

Higher Education and Knowledge Transformation – Adult Perspectives About Lifelong Learning

Ana Luísa de Oliveira Pires

1. INTRODUÇÃO

This paper focuses on the topic of adult learning in a broad sense, in the context of a changing society, where knowledge and learning have been playing a key role – as can be seen by the current designations of Knowledge Society, Lifelong Learning Society, and so on. The construction and transformation of knowledge seems to be no more the exclusive of the universities or of any other formal educational systems. The construction of knowledge occurs in settings and contexts different the formal ones, and can be framed by a perspective of lifelong and life wide learning. In recent years, informal and non-formal learning have been valued from different perspectives: political, educational, economical, professional, social, and so on. We are interested in understanding, from an educational framework, how do adults put into perspective the learning that occurs outside the formal educational systems, namely in the work context, and how they value it.

In this paper we discuss some of the results obtained through a survey¹ centred on the study of the educational and professional trajectories of post-graduates of four Portuguese universities. We try to understand adult perspectives on Lifelong Learning, and discuss the results in the context of higher education.

We also use the results of Cedefop's survey at the European level, presented in the report *Lifelong Learning: citizen's views in close-up* (2004). We want to identify convergences and divergences within these results and the data gained from our national level (Portugal), regarding how adults put into perspective formal, informal and non-formal learning, their motivations to learning, perceived benefits and obstacles or barriers.

2. METHODOLOGY

The national sample for our survey (carried out in 2005) is composed of post-graduate students that returned to the universities to get the higher levels of national academic

¹The survey is one of the methodological strategies developed by an interdisciplinary team, in the framework of the research Project financed by the Portuguese government "Projecto Telos II – Lifelong learning: Evaluation of the effects on post-graduate from the higher education".

diplomas (*Mestrados* and PhD). The sample consists of 145 (128 *Mestres* and 27 Ph.D respondents) that finished their post-graduate studies in the years of 1995/1996 and 2000/2001 in four Portuguese Universities².

Concerning the gender, 69 of the respondents are males (47,6%) and 76 are females (52,4%). Respondents belong to different scientific areas: Engineering, Economics, Business and Administration, Sciences of Education, Supervising.

In the questionnaire, among other topics, we identify what adults think about the learning situations and the learning contexts that offered the best opportunity to learn something in the preceding year, the preferred way to the professional update, motivations for learning (past and future), perceived benefits of learning, and obstacles.

Some of the questions regarding the learning contexts and situations, obstacles to participation and the improvement of professional competence were reproduced, with agreement, from the DG EAC-Cedefop Lifelong Learning Eurobarometer questionnaire.

This survey was carried out in 2003 in the 15 member States, Iceland and Norway, covering residents of all these member states aged 15 years and over.

3. OUTCOMES AND FINDINGS

3.1. DIVERSITY OF LEARNING CONTEXTS

In our national level study we tried to know what adults think about the learning contexts. We were interested to know the importance given to learning that occurred during the last twelve months, informal and non-formal – acquired on work settings, leisure activities, through social and political activities, at home,... – and formal – traditional courses or sessions, organised training situations. We also wanted to identify the importance given by adults to learning that occurred in articulation with different contexts.

These core concepts can be defined as follows (Tissot, 2000; 2004):

- Formal learning occurs within an organised and structured context (formal education, in company training, ...). It may lead to a formal recognition (diploma or certificate).
- Non-formal learning is embedded in planned activities that are not explicitly designated as learning, but which contain an important learning element.
- Informal learning results from daily life activities related to work, family or leisure.

² Universidade de Aveiro, Universidade Nova de Lisboa (Faculdade de Ciências e Tecnologia, Universidade de Lisboa (Faculdade de Psicologia e Ciências da Educação), Universidade Técnica de Lisboa (Instituto Superior de Economia e Gestão).

Table 1. Learning Contexts

Learning contexts	yes	no	not applied	Total
<i>At University</i>	50,4	10,4	39,3	100,0
<i>Attending training courses/sessions in your workplace</i>	47,0	25,4	27,6	100,0
<i>Attending training courses/sessions elsewhere</i>	47,1	18,4	34,6	100,0
<i>As training placement in a company or as a part of an Exchange programme</i>	15,8	16,5	67,7	100,0
<i>Following programme combining periods of study with workplace based-learning</i>	17,9	12,7	69,4	100,0
<i>Working (learning on the Job)</i>	86,7	8,1	5,2	100,0
<i>At the workplace (talking to colleagues during breaks, reading newspapers, etc.)</i>	77,0	17,3	5,8	100,0
<i>Involvement in social or political work (trade union, political party, church or charity work, associations, etc.)</i>	26,7	29,6	43,7	100,0
<i>Being at home (watching TV, doing housework, hobbies, looking after the family, etc.)</i>	52,3	33,3	14,4	100,0
<i>Travelling, studying, working or living abroad</i>	78,3	6,5	15,2	100,0
<i>Getting together with other people</i>	65,4	25,0	9,6	100,0
<i>Using local libraries, learning resources centres, arts workshops nearby</i>	55,6	25,2	19,3	100,0
<i>Leisure activities</i>	63,9	22,6	13,5	100,0
<i>A period of voluntary, social or military service</i>	11,9	18,7	69,4	100,0

Source: UIED, Proyecto Telos 2005.

Data shows that during the last twelve months adults think they learned something relevant in different contexts and situations, mainly non formal and informal ones. The learning context more significant for the respondents is the work context. They recognise that they have learned not only during the work activity, "working" (86,7%), but also at the workplace, "talking to colleagues,..." (77,0%).

Transnational mobility is also a relevant source for learning, as 78,3% of the respondents think that they have learned "traveling, studying, working or living abroad".

Social contacts and leisure activities are also valued significant for learning – "getting together with other people" (65,4%) and "leisure activities" (63,9%).

"using local libraries, learning in resources centers, arts workshop nearby,..." (55,6%) and "staying at home" (52,3%) were also relevant situations for learning.

We stress that during the last twelve months the university was only valued as a learning context by 50,4% of the respondents. Equally the participation on training courses or sessions at the workplace (47%) or elsewhere (47,1%) doesn't seem to be as significant for the respondents.

Data shows that during the last twelve months non formal and informal learning were more important for the respondents than formal learning. Data also shows that the work setting is acknowledged by adults as an important learning context.

Compared to data of the CEDEFOP (2004) survey, we identify a strong convergence regarding the recognition of learning contexts: the majority of citizens think they learn best in informal settings. The contexts in which most citizens think that they had learned something in the past 12 months, from the most to the least frequent are:

- Involvement in all sorts of activities at home (69%)
- Getting together with other people (63%)
- leisure activities (51%)
- learning informally at work - either on the Job (44%) or while doing other things (41%)
- other informal learning settings: such as local resources centers and libraries (32%)
- working, living, travelling abroad (30%)
- social and political work (21%).

In CEDEFOP's survey, formal learning settings (schools, universities and colleges) were acknowledged as a recent and relevant context for learning by only 17% of respondents, whereas the category for training in the workplace (formally or non-formally organised) was pointed out by 18%.

According to data, informal settings are a significant component of the diversity of learning contexts, and the proportion of adults engaged in formal education and training is a small minority.

INFORMAL LEARNING AND SOCIO-ECONOMIC STATUS GROUP (SES)

The respondents of the national survey belong to the higher educated group of people. They are post-graduate, and they came to universities to get the higher national academic diplomas (Mestrados and Ph.D). These adults are highly motivated to learning, and they have a accurate perception of learning and their benefits.

If we compare this learning perception with the higher socio-economic status group from the CEDEFOP study¹, we identify a strong convergence: CEDEFOP group 1 respondents are more likely to think they have learned something (in whatever kind of context) in the

¹ The Cedefop's survey makes use of three broad socio-economic status groups: group 1 – highly educated people with a high-level Job; group 2 – the low educated with a low level job; group 3 – the low educated who are not labour market active.

preceding twelve months, particularly work-related learning. They also reported to have used mobility as a learning tool.

Across several survey questions its possible to identify that these group of respondents reveals a more consistent learning profile: "They participate more in learning of different kinds, they experience themselves as learning in a wide variety of contexts, when their interest is caught by something something they are likely to go and look for more information about it – and they see this itself as a good way to learn. They therefore use local libraries, local learning centers and similar resources as places to learn (...)" (CEDEFOP, 2004).

We would like to point out that there seems to be a strong relationship between a high level of education (highly educated people in higher socio-economic group) and the recognition of the diversity of learning settings, namely informal ones.

3.2. IMPROVEMENT AND UPDATING OF PROFESSIONAL COMPETENCES

For the national respondents, the best way to update and improve their professional competences is "secondment to another organisation or participating in an exchange programme for study, training or experience abroad" (69,7%), followed by "doing a course organised at a school, college, university or training center" (62,1%).

We point out once again the importance attributed by respondents to transnational mobility, in this case articulated with professional development.

We also point out the importance given to the university regarding the updating of professional competence.

The working context, highly valued by these respondents concerning the informal learning that occurred in the last 12 months, seems not so relevant for the updating of professional knowledge. Only 16,6% of the respondents consider that "learning by doing my everyday work" is the best way to update professionally.

However, the percentage rises up to 36,6% when they consider "learning through regular changes in tasks and responsibilities (job rotation schemes, etc.).

And "doing a course organised at my workplace" (19,1%) and "doing a course organised elsewhere" (13,1%) are not significantly valued by the graduate.

According to the European survey, inspite of people recognising that they have learned something in the past year in a wider range of contexts, specially in informal settings, when they think of the improvement of their professional competences, about half of the respondents say that they would take part in organised and formal courses. According to the Cedefop survey interpretation, this discrepancy must be related to the longstanding ideas about learning and about the traditional contexts where one is supposed to learn (formal settings like schools, colleges, universities, training centers, and so.

3.3. MOTIVATION AND BENEFITS

We consider that adult motivation for learning is articulated with the reasons, with the contribution/benefits and with the satisfaction obtained with that learning.

Portuguese respondents to the national survey consider that the main reasons for doing the post-graduate courses were those that belong to the epistemic domain: acquiring knowledge and contribution for intellectual development. Reasons articulated with the professional domain were secondly pointed by the group of Mestres: doing their job better and professional progression.

Table 2. Reasons for attending the course (%)

Reasons	Mestrado		Ph.D	
	Very important and important	Little or not important	Very important and important	Little or not important
<i>Possibil. of finding a job</i>	39,7	60,3	41,9	58,1
<i>Possibil. of keeping a job</i>	36,2	63,8	56,3	43,8
<i>Possibil. of changing a job</i>	37,3	62,7	45,2	54,8
<i>Possibil. of finding a well payed job</i>	46,5	53,5	51,6	48,4
<i>Not having Job expectations</i>	14,9	85,1	12,9	87,1
<i>Doing better the job</i>	86,0	14,0	83,3	16,7
<i>Possib. of getting the desired job</i>	66,9	33,1	81,3	18,8
<i>Progression in the Professional carrier</i>	74,4	25,6	69,7	30,3
<i>Progression in the Academic carrier</i>	62,2	37,8	78,8	21,2
<i>Contributing to the intelectual development</i>	94,4	5,6	93,9	6,1
<i>Belong to the Scientific Comunity</i>	54,7	45,3	88,2	11,8
<i>Acquiring more knowledge</i>	95,3	4,7	94,3	5,7
<i>Demands of the company</i>	14,8	85,2	40,6	59,4
<i>Initiative of the company</i>	6,3	93,8	13,8	86,2
<i>Family expectations</i>	5,3	94,7	6,5	93,5
<i>Progressing in studies</i>	66,7	33,3	66,7	33,3
<i>Other situation</i>	85,7	14,3	100,0	0,0

Source: UIED, Projecto Telos 2005.

Expectations regarding learning seem to be attained, as the majority of the respondents consider that it is "satisfied" and very satisfied with the courses (93,5% – Mestrado and 88,9% – Ph.D), and 88,9% would maintain their academic trajectory if they had the possibility to choose again.

Table 3. Satisfaction with the academic training

Level of satisfaction	Mestrado	Ph.D
Very satisfied	38,8%	55,6%
Satisfied	54,4%	33,3%
Little satisfied	5,0%	11,1%
Not satisfied	1,4%	0,0%

Source: UIED, Proyecto Telos (2005).

Table 4. Contribution of academic training

Contribution of the academic training	Mestrado		Ph.D	
	Contribute a lot and contribute	Contribute little or nothing	Contribute a lot and contribute	Contribute little or nothing
<i>Learn new things and development at the personal level</i>	97,8	2,2	97,4	2,6
<i>Respond to the Professional needs</i>	73,0	27,0	83,3	16,7
<i>Widen general culture</i>	89,1	10,9	81,1	18,9
<i>Establish personal and Professional contacts for the development of the Professional trajectory</i>	53,3	46,7	69,2	30,8
<i>Garantee abigh social status</i>	23,5	76,5	40,5	59,5
<i>Change the family situation</i>	11,0	89,0	21,6	78,4
<i>Obtain a diploma</i>	76,9	23,1	84,2	15,8
<i>Develop a critical vision of the world</i>	75,0	25,0	67,6	32,4
<i>Progress in the Professional carrier</i>	69,6	30,4	78,9	21,1
<i>Participate in the Job organisation</i>	71,9	28,1	89,2	10,8
<i>Develop interest in learning in order to develop a permanent learning trajectory</i>	86,8	13,2	84,2	15,8
<i>Contribute to the personal and social development</i>	84,7	15,3	76,3	23,7
<i>Raise the economic income</i>	48,1	51,9	66,7	33,3
<i>Develop scientific culture</i>	94,9	5,1	97,4	2,6
<i>Develop knowledge in the scientific area</i>	91,9	8,1	94,7	5,3
<i>Make decisions in a reflexive way</i>	78,5	21,5	83,8	16,2

Source: UIED, Proyecto Telos 2005.

The main contribution of academic training was considered the "learning of new things and the development at the personal level" (97,8% – Mestrado and 97,4% – Ph.D), followed by the "development scientific culture" (94,9% – Mestrado and 94,7% – Ph.D) and by the "development of knowledge in their scientific área" (91,9% – Mestrado and 81,8% – Ph.D).

The “widening of general culture” (89,1% – Mestrado and 81,1% – Ph.D) and the “development of an interest in learning and research in order to develop a permanent learning trajectory” (86,8% – Mestrado and 84,2% – Ph.D) were also relevant contributions of academic training.

The acquisition of new learning, the development of scientific culture and knowledge development are articulated contributions, that belongs to the epistemic domain. There seems to be a strong relationship between the reasons and motivations for learning, the contributions of the courses and the of satisfaction regarding the academic training.

We would like to stress the consistency between the reasons/motivations and the contributions of the academic courses. The aspects more valued by the respondents were articulated with the learning process, and the reasons more valued by adults are intrinsic and also oriented to the learning process.

Regarding future education and training, 96,6% of the respondents says that they are interested to invest on lifelong learning. The main reasons presented come from the personal and epistemic domain.

According to the CEDEFOP survey, motivations to take part in education and training tend to be mixed – both work-related reasons and personal reasons – for the most part of the respondents. Overall in the EU, the proportions of respondents are equivalent (personal and work-related motives), and is pointed out that only a minority undertook education and training solely for one of these motives. It is also underlined that this finding contrasts with literature on adult learning, where usually a higher proportion of adult learners are driven by work-related issues.

Personal benefits are more valued than work-related benefits in all countries. Of those who had a learning experience in the past 12 months, more citizens reported personal rather than work-related benefits (81% got at least one personal benefit from training against 54% who got at least one work-related benefit, and 37% got only personal benefits against 10% who got only work-related benefits).

The results of the survey show that while people tend to have mixed motives for past education and training, the benefits are more personal than work-related.

The same trend is identified regarding future education and training: motivations to take part in it are mixed, but personal motives tend to dominate.

The respondents main motivations for future education and training are:

- to achieve more personal satisfaction – 31%
 - increase general knowledge – 31%
 - do one's Job better – 27%
 - obtain a qualification – 20%
- (table 45, pg.119)

Almost all citizens support mixed purposes for lifelong learning; they think that lifelong learning is useful to achieve both non-work-related and work-related purposes, but a slightly higher proportion think lifelong learning serves non-work-related purposes in the first instance (2004, pg. 84).

3.4. BARRIERS AND OBSTACLES TO PARTICIPATION

The results of the national study show that the main reasons that do not facilitate the access to studies or training courses are related to the professional area. According to the respondents, "Professional obligations take too much energy" (65,5%) and adults "had to quit some or all of the free time and leisure activities" (47,6%) in order to keep studying or attending training courses. The main obstacles to learning and training come from the professional and the personal domains, according to the national study.

We also tried to identify in our national survey how finance obstacles are important to pos-graduate people. 40,7% of the national respondents consider that finance obstacles are a "great obstacle", 33,1% as a "small obstacle" and for 24,1% it's not an obstacle to studies or training courses. For 2,1 % of the pos-graduates finance is considered an unsurmountable obstacle.

Regarding the payment of the pos-graduate courses fees (Mestrado and Ph.D), we identified that most respondents had supported it (54,9%) by themselves, followed by the employer (13,2%). Only 7,6% say that it was their families who payed the fees of the pos-graduate courses.

It is interesting to refer the acknowledgement of the national study respondents on the lack of available courses related to their needs. This can be considered an institutional barrier to learning.

18,6% of the respondents refer as an obstacle the "non existence of adequated courses considering their needs" and the "non existence of available courses nearby" (14,5%).

These aspects seem relevant and we would like to point out to what extent academic institutions are aware of adult competence needs, and also to what extent they are prepared to respond to the new demands.

CEDEFOP research (2004) shows that "time" (all time-related obstacles) is considered the most important barrier for 37% of respondents in the EU on average. Respondents reported that family, work or leisure commitments demand too much of their energy to leave time available for learning. When analysing items separately, family commitments come first, followed by a threat to leisure time, job commitments, and last comes the idea of being too old to learn.

According to a research developed by OECD (2003-a, in CEDEFOP, 2004) time is confirmed as the most significant barrier to continuing learning, followed by lack of funding.

4. CONCLUSIONS

The results of both surveys (European and national) point out that informal and non-formal learning have been significantly valued by the individuals, specially the learning gained from the work contexts: about half of the CEDEFOP survey respondents report having learned something at the workplace in the preceding year. According to the portuguese survey, the respondents consider that the working context was the most significant learning context in the preceding year.

However, people think that the best context to improve and update their professional competences is the formal context, where universities, colleges, training centers, play a key-role. This discrepancy can be due to the people's perception that the most valued learning (from the social and professional perspective) is the one that is obtained in a institutional and recognised education setting. The role of certification and the diploma social factor can be an important factor to take in to account.

Data from CEDEFOP and from national study shows that the reasons and motivations to participate tend to be mixed – both work-related reasons and personal reasons. Motivations related to work come in second place in the national survey. In this study, the major contributions and benefits from learning are also personal and related to the epistemic domain. Regarding future learning, reasons presented to lifelong learning are mainly from the personal sphere.

The results of CEDEFOP's survey show that while people tend to have mixed motives for education and training, the benefits are more personal than work-related. And regarding future learning, motivations to take part in it are also mixed, but personal motives tend to dominate.

The results from the national study and from CEDEFOP's study show consistency with results from different studies about adult learning obstacles and barriers – reasons for non participation in adult education –, namely reported in the UNESCO study, which identifies the major reasons for adult not attending adult education courses: lack of time, lack of money, and family responsibilities (Valentine, 1997, *in* Merriam e Caffarella, 1999). According to Chiosse e Werquin (2005), based on results from an international study, (IALS, 1999-1998) adult non participation is due to time and money constraints, and to professional and family constraints. According to the authors, these findings are consistency with the trends identified on international studies (OCDE, 2003 e 2005) and can be generalised, regardless of contexts, systems and cultures.

From the theoretical point of view, adults barriers to participation in learning activities are articulated with a combination of psychological and social factors; an interpretation is only possible if we analyse the interaction between structural factors and the individual "conceptual apparatus" (Rubenson, 1998, *in* Merriam e Caffarella, 1999).

According to several authors we can identify situational and dispositional barriers, and also institutional barriers (Cross, 1991, *in* Merriam e Caffarella, 1999). There are dispositional factors (internal barriers, articulated with attitudes, such as age considered adequate to learn), situational factors (external factors, that escape to individual control, such as the cost of the fees) and institutional factors (related to practices and procedures that prevent adult participation in learning).

Considering that responders from both studies value the formal context as the best one to improve their professional competences – such as universities, colleges, training centers,... – and considering that the national study was developed in Portuguese universities, with post-graduate respondents, we are interested to discuss the results within the context of higher education.

As we pointed out, the non-formal and informal context (such as the work setting, in national survey) was acknowledged as the most valued contexts for learning in the preceding year.

We would like to raise some questions about the changing role of Higher Education:

- How are institutions facing the changes due to this knowledge transformation?
- How are the universities responding to the new demands from individuals and from the society?
- What type of changes are at stake, from the institutional and educational point of view?
- Are there any institutional mechanisms to recognise adult non-formal and informal learning?
- What is the type of relationship that can be established between informal and formal knowledge, at educational level (ex: learning activities)? How is informal knowledge used in formal learning situations?

We are interested to explore these questions, with a qualitative approach, through the analysis of data from the national study, namely with the interviews done to the coordinators of the post-graduate courses.

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