LIFELONG LEARNING: CASE STUDY OF ADULT STUDENTS IN PORTUGUESE TECHNOLOGICAL SCHOOLS AND HIGHER EDUCATION INSTITUTIONS[1]

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Abstract

Adult education, especially at the tertiary level, is significant when preparing citizens to work in today's continuously evolving markets, a hallmark of the knowledge-based economies. This paper focuses on the identification of learning strategies used by Portuguese non-traditional adult students who embark on lifelong learning routes to obtain tertiary level education. The results of a case study undertaken within the project PRILHE (Promoting Reflective Independent Learning in HE) funded by the European Commission Socrates Adult Education Programme Socrates – (113869-CP-1-2004-1-UK-GRUNDTVIG-G1) are presented and discussed. It seems that there is still a long way to go before non-traditional adult students can benefit from lifelong learning opportunities,

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at tertiary level in Portugal; nevertheless the study presents evidence of some "best practices" in TS which could be shared with HEI.

Introduction

Lifelong learning (LLL) has received increasing attention in recent years. It implies that learning should take place throughout life and that it should be life-wide, embedded in all life contexts from the school to the work place, in the home and the community (Green, 2002, p. 613). The 'learning society', is the vision of a society where there are recognized opportunities to learn for every person, wherever they are and however old they may be. In the "lifelong-learning-society rhetoric, informal learning is as important as formal learning and the boundaries between the two are blurred" (*op. cit*: 613). LLL is also frequently taken to be a key to both national economic competitiveness and social cohesion (Green, 2006).

The interest in adult learners has also increased over the last few years. When we study their biographies, we realize that they reveal uncertainty and sometimes a lack of confidence concerning their potential. However, we can see that some of them have developed approaches to deal with these difficulties and have become autonomous and independent learners. This may be related to the various pathways chosen during their lifetime. In Portugal, adults may choose Higher Education Institutions (HEI) or Technological Schools (TS) to pursue their ongoing education. Is this choice dependent on previous educational identities and has this choice affected the way they learn and develop their autonomy and independence?

In this paper the different routes non-traditional adult students can take to access tertiary level, in Portugal, are introduced. Learning strategies used by these adult students are explored through the results obtained by a case study undertaken within the project PRILHE (Promoting Reflective Independent Learning in HE) funded by the European

Commission Socrates Adult Education Programme Socrates – (113869-CP-1-2004-1-UK-GRUNDTVIG-G1); these are presented and discussed. The aims and objectives together with the methodology used to gather and analyse data in PRILHE project, are briefly described. The results of the Portuguese case show that there are similarities between students from TS and HEI but also differences, mostly related with their approach to learning and the way that teachers take this into consideration. It seems that TS have "best practices" that could be shared with the other institutions.

Access Routes For Adult Students to Tertiary Level Education in Portugal

In Portugal, higher education (HE) comprises university and polytechnic education, both public and private, all with different aims, programmes and characteristics [Law nº 49/2005 (Portugal, 2005)]. Adult access to HE in the country has been altered by legislation which was approved in 2006[2]. However, the case study reported in this paper was undertaken in 2004, so was before the approval of those Decree-Laws. At the time of the research carried out for the case study reported in this paper the access of adult students to HE took place through one of three possible routes:

- Via a traditional route - adults follow all the stages of the education system. In the situation where circumstances may have dictated an interruption of their normal education route and they decide to return, they re-enter the system at an age greater than the norm but progress through all the steps. This is the route which the majority of the Adult population take, at present, while attending HE, in Portugal.

- Via a special route previously designated (until the year 2005/2006) by *Exame Extraordinário de Acesso ao Ensino Superior*[3] – in this case, the assessment of candidates capabilities to access HE is the exclusive responsibility of the HEI; the

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[2] Decree-Law nº 64/2006, which regulates access to HE of candidates above 23 years of age, within the logic of lifelong learning (mature students); Decree-Law nº 74/2006, which regulates the implementation of the new degree systems and the Decree – Law nº 88/2006, which regulates post-secondary education

[3] This was regulated by the Portaria nº 106/2002, de 1 de Fevereiro (Portugal.ME, 2002).

candidate selection is made according to what each HEI considers 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) - this attendance will be undertaken under the auspices of an agreement, or protocol, with at least one Higher Education Institution. These protocols - agreed between the provider of CET and HEI - will define the progression into Higher Education programmes, for students with a CET. These protocols state 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. This is only possible for those students that complete the CET course and have 18 months of professional experience. They get an advanced entry, without the need to sit the National HE Access examination.

These are the possible ways an adult can choose to (re)enter HE in Portugal. Although there seems to be a choice of avenues for adults to obtain a higher level of education, what the statistics say is that the number of adults (re)entering HE was very low (Correia and Mesquita, 2006:216).

PRILHE

As a consequence of the policy push for LLL – at national government, European Commission and Bologna Process levels – more adults are taking part in Higher Education (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, was devised with the following aims:

- to identify the learning processes which enable adult students in HE to become independent and reflective learners (to include study skills, self management, reflective processes and timings, learning to learn, analysing learning and teaching styles, interaction with lecturers and peers, institutional support and structures);

- to determine how this process can be better supported, in terms of materials, systems, staff, lecturers, web support, peers, family, friends; and to examine the interface between learning from experience and academic learning - the overlaps and conjunctions - and how experience may help academic learning and future learning, including in the workplace.

The overall aim was to identify models of good practice in higher education institutions to share across Europe, in order to improve policy and teaching practices in this field. The project, which took place between September 2004 and September 2006, was developed by a consortium of European HE organizations, in 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.

Methodology

The methodology used was a combination of quantitative and qualitative approaches. In the first stage, the consortium developed a questionnaire and distributed it to students and lecturers. In a second stage face-to-face interviews were carried out also with both students and lecturers. Data was also gathered through learning logs.

Questionnaire

From the literature review we identified eight categories that have impact / importance in the learning process, helping or preventing adult students to become more autonomous

and independent. For each category some statements were prepared and the students were asked to classify these according to a 7 point Likert scale, ranging from "totally agree" to "totally disagree". Failure to answer was also noted.

These 8 categories are detailed as follows:

- Role of work/life experience in the learning process – we mean here specialized knowledge (related to the profession) and competences (e.g. talent for organization, ability to be critical, team spirit…). We wanted to know the role of the above-mentioned work experience in the learning process.

- Individual organization of learning – On the one hand one might say that learning is an individual issue; on the other hand one might have a clear idea of how learning should be undertaken. Here, we were interested in the point of view of the student.

- Reflections on content – The statements reflected the importance of sharing of opinions and comments from lecturers regarding their performance and participation in critical debates.

- Framing of the learning process – The statements dealt with contexts of learning. To what extent is learning influenced by prior life experience or by specific learning situations?

- Dialogue in the learning process – The statements dealt with the relevance of communication with other people during learning.

- Learning motivation –The motives and expectations which caused the student to take up his / her studies and how they influenced their learning process were dealt with in the statements.

- Learning approach – Everybody develops individual approaches to learning in the course of his/her learning life. In this case the statements focused on the personal way of learning as well as the aims pursued with it.

• Instructions versus space for personal 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. The statements addressed in this case the learning conditions the student prefers.

Interviews

Adult students and lecturers were interviewed, using in-depth biographical interviews to elicit information about the biography of the interviewee, the learning and teaching methodologies that lecturers use with them, which ones they prefer, what kind of assessment the lecturer uses, suggestions on how to help adult students to become independent and reflective, along with other issues related to the topic. The interviews were taped, fully transcribed and then analysed.

Learning logs

Some students were also asked to complete a learning log during one semester for one of the subjects studied. These logs aimed to gather information to complement that obtained from the questionnaires and interviews, regarding students' learning strategies, the difficulties felt and approaches to overcome these.

Target-population and sample, in the Portuguese case study

The adult student is considered to be a person over 25[4] 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).

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[4] In Portugal, it became 23 years of age, according to the Decree-Law nº 64/2006.

In Portugal, the numbers of students, fitting this description, has been much reduced[5]. Furthermore, as described above, students can choose to enrol in a Technological School (TS), which gives them a certificate of level 4 (more practical courses) and then progress to a HEI, which has a protocol with the Technological school they attended or to enrol directly in a Higher Education Institution (polytechnic or university) which offers courses of level 5. Taking this into consideration for the Portuguese case study it was decided to have 2 samples: one from TS and the other from HEI. Although in the project information from lecturers was also collected - to cross check the results with those coming from the students - in this paper only the results from students are presented and discussed.

Analysis and Discussion of Results

Data presented in this section has been gathered through the different methods and tools referred to above – questionnaires, interviews and logs; whenever possible, differences between students from HEI and from TS are also presented.

Questionnaires

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

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[5] 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 and Mesquita, 2006:216)

Students from TS said that they are more cautious when they start something new. Students in HEI 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. We think 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 more formal class environment.

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, we feel that this may happen because of the larger classes in HE; it can be difficult with big classes 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. HE students say that their 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. We have identified those differences and given some possible explanations for them. Of course, those explanations are speculative but are well grounded in our experience as researchers and lecturers in HE for some years.

Interviews

For the Portuguese case study, we interviewed 9 adult students and 5 lecturers. The qualitative analysis of the content of the interviews led to the emergence of the following category of ideas: reasons to return to HE, the learning conditions and how the students learn better. As the number of students interviewed was small for both HEI and TS, it was not possible to compare results. Results for both types of educational institutions are presented in the following paragraphs.

Students return to HE for several reasons. These may be related to family pressure, desire for "personal achievement" and market competition. They complain that the institution should be more focused on the student, for instance by providing space for the students to study and prepare group work. As for learning and teaching strategies, although one may think that e-learning is very useful, students say that it is dangerous because the student is left alone to manage his / her time. Moreover, attending classes is a very important issue for success because it is like a ritual:

> *"It is more dynamic. We arrive here already tired after a long working day. If I don't participate, after a while I do not pay attention any more. I am almost asleep. If I participate it is different. I am more attentive and memorize better".*

To have success in their studies, things must make sense and real cases are also necessary:

> *"If things make sense to me I never forget them... If I learn by memorizing, the following semester I remember nothing".*

> *I think I learn better with that kind of situation [discussions and examples of prior experience].*

Students also say that lecturers are responsible for helping (or not) to develop reflection. This objective (reflection) could be reached by motivating students to do research and to debate curricular unit programme topics among them.

One must also be aware that not all the students prefer the same conditions for study. As a matter of fact, there might be some who prefer studying alone while others prefer studying in groups. There also might be situations which may condition the preference for one or other environment. For instance, when one has to read and concentrate on a subject, he / she may prefer a quiet place; while, when they have to apply the subject studied, he / she may prefer to be with a group. Anyway, two issues that emerged almost in all the interviews are the importance of the relationship between theory and practice and the need of interaction. Some of the testimonies were:

> *"[I select the topic]. When I see how and where I can apply what I am learning, it is easier to learn. When I don't see how I can use that, it is very difficult to study and learn".*

> *"The experience makes the difference".*

> *"In my case, during the weekend I have my wife, my 2 daughters and the baby born recently. Sometimes, there are also business problems [requiring attention from me]. (…) there could be group work but completed during classes – for instance, reserve half an hour (of a 2 hours class) to do the exercises / group work. How else can I find time to meet my colleagues to do the work?"*

Usually, they also do not like studying in groups. As someone said:

> *"During my studies I faced two kinds of situations: I trusted people and then they let me down; in that case, my grade was adversely affected. Or, I did everything alone, getting good marks, while the other members of the group got the same marks but without effort (…). Workgroups are not good for good students".*

As for the assessment, continuous assessment is very important. It is easier to remember topics as the examinations are not concentrated in a short period and students receive continuous feedback:

> *"There are a series of smaller objectives, instead of one big one at the end of the semester "*.

> *"With continuous assessment no one can leave anything behind"*.

Students also refer that they prefer doing essays because this means "research". As one student said:

> *"We must work more but as we are obliged to do so, we manage to find time. If we are not forced, we don't do. But as the essays are compulsory and if we don't do them we cannot do the final examination, we find time. It is harder for us that are working, we sacrifice weekends, however I think it is [worthwhile]"*.

In the process of helping the student to become autonomous, independent and reflective, the role of the lecturer is also very important. A good lecturer is someone that is motivated, enjoys and is even fascinated by his / her job. He / she should be passionate for what he / she is doing. Lecturers should also demand a lot of the student. As one student said:

> *"We were scared, probably because we were not used to that level of pressure. Maybe it was the first time that I was forced to reflect and when I arrived at the university it was not hard for me to understand and accept the level of exigency of lecturers.(…) [we did] several essays, we had objectives, we did individual and group work, a lot of work every week. We complained, saying that it was too much but she replied 'if you managed till now that is because you can. You must know what you want'. She was a demanding kind of person. At that time, we complained but now I recognize that she was right and that kind of work, organization and research is very important"*

Learning Logs

For the Portuguese case study, five students completed the learning log – 3 from ISEGI[6] (university) and 2 from ISCAP[7] (polytechnic school). Several difficulties were encountered in this process of asking students to complete a log as it was a new methodology both for students and lecturers; the most relevant were:

- difficulty in explaining exactly what was expected from the students when completing the log, and

- difficulty in assessing the content of this tool.

This process of filling in a log by the students, the difficulties encountered and the use of this tool were an opportunity to learn from the results gathered in each log. Depending on the results, the lecturer tried to explain issues that were not so clear or even tried to change the methodology used in the classroom. For students, the feedback given by the lecturer helped to improve the reflection process. This can be seen as an ongoing improvement process both for students and lecturers.

The content analysis of the logs led to the emergence of several themes: general studying objectives, learning strategies, the role of the lecturer, difficulties felt, suggestions and other issues. In the following paragraphs the ideas arisen are summarized.

Students decided to enrol in a higher education course to have a better professional and financial life, to improve professional performance, to develop tools in a certain area and relate them with previous knowledge in a different area or even to see the practical application of the content taught or to develop a competitive advantage in relation to other students.

Students said that the learning strategies used are making a link between the course content taught and their knowledge and for that purpose examples and discussions are very useful. They also read the theory, study cases presented in the class, solve exercises

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[6] ISEGI – Instituto Superior de Estatística e Gestão de Informação, Universidade Nova de Lisboa.

[7] ISCAP – Instituto superior de Contabilidade e Administração do Porto

and interact with colleagues and lecturers. They stated that they tried to have a holistic vision of the subject (instrumental learners). Some students said that they tried to retrieve and analyse the content of other subjects that related to the one being taught, they pay attention to the explanation given by the lecturer, they reflect about where the knowledge could be applied and the potential improvement that could be gained (potential reflective learner).

As for the difficulties, some students stated that they had not been faced with this kind of content for several years, the workload at the end of the semester was considerable and they had difficulty in managing time. They also refer to difficulties with the use of foreign language in their reading list for the curricular unit, the fact that some classes are too theoretical, the lack of time to study the material taught, and the difficulty in reconciling personal / social / professional and academic commitments.

Finally, students made some suggestions to improve the learning process and to help them and their colleagues to become reflective learners; some of these are pointed out here:

- theoretical concepts should be made available online – classes should give priority to discussions and practical exercises;

- possibility to choose between continuous assessment or not, flexibility of schedule, e-learning, lecturers should motivate students;

- lecturers must be aware of the difficulties of adult students to attend classes and to deal with the workload;

- classes could be taught by different people coming from business / industry to give accounts of their experiences.

Students also made some comments regarding the use of logs as part of their learning and as an assessment methodology. In their comments they felt that the need to fill in the logs forced them to reflect about the learning process. The logs helped them to learn better and to structure ideas and contents.

Conclusions

PRILHE objectives related to the identification of the learning processes, enabling adult students in HE to become independent and reflective learners. Furthermore, the project also aimed to determine how this process could be better supported in terms of materials, systems, lecturers, etc.

In this paper we presented the results for students of the Portuguese case study, within the PRILHE project. As in Portugal the educational system allows different routes for non traditional adult students to access tertiary level education, it was decided to choose for the sample adult students from two different educational institutions – HEI and TS. Results show that there are similarities between HE and TS but that there are also some differences. Some possible explanations can be given for those differences but all of them, although speculative, are well grounded in our experience as researchers and lecturers in HE for some years. Some "best practices" were identified that are already being applied (or could be applied) to help to attain the objective of helping students to learn throughout life. Nevertheless, the results also show that, although we might be on the right path, in Portugal there is still a long way to go before adults can fully benefit from tertiary level education opportunities.

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