães de Sá¹, Ana
Cristina Costa¹, Anabela Sarmiento³*

*¹Universidade Nova de Lisboa, Portugal
{acorreia; dulce; ccosta} @ isegi.unl.pt*

*²INETI – Instituto Nacional de Engenharia, Tecnologia e
Inovação, I. P., Portugal*

*³Instituto Superior de Contabilidade e Administração do Porto,
Portugal*

and

*Centro Algoritmi (Universidade do Minho), Portugal
sarmiento @ iscap.ipp.pt*

Nº of Words: 5830

1. Introduction

Lifelong learning (LLL) has received increasing attention in recent years. It implies that learning should take place at all stages of the “life cycle and it should be life-wide, that is embedded in all life contexts from the school to the work place, the home and the community” (Green, 2002:613). The ‘learning society’, is the vision of a society where there are recognized opportunities for learning for every person, wherever they are and however old they happen to be. Globalization and the rise of new information technologies are some of the driving forces that

* Chapter for the book: Merrill, Barbara (ed.). (2008). *Learning to Change? The Role of Identity and Learning Careers in Adult Education*. Hamburg: Peter Lang Publishers. (forthcoming)

cause depreciation of specialised competences. This happens very quickly in terms of economic value; consequently, workers of all skills levels, during their working life, must have the opportunity to update “their technical skills and enhance general skills to keep pace with continuous technological change and new job requirements” (Fahr, 2005:75). It is in this context that LLL tops the policy agenda of international bodies, national governments and non-governmental organizations, in the field of education and training, to justify the need for LLL opportunities for the population as they face contemporary employability challenges. It is in this context that the requirement and interest to analyse the behaviour patterns of adult learners has developed over the last few years.

When the biographies of adult students are studied they reveal uncertainty and sometimes a lack of confidence concerning their potential. However, some of them (the students) have developed approaches to deal with these difficulties and have become independent (autonomous) learners. This situation may be related to the pathways chosen during their lifetime. As a consequence, we may have different identities emerging from different institutions. Is this choice dependent on how they lived before? And has this choice affected the way they learn and develop their autonomy and independence? Are teachers and tutors prepared to address these changes?

This chapter introduces a case study of adult students in Portugal. It was developed by the Portuguese partner of the PRILHE (Promoting Reflective Independent Learning in HE) project consortium. This was a project funded by the European Commission Socrates Adult Education Programme (113869-CP-1-2004-1-UK-GRUNDTVIG-G1PP). In Portugal, adults may choose Higher Education Institutions¹ (HEI) or Technological Schools (TS) to pursue their education. The case study shows that there are similarities and differences between students from TS and Universities, mostly related with the approach students

¹ In Portugal, Higher Education comprises university and polytechnic education, both public and private, all with different aims, programmes and characteristics (Portugal, 2005). The term Universities is used in this chapter to refer to any of these.

use to learn and the way teachers take into consideration the later. It seems that TS have “best practices” that should be shared with the other institutions.

The chapter is organised as follows: first, we contextualize LLL development as an element within the political objective of creation of the knowledge economy, especially in the context of the European Union Lisbon Agenda, linking education with employment. The different access routes non-traditional adult students can take to access Universities in the Portuguese higher education (HE) system are then briefly described. The PRILHE project, its main objectives, the participant institutions in the consortium, and the methodology used to gather and analyse data are briefly explained. Finally, the results of the Portuguese case within this project are presented and discussed.

2. The knowledge economy as a political objective: linking education with employment

The efforts to actively move towards the knowledge economy in Europe started back in 2000 with the Lisbon European Council putting forward the vision for Europe in the 21st century. The defining statement of the EU policy-makers’ setting of the goal for the EU economy to,

‘ . . . become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion . . . ’ (Lisbon European Council, 2000),

highlighted the link between education and employment, between skills and prosperity and identified the successful exploitation of information and communication technology (ICT) as the means to achieving economic growth and full employment (Zantout, 2007:134). A well educated and well-trained population is essential for social and economic success of

countries and individuals and for the expansion of scientific and cultural knowledge. It is in this context that the European Union,

faced with the problem of [...] the rapid changing market demands on skills sets of human-capital and concurrently the problem of maintaining the employability of its ageing populations over their whole lifespan, expresses the political will to utilize lifelong learning in order to overcome these challenges” (Tuschling & Engemann, 2006:454).

Lisbon’s ambitious goal was that

‘... the number of 18 to 24 year olds with only lower-secondary level education, who are not in further education and training, should be halved by 2010’ (Zantout, 2007:136).

This illustrates how, in the European Union, LLL is occupying a prominent position “within all attempts to change and connect the educational framework of Europe” (Tuschling & Engemann, 2006:453). So the quest for finding novel solutions to resolve the skills shortage problem and achieve the targets is still ongoing. In Portugal for example the initiative “*Novas Oportunidades*” (Portugal, ME, 2006) is offering, since 2007, new routes for adults, recognising their prior learning, acquired via informal and non-formal ways. In parallel, there is a new drive - via promotion of LLL and acquisition of IT skills - to increase the number of adults in the country who have completed secondary education; hopefully, this will increase student numbers entering higher education (HE).

However, as these are just very recent developments, this chapter concentrates on routes for adults to access higher education existing up until 2006, as explained in the following section.

3. Access routes for adult students

Adult access to HE in Portugal has been recently revised (Decree-Law n° 64/2006, of 21st March, Portugal, 2006a) which

regulates access of adults students who have not completed the traditional route of studies. However, up until the year 2006, adult access was through one of the three possible routes (Correia & Mesquita, 2006: 214-226):

- Via a traditional route - adults followed all the stages of the education system. In the situation where circumstances may have dictated an interruption of their normal education route and they decided to return, they re-entered the system at an age greater than the norm but progressed through all the steps. This was the route which the majority of the adult population took, while attending HE, in Portugal.
- Via a special route previously designated (until the year 2005/2006) by *Exame Extraordinário de Acesso ao Ensino Superior* – in this case, the assessment of candidates capabilities to access HE was the exclusive responsibility of the HEI; the candidate selection was made according to what each HEI considered more appropriate to each course and to each candidate, through the evaluation of his/her professional curriculum and through theoretical and practical examinations (*provas teóricas e práticas*) to evaluate the competences considered fundamental for the course selected by the candidate.
- Via attendance at *Cursos de Especialização Tecnológica* (CET)² – this attendance was undertaken under the auspices of an agreement, or protocol, with at least one HEI. These protocols - agreed between the provider of CET and HEI - stated the programmes of study that candidates, who finish a CET, can undertake, as well as establishing the conditions for recognition of training for advanced entry, within those HE programmes without the need to sit the National HE Access examination.

² *Cursos de Especialização Tecnológica* (Technological Specialization Courses) are post secondary courses, non university education, Level 4 of the EU (Decree-Law n° 88/2006, of 23rd May, art n° 3, Portugal, 2006b).

These were the possible ways an adult could choose to (re)enter HE in Portugal, up until the year 2006. Although there seems to be a number of different possibilities for adults to pursue a higher level of education, what the statistics say is that the number of adults (re)entering HE was very low (Correia & Mesquita, 2006:216).

While Europe is trying to prepare its Human Resources to be competitive and to develop the necessary skills and competences, the results vary across the Continent. It is in this context that the PRILHE project, described in the next sections, appears³.

4. The PRILHE (Promoting Reflective Independent Learning in HE) project – a brief introduction

As a consequence of the policy push for LLL – at national government, European Commission (European..., 2006) and Bologna Process (Bologna..., 2007; Eurydice, 2007; European... 2007) levels – more adults will, hopefully, take part in HE. Adults bring with them a wide range of life experiences to the learning process. The use of these experiences, in the HE curriculum, can assist academic learning and enable adult students to become independent (autonomous) and reflective learners. It is also recognized that to study throughout life requires the development of some additional skills and competences. Taking this into consideration, the project PRILHE (Promoting Reflective Independent Learning in HE) funded by the European Commission Socrates Adult Education Programme had as its main objective, “to identify the learning processes which enable adult students in HE to become independent and reflective learners”. The overall aim was to identify models of good practice in HEI to share across Europe, in order to improve policy and teaching practices in this field. The project was developed by a consortium of European HE organizations, in

³ PRILHE project Webpage, viewed in November 2007, <http://www.pcb.ub.es/crea/proyectos/prilhe/project.htm>

seven countries – namely, the Centre for Lifelong Learning, United Kingdom (coordinator); ISEGI, Universidade Nova de Lisboa, Portugal; Centre for Extension Studies, University of Turku, Finland; Georg August Universität Göttingen, Germany; The University of Lower Silesia, Poland; CREA, University of Barcelona, Spain; Department of Education, University of Stockholm, Sweden.

Within this research, both quantitative and qualitative methods were used to determine how students organise their studies and to discover their learning experiences.

4.1 Portuguese case study

In this chapter we present the Portuguese results, in particular the learning experiences in the Technological Schools (TS) and in the HEI (Polytechnic Institutes and Universities).

4.1.1 Methodology

In this section we explain the methodology used to select the target as well as the consideration given to the choice of the sample. Afterwards we present the procedures used to select and analyse data.

By acknowledging the need for assessing the learning processes of adult students, the study aimed to identify possible differences between their learning experiences in the TS and in the HEI.

Therefore, the main objective was to verify if students organise their studies similarly, when they enrol in a TS or when they enrol in a HEI.

Within this scope, the study focused on eight important topics, which the literature considers key factors in the learning process, helping or preventing the student to become more autonomous and independent:

- a) Role of work/life experience in the learning process
- b) Individual organization of learning
- c) Reflection of contents

- d) Framing of the learning process
- e) Dialogue in the learning process
- f) Learning motivation
- g) Learning approach
- h) Instructions and space for individual organization

4.1.2 Target population and sample

The adult student is considered to be a person over 25⁴ years old who left school with few or no qualifications, who has been out of the educational system for a long time, has no previous higher education experience, and comes from a disadvantaged group (one or more of these conditions may apply; Bourgeois *et al.*, 1999).

In Portugal, the numbers of students, fitting this description, have been much reduced (in 2005 only 3776 adults applied to enter to HE and only 901 have been admitted). Knowing that the number of traditional students who enrolled for the first time in HE in the year of 2005 was 86 000, one can see that the number of adult students represents around 1% of the total number of students in HE (Correia & Mesquita, 2006:216).

As outlined above, to access HE in Portugal students can choose to enrol in a TS, to obtain a CET which is a certificate of level 4 (more practical courses) then progress to a HEI in the terms described above or to enrol in a HEI which offers courses of level 5. Taking this into consideration, the target population for this exploratory study comprised students enrolled in six TS and in six HEI.

4.1.3 Data collection and processing

A Web-based system was developed to collect the data; this facilitated the compilation and analysis of data, and a sample of 149 validated questionnaires was obtained (48% from students enrolled in TS, and 52% in HEI).

⁴ In Portugal, it became 23 years of age, according to the Decree-Law n° 64/2006 (Portugal, 2006a)

In order to motivate the students and thus increase the rate of questionnaire return, presentations of the project were made in some institutions (both TS and HEI). The information provided also aimed to get unbiased answers. Following each presentation students were asked to fill the questionnaire online as soon as possible.

4.1.4 Questionnaire and analysis framework

The questionnaire was divided into several sections. A first set of questions aimed to collect students' personal information such as socio-demographic characteristics. The second set of questions focused on the eight categories established in the study design. Although not explicitly organised and ordered by topics, for each category some statements were prepared; students were asked to classify each one according to a 7 point Likert scale, ranging from "totally agree" to "totally disagree". Failure to answer was also noted.

The eight categories that have impact / importance in the learning process are as previously listed and their descriptions are detailed as follows:

1. Role of work/life experience in the learning process – Work experience means specialized knowledge (related to the profession) and competences (e.g. talent for organization, ability to be critical, team spirit...). It was necessary to establish the role of the above-mentioned work experience in the learning process. The statements included for this category are the following:
 - *"My work/life experience doesn't support my learning in higher education"*
 - *"I am learning from the work/life experience of my fellow students"*
 - *"Lecturers value my work/life experience"*
 - *"My previous work/ life experience affects my current learning"*

2. Individual organization of learning – On the one hand one might say that learning is an individual issue; on the other one might have a clear idea of how learning should be undertaken. The point of view of the student was the aspect of relevance. The statements included here are the following:
 - *“I have changed my approach to learning since I came to higher education”*
 - *“The way I learn is taken account of by lecturers”*
 - *“I am unsure how lecturers expect me to learn”*
 - *“I have a clear idea how I learn”*

3. Reflection of contents – The statements reflect the importance of sharing of opinions and comments from lecturers regarding their performance and participation in critical debates. The statements included here are the following:
 - *“The exchange of different views is important to me”*
 - *“In general, lecturers expect me to reproduce what I am taught”*
 - *“Lecturers encourage critical thinking”*
 - *“I like to engage in critical discussions in informal situations”*
 - *“I like to engage in critical discussions in seminars, etc.”*

4. Framing of the learning process – The statements deal with contexts of learning. To what extent is learning influenced by prior life experience or by specific learning situations? This category comprises the following statements:
 - *“My background (personal, social, work, etc.) plays an important role in my learning”*
 - *“I can’t separate my feelings from my learning”*
 - *“My life experience prevents me from opening up towards new knowledge”*
 - *“My learning is affected by the situation in which I learn”*

5. Dialogue in the learning process – The statements deal with the relevance of communication with other people during learning; they included the following:
 - *“I prefer to work in groups”*
 - *“I learn best on my own”*
 - *“My peers are useful to my learning”*
 - *“I learn best through interaction with others”*

6. Learning motivation – Here, it was asked which motives and expectations caused the student to take up his / her studies and how they influence their learning process. This category comprises the following statements:
 - *“Sometimes I don’t know why I am taking this study”*
 - *“The expectations of others towards me to be a successful learner have a great influence on me”*
 - *“I am an organized learner”*
 - *“I am studying because I want to progress in my career”*

7. Learning approach – Everybody develops individual approaches to learning in the course of his/her learning life. Here, the personal way of learning, as well as the aims pursued with it, are the aspects under investigation. This category comprises the following statements:
 - *“Learning is for me quite easy”*
 - *“Learning must have a practical outcome”*
 - *“I am an experimental learner”*
 - *“I am rather cautious when I begin something new”*
 - *“I also learn for the sake of the learning itself”*

8. Instructions and space for individual organization – For some people it is helpful to get clear instructions on how to organize their learning process; while others need space to proceed individually. In the following, the learning conditions the student prefers are the aspects being researched, using the following statements:
 - *“In my learning I definitely need support”*
 - *“All strict and rigid instructions disturb my learning”*

- “*Without clear instructions learning is quite difficult for me*”
- “*I learn best when I organize my learning process on my own*”.

In the analysis stage, for each category, students' opinions from the two sub-samples (students enrolled in TS and in HEI) were compared. The average response rate to each question was above 97%.

5. RESULTS AND DISCUSSION

The main goal is to describe the students of the two sub-samples and to compare their learning experiences through a detailed analysis focused on the eight *knowledge and learning categories* previously described.

Determining the students' learning processes, provided an indication of how their life experiences might be used to assist academic learning and enable adult students to become more independent (autonomous) and reflective learners. Moreover, this approach was also expected to contribute to the development of guidelines / recommendations to increase the success of adult students in HE.

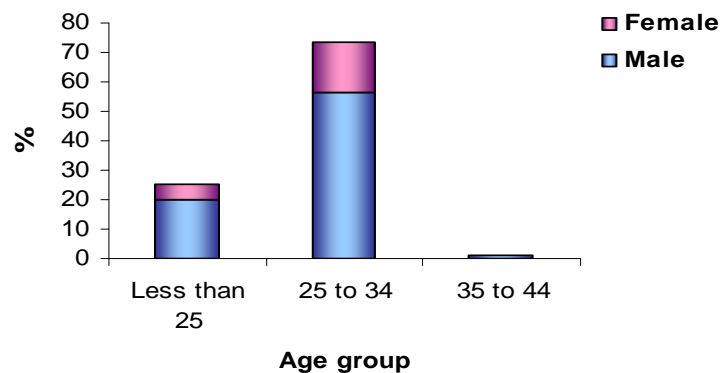
Characterization of the students

Technological Schools' students

The majority of the TS' students is male (77%) and the more frequent age group is from 25 to 34 years of age (73%).

Figure 1 shows the distribution of male and female students by age group. Adult students represent approximately 75% of the sample of TS students.

Figure 1 – Distribution of female and male students from TS by group age



Approximately 76% of the students have been out of the educational system for less than 5 years, 19% of them discontinued their studies for 5 to 10 years, and almost 5% did not engage in the educational system for more than 10 years. Considering just the adult students (Figure 2), approximately 31% of them have been out of the educational system for more than 5 years. However, approximately 43% of them have participated in some kind of short course since their studies have been discontinued, whereas this is equal to 28% among the students with less than 25 years of age (Figure 3).

Figure 2 – Number of years that the adult students from TS have been out of the educational system (%)

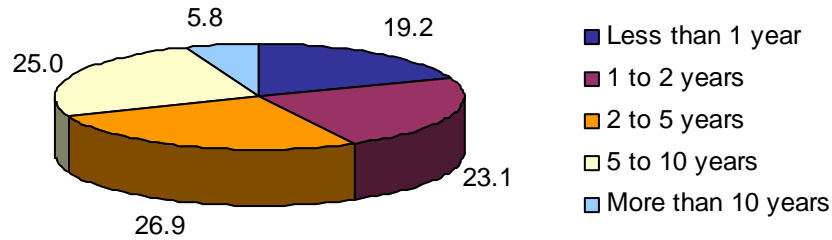
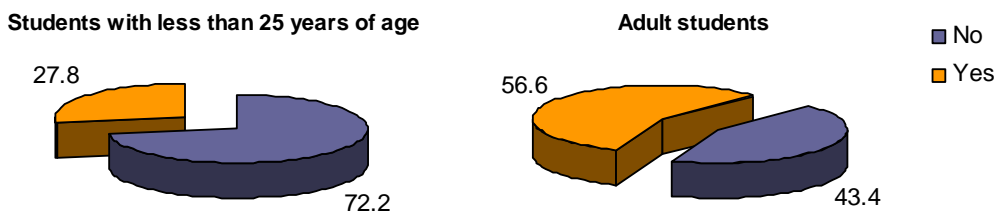


Figure 3 – Distribution of students from TS that participated, or not, in some kind of short course since their studies have been discontinued (%)

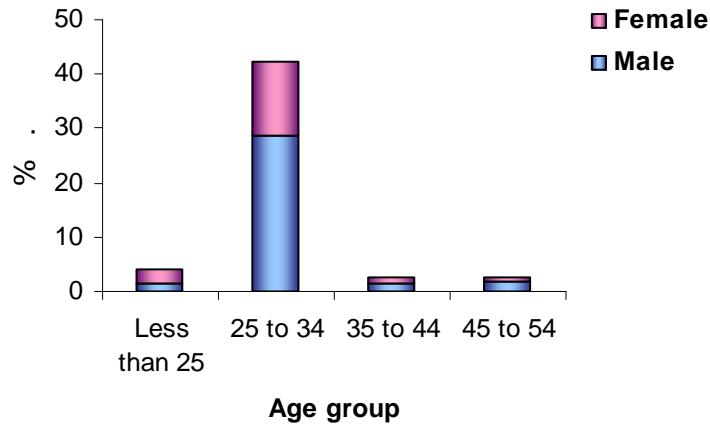


Approximately 85% of the adult students are employed or have an occupation, whereas this percentage is equal to 79 for students with less than 25 years of age.

Higher Education Institutions' students

The majority of the HE students is male (65%) and the more frequent age group is from 25 to 34 years of age (82%). Figure 4 shows the distribution of male and female students by age group. Adult students represent approximately 92% of the sample of HE students.

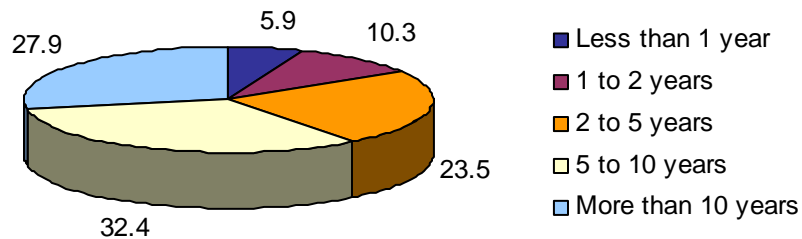
Figure 4 – Distribution of female and male students from HE by group age



Only 18% of the HE students have been out of the educational system for less than 2 years, 24% of them discontinued their studies for 2 to 5 years, and 58% did not engage in the educational system for more than 5 years. Considering just the adult students (

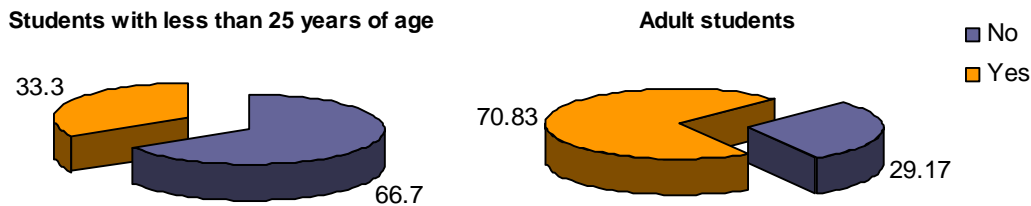
Figure 5), approximately 84% of them have been out of the educational system for more than 2 years.

Figure 5 – Number of years that the adult students from HE have been out of the educational system (%)



Approximately 68% of the HE students have participated in some kind of short course since their studies have been discontinued, whereas this percentage is equal to 71 among the students with less than 25 years of age (Figure 6).

Figure 6 – Distribution of students from HE that participated, or not, in some kind of short course since their studies have been discontinued (%)



Most of the adult students (67%) have a full time job. Approximately 14% of the adult students enrolled in HE are unemployed, whereas this percentage decreases to zero for students with less than 25 years of age.

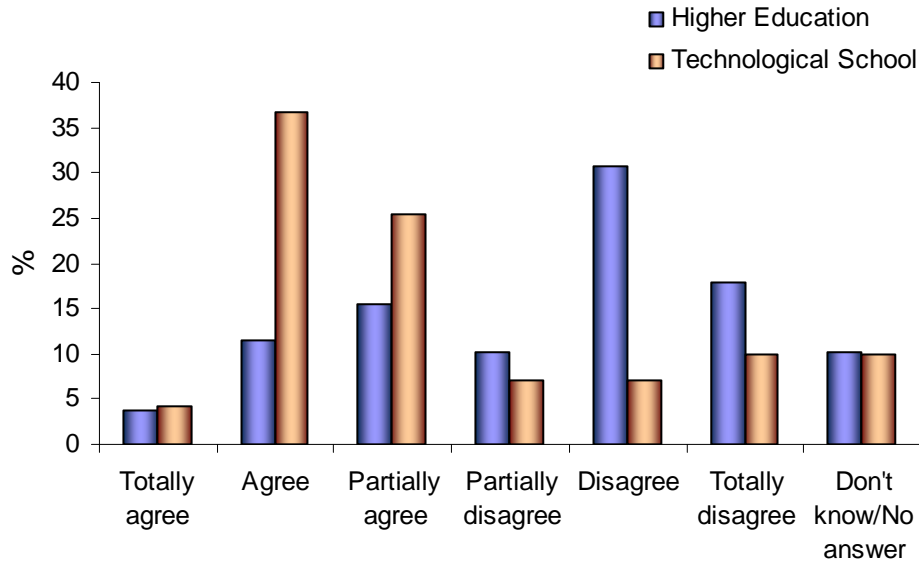
5.1 Role of work/life experience in the learning process

Both students enrolled in TS and in HE agree that their work/life experience supports and affects their learning. Another common opinion of the two groups of students is that the work/life experience of their fellow students is important in their own learning process. However, their opinions differ on the value that lecturers give to their life/professional experience.

Most TS students agree that their work/life experience supports (72%) and affects (79%) their learning. Likewise, many HE students agree that their work/life experience is important (82%) and influences (85%) the way they learn. Approximately 79% of both the TS and the HEI students consider that they can learn from the professional experience of their colleagues.

Regarding the students' opinions on the statement '*Lecturers value my work/life experience*', there is some dissimilarity between TS and HE answers (Figure 7). While in HE only 31% of the students agree with the statement, in TS this percentage increases to 66%.

Figure 7 – Opinions on the statement '*Lecturers value my work/life experience*'



Most of the students enrolled in TS and in HE agree that they have a clear idea on how they learn (86% of TS students, and 62% of HE students), but changed their approach to learning since they came to higher education (96% of TS students, and 88% of HE students).

For the other components of this category, related with the students' perception on how lecturers recognize the way they learn, there is a strong difference (Figure 8 and Figure 9).

Figure 8 – Opinions on the statement ‘*The way I learn is taken account of by lecturers*’

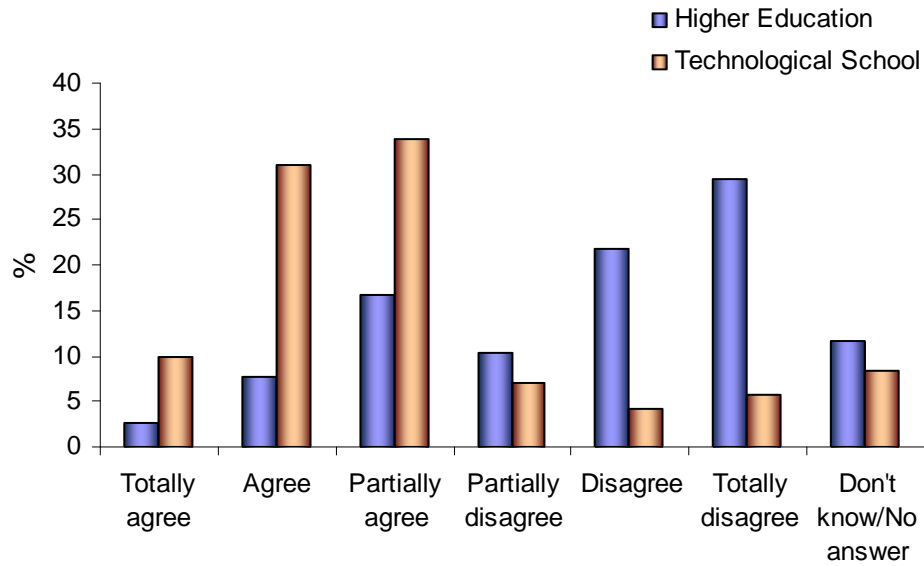
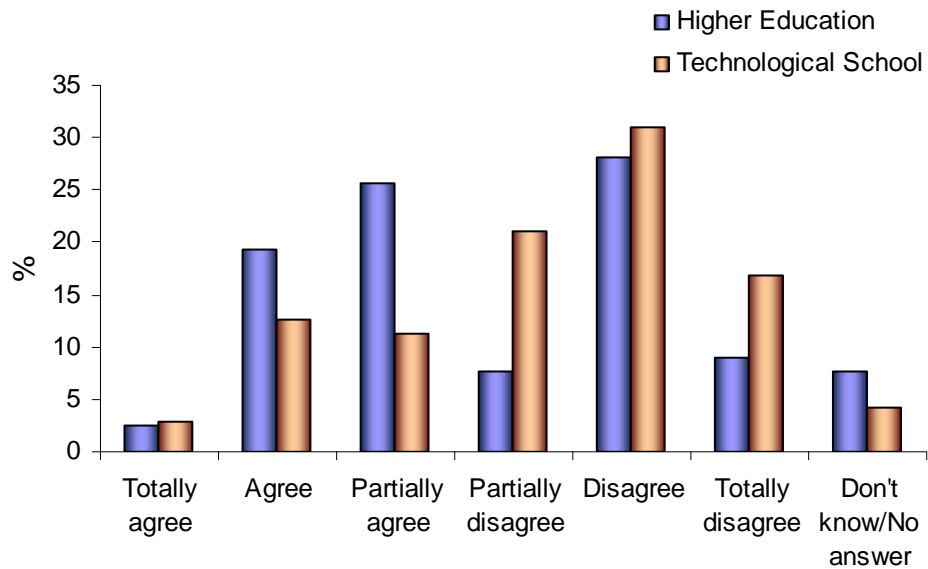


Figure 9 – Opinions on the statement ‘*I am unsure how lecturers expect me to learn*’



After entering HE, more students from TS (75% against only 27% from HE), consider that lecturers take into consideration the way they learn. In a way, it might support the results of the statement '*I am unsure how lecturers expect me to learn*': the number of students who feel insecure about the way lecturers expect them to learn is higher in HE (47% against 27% for TS).

5.3 Reflection of contents

Both students enrolled in TS and in HE agree that an important contribution to their learning is the sharing of opinions and different views (approx. 96%) and comments from lecturers regarding their performance and participation in critical debates.

In fact, students like to engage in critical discussions, not only in informal situations (76% of TS students, and 86% of HE students) but also in seminars and other situations where the debate is promoted (79% of TS students, and 64% of HE students). Moreover, the great majority of students consider that lecturers encourage the development of critical thinking (96% of TS students, and 85% of HE students).

Nevertheless, most of the students enrolled in TS (83%) and in HE (80%) have the perception that lecturers expect them to reproduce what they are taught.

5.4 Framing of the learning process

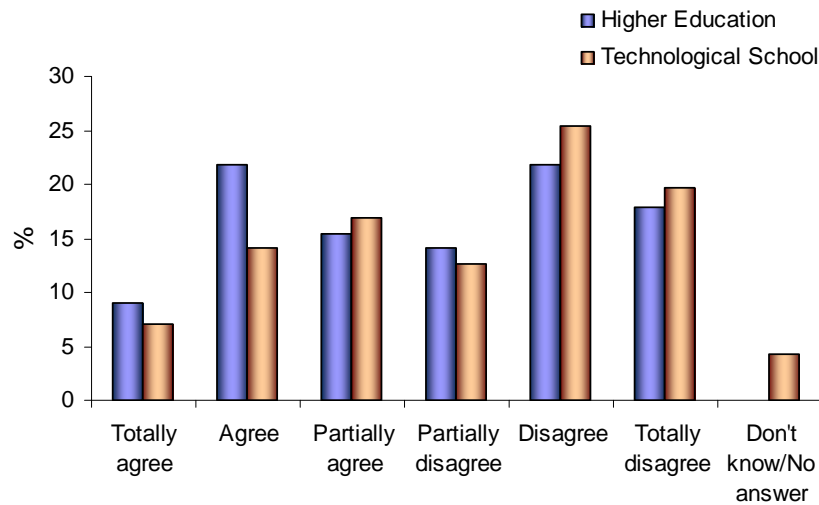
There is almost total agreement in both HE and TS students (approx. 96% in both groups) concerning the importance of background (personal, social and professional) in learning, as well as in the influence of the contextualization of learning, in the way they learn (97% of TS students, and 87% of HE students).

On the other hand, both HE and TS students (97% in both groups) show almost a total disagreement concerning the role

that life experiences play when preventing the acceptance of new knowledge.

However, there is not a consensus in the students' opinions on what degree their feelings are connected with their learning (Figure 10). Only 38% of TS students and 46% of HE consider that they do not have the ability to separate their feelings from learning.

Figure 10 – Opinions on the statement ‘*I can’t separate my feelings from my learning*’



5.5 Dialogue in the learning process

For this category, the similarity between HE and TS students' opinions is mostly present for statements indicating the degree of belief that colleagues are useful in the learning process (approx. 93% in both groups), and that interaction with others is beneficial (approx. 89% in both groups).

The students from TS prefer group work (approx. 90% against 76% from HE). On the other hand, 47% students from HE feel that they learn better alone, against 30% from students of TS.

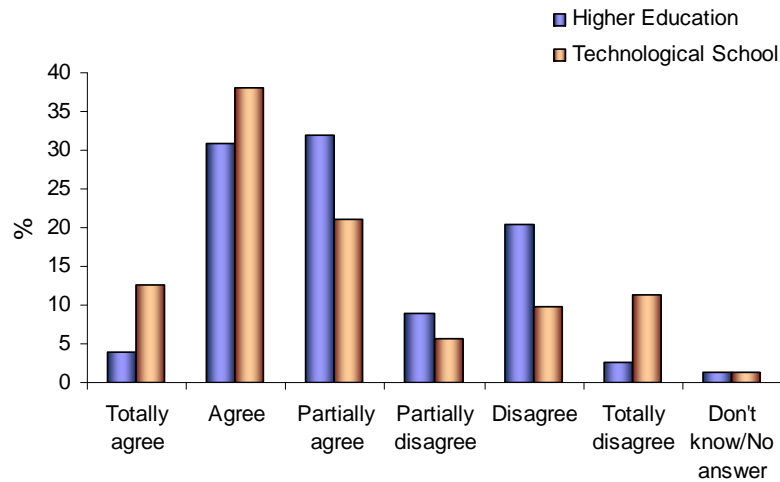
5.6 Learning motivation

There is an almost total agreement of students' opinions from HE and TS (96% in both groups) concerning the fact that the purpose of studying is to progress in their professional career. Similarities are also present in the conviction that students are organized learners (approx. 80% of the students from both HE and TS).

On the other hand, the major difference in this category concerns the doubt "*why am I attending this program of study*", doubt which affects 42% of the students from HE, against 31% of the students from TS.

Most of the students, from both groups, agree that others' expectations towards them on becoming successful learners have a great influence (72% of TS students, and 67% of HE students). However, the degree of this influence is somehow different between both groups (Figure 11).

Figure 11 – Opinions on the statement ‘*The expectations of others towards me to be a successful learner have a great influence on me*’



5.7 Learning approach

For this category, the similarity between HE and TS students’ opinions is mostly present for statements concerning not only the need for experimentation and for understanding the practical applications of what they learn, but also the pleasure of learning as one of the reasons why the student learns.

Approximately 72% of the students, from both HE and TS, are experimental learners, and 59% state that learning must have a practical outcome. Almost all students (93% of TS students, and 97% of HE students) learn for the sake of the learning itself.

In TS, 63% of the students feel that learning is easy for them, and only 56% of the HE students find it easy. Furthermore, 83% of the students from TS consider themselves very cautious when they start something new, while in HE 71% consider themselves to be so.

5.8 Instructions and space for individual organization

The similarity between HE and TS students' opinions occurs in all statements from this category.

The students from HE show themselves as a little more convinced of their need for learning support (77% against 72% from TS), although they also prefer to organize their own learning processes (92% against 91% from TS).

On the other hand, the students from TS are slightly more sensible to situations of rigid or restrictive instructions, in the sense that they disturb their learning (61% against 55% from HE), and to the absence of clear instructions (77% feel difficult to learn without clear instructions, against 69% from HE).

6. Conclusion

This study attempts to establish if there were any significant differences between the characteristics of students from HEI and TS, in Portugal. According to the results, there are both similarities and differences between them.

The level of uncertainty regarding the reasons that lead the student to enter a particular study program is higher for those in HEI. There were more students saying that they didn't know why they were attending that program of study. It may be that because, for mature students in Portugal, there are study programs which are easier to apply for (social sciences, humanities, management) than others (engineering, medicine). Furthermore, in terms of culture one can feel a social pressure coercing students to attend a course in HE. This probably means that the candidates try to find, not the program of study that they really want, but the one which seems to be easier and can be completed in few years.

Students from TS said that they are more cautious when they start something new. Students of HE seem to be more carefree; the reasons for this need further investigation but it could be that HE students are more likely to be seeking a new career path.

As for the reflection on content, more students from TS agree that classes contribute to the development of critical thinking. This may be due to the fact that HE classes have a higher number of students and so the opportunities to have discussions are less. Students from HE also say that they prefer discussions and critical debates in informal situations, while students from TS prefer those discussions in seminar. It is thought that the reason given for the development of critical thinking also applies here – the size of the classes prevent discussions and so HE students prefer informal situations for debates, instead of using the environment of the class.

As for dialogue in the learning process, students from TS prefer group work while those from HE feel that they learn better when they study alone. A reason for this difference may also lie in the number of students in the classes – usually it is more difficult to work in groups with big classes and so the lecturer may avoid those situations, preferring students to work alone.

Regarding life and work experience, students from TS believe that lecturers give some value to their previous experience. Again, it is felt that this may happen because of the larger classes in HE; it can be difficult to gauge what the student already knows and use this experience in the curriculum.

Concerning the individual organization, students from TS said that they have changed their approach to the way they learn. In HE the approach remained the same, probably the same one that the student used in secondary school, not having had the opportunity to develop a new one. Students in TS also say that lecturers take into consideration the way they learn; students from HE feel that they don't know the way lecturers expect them to learn. This may be due to clear objectives not being adequately established at the beginning of the session / study program.

To sum up, one can see that there are some similarities between HE and TS but that there are also some important differences. These have been identified and some possible explanations for them were provided. Of course, those explanations are speculative but are well grounded in our

experience as researchers and lecturers in HE for some years. The next step in this research could be to assess the situation in HE and TS, after application of the PRILHE proposals. It would be interesting to analyse the differences in HE and TS take up. The results could further help to develop guidelines / recommendations to increase the success of mature students.

Studies like the one described in this chapter are extremely relevant to the urgent need to open up opportunities for adult students to obtain higher qualifications, in Portugal, in order to overcome the country's shortage of skilled workers and enhance its competitiveness in globalised markets (OECD, 2007; Euridyce 2007; European Commission, 2007).

REFERENCES

Bologna Benelux 2009 Secretariat. 2007, *Bologna Process Official Website*, viewed November 2007,

<<http://www.ond.vlaanderen.be/hogeronderwijs/bologna/>>

Bourgeois, E., Duke, C., Guyot, J. L., & Merrill, B. 1999, *The adult university*. Buckingham, Society for Research into Higher Education & Open University Press, England.

Correia, A. & Mesquita, A. 2006, *Novos Públicos no Ensino Superior – desafios da sociedade do conhecimento*, Gradiva, Lisboa (portuguese language).

Correia, A. M. R., Sá, D. M. & Sarmiento, A. 2006, Web Survey System to Discover the Actual Role of Experience in Learning in Higher Education: a case study, in Brito, C. R and Ciampi, M.M. (Eds.), *New Engineering to a New World*. IEEE & Council of Researches in Education and Sciences, pp. 351-355.

European Commission 2006, *From Bergen to London – The EU Contribution*. Commission Progress Report, CEC-Directorate General of Education and Culture; School Education and Higher Education, Brussels, 24 Jan. (rev3), viewed November 2007,

<<http://europa.eu.int/comm/education/policies/educ/bologna/report06.pdf>>.

European Commission 2007, *Key data on higher education in Europe - 2007 edition* Brussels: Eurydice and Eurostat, viewed November 2007,

<http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1073,46587259&dad=portal&schema=PORTAL&p_product_code=978-92-79-05691-8 >

Eurydice 2007, *Focus on the structure of higher education in Europe. National trends in the Bologna Process - 2006/07 Edition*, Eurydice, Brussels, viewed November 2007,

<<http://www.eurydice.org/portal/page/portal/Eurydice/PubPage?pubid=086EN&fragment=5&page=1>>.

Fahr, R. 2005, Loafing or Learning? – the demand for informal education. *European Economic Review*, vol. 49, pp. 75-98.

Green, A. 2002, The many faces of lifelong learning: recent education policy trends in Europe, *Journal of Education Policy*, vol. 17, no. 6, pp 611-626.

Lisbon European Council (23 and 24 March 2000) *Presidency Conclusions*. Council of the European Union, viewed November 2007,

<http://ue.eu.int/ueDocs/cms_Data/docs/pressData/en/ec/00100-r1.en0.htm>

OECD. 2007, *Education at a Glance*, OECD, Paris, viewed November 2007,

<http://www.oecd.org/document/30/0,3343,en_2649_39263294_39251550_1_1_1_1,00.html>

Portugal. AR. 2005, Lei nº 49/2005, de 30 de Agosto. (Segunda alteração à Lei de Bases do Sistema Educativo e primeira alteração à Lei de Bases do Financiamento do Ensino Superior). *Diário da República, I Série-A*, vol. 166, pp. 5122-5138.

Portugal. MCTES. 2006a, Decreto-Lei nº 64/2006, de 21 de Março. [Regulamenta as provas especialmente adequadas destinadas a Avaliar a Capacidade para a Frequência do Ensino Superior dos Maiores de 23 Anos, prevista no nº 5 do artigo 12º

da Lei nº 46/86, de 14 de Outubro (Lei de Bases do Sistema Educativo)]. *Diário da República, I Série*, vol. 57, pp. 2054–2056.

Portugal. MCTES. 2006b, Decreto-Lei nº 88/2006, de 23 de Março. (Regulamenta os cursos de especialização tecnológica). *Diário da República, I Série*, vol. 99, pp. 3474–3483.

Portugal. ME. 2006, *Novas Oportunidades: Aprender Compensa* – Guia de Acesso ao Secundário, Adultos, viewed November 2007,

<http://www.novasoportunidades.gov.pt/objectivos_adultos.aspx>

PRILHE project, viewed November 2007
<http://www.pcb.ub.es/crea/proyectos/prilhe/project.htm>

Tuschling, A. & Engemann, C. 2006, From Education to Lifelong Learning: the emerging regime of learning in the European Union. *Educational Philosophy and Theory*, vol. 38, no. 4, pp. 451-469.

Zantout, Hind & Dabir-Alai, Parviz 2007, 'The knowledge economy in the context of European Union policy on higher education', *Education, Knowledge and Economy*, vol. 1, no. 2, pp. 125 – 143.