DEVELOPING INSTRUMENTS TO IMPROVE LEARNING AND DEVELOPMENT OF DISADVANTAGE SENIORS IN EUROPE: THE PALADIN PROJECT

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Abstract
This paper presents the results of the process of building self-efficacy for self-direction scales for disadvantage seniors in health, activity, education, citizenship and finances in six European countries. This process corresponds to the development of a work package of the PALADIN European project (Promoting Active Learning and Ageing of Disadvantage Seniors), which is co-financed by the Lifelong Learning Programme from the European Commission, as a Grundtvig Multilateral Project. PALADIN is based on the assumptions that people who consciously become skilled learners gain in autonomy and take more responsibility for their own learning and development and that they are also more likely to develop a sense of well-being and fulfilment. PALADIN partnership is composed of 7 institutions from 6 countries (Portugal, Spain, Greece, Malta, Hungary and Switzerland) that have some of the lowest rates of participation in lifelong learning. Once we have a long way to go before the rate of enrolment in lifelong learning activities rose to the level already achieved by some countries (e.g., 90%, Sweden), the Project intends to contribute to the empowerment of the disadvantaged seniors through the development of their readiness for self-direction in learning. In order to test the five scales mentioned, two universities (University of Coimbra, Portugal, and Aristotle University, Greece) lead the process of scales construction, which have departed from several focus groups aiming at analysing the relevant domains of functioning in each area.
After the construction of the first draft of the scales, the pilot and definitive studies have been carried out simultaneously in the European countries mentioned in seniors with more than 50 years old with low school level, low qualification and low economic level. The results of this process and the construct validity indicators will be presented and discussed at the Conference.

1. Introduction

Although knowing that adult learning increases social returns in terms of improved civic participation, better health, and greater individual well-being and fulfilment, as stressed by the European Communication "Adult learning: It is never too late to learn" (2006) [1], and by many academic researches [2], it is a fact that as age increases the participation rates tend to decrease. According to Eurostat's "Adult Education Survey" (2007), participation rates in formal and non-formal education and training in all EU member states in 2007, for adults aged 55-64, is the lowest (21,6%), since the average of the European countries is 35,7%, being Hungary (2,5%), Greece (5,1%), Poland (6,8%) and Italy (11,8%) the countries with lowest rates for this age-group. These data impose by themselves and point to the urgent need to change these conditions. Considering that Europe is an ageing society, this is even more relevant. On average, the elderly face a higher risk of poverty than the overall population and, as people age, the risk of becoming marginalized in society increases [3]. Not only they participate less in education and training but also they tend to show poor health conditions, less involvement in activities, decreasing civic participation, especially if we are speaking of seniors in a disadvantage position.

However, since life is an endless process of learning, change and adaptation to several challenges and conditions, it is of crucial importance to cultivate and develop our ability to make the most of the situations, so that we could feel empowered, learn more, and adapt better! PALADIN project faces the challenge of helping the disadvantaged seniors in Europe to manage better their life. It stresses that health, activity, education, citizenship, and finances are key domains of functioning in our societies, and asserts that we need to strength our ability to learn and develop in those domains as a way of empowering people, specially disadvantaged seniors. For that purpose, the fundamental idea was to

increase the readiness of the seniors (over 50 years old) for self-learning in the domains mentioned, beginning with the development of several resources and instruments.

This paper presents the process of developing Self-directed Learning Readiness Scales for disadvantaged seniors in the five areas stated above. At the operational level, the goal was to construct scientifically valid scales and at the same time visually attractive, simple to use and to understand. To meet this objective, we have departed theoretically from self-directed learning and self-efficacy constructs since their link seemed to be very close [4].

It is a very consistent finding that self-efficacy "plays a key role in human functioning because it affects behaviour not only directly, but by its impact on other determinants such as goals and aspirations, outcome expectations, affective proclivities and perception of impediments and opportunities in the social environment" (p. 309) [5]. Indeed, according to this same author, "the influential role of perceived self-efficacy in human self-development, adaptation, and change" has been confirmed by meta-analyses (p. 309) [5]. On the other hand, in the area of self-directed learning, empirical studies show that people with high self-directedness have personal initiative, perseverance, self-discipline, and tend to be goal oriented [6]. They also tend to manifest self-confidence, to have high levels of self-esteem and life satisfaction [7]. Thus, given that self-direction in learning gives empowerment and promotes personal agency, and given the close link that has been shown with self-efficacy, we decided to build self-efficacy for self-direction scales in the five domains mentioned.

2. Method

2.1. Participants

The development of the scales involved up to now 12 studies in Portugal, Spain, Greece, Malta, Hungry and Switzerland, with more than 670 seniors. With few exceptions, the majority of them live in their homes with relatives, are females, have low levels of education, no qualification or level 1, are married, have low monthly income, don't participate in training sessions or educational activities and most of them live in urban areas. The participants have been contacted in different places (homes, residences, nursing homes, day care centres, new opportunities centres, institutions for social and local development, etc.) and their age ranged from 50 to 100 years old.

2.2. Instruments

All the scales have the same structure, beginning with the instructions, the rating scale (from 0 to 10), followed by the items. The respondents put their confidence value in a space in the right side of each item (see figure 1). The final versions of all the scales have 20 structured items plus an open question. The only exception is health scale since one more item has been added, as a measure of subjective perception of health.

Fig. 1. Example of the Citizenship Scale.

Each scale takes about 10 minutes to answer and the majority of the seniors didn't show difficulties answering the items. On the contrary, they seemed to be understandable, meaningful and interesting to the seniors.

2.3. Procedures

The *first step* in developing the scales was to define the relevant domain of functioning for each of them. Health Scale contains items assessing physical exercise, food, life hygiene, visits to health professionals and learning about health. Activity Scale considers professional situation, voluntary and associative activities, cultural activities, leisure time occupation and personal and social development. Education Scale includes formal paths of education/training, non formal experiences of education/training, general understanding of education/training, and motivations and strategies for involvement in education/training. Citizenship Scale measures confidence for civic participation at an individual level, in the sphere of interpersonal relationships and in the domain of social and intercultural relationships. Finally, the Finances Scale includes items related to managing the budget, income and spending sources, prioritizing, and medium and long term budgeting. The item generation process came from the experience of the researchers, a small literature review and mainly from 10 focus groups carried out with 23 seniors from New Opportunities Centres and Day Care Centres for the elders in Coimbra (Portugal).

In the pilot and definitive studies all the seniors in the several countries answered the scales in a warm atmosphere and voluntarily. Besides the 5 new scales, the seniors answered the PANAS [8], SWLS [9] and ROS [10] scales and a demographic sheet. These instruments were included in the study as measures of construct validity. The Portuguese participants answered additionally a scale of self-learning [11] as a measure of convergent validity, produced by Portuguese researchers.

3. Results

Table 1 presents the reliability coefficients obtained in the definitive studies.

Table 1. Reliability coefficients (Cronbachs' alpha)

Country	Scales				
	Health	Activity	Education	Citizenship	Finances
Portugal (N=217)	.88	.91	.96	.92	.94
Spain (N=99)	.89	.95	.98	.96	.99
Greece (N=103)	.95	.97	.98	.99	.99
Malta (N=60)	.97	.97	.99	.99	.99
Hungry (N=108)	.92	.93	.97	.93	.95
Switzerland (N= 68-84)	.91	.92	.98	.93	.99

Table 2 presents validity indicators for the Portuguese definitive study. Tough we have validity measures of the other countries, it is not possible to show them due to space limitations.

Table 2. Validity indicators in Portugal

Scales	N	Validity indicators					
		EAA	ROS	PA	NA	SWLS	Age
Health	216	.284**	.165*	.313**	-.094	.148*	-.090
Activity	216	.268**	.121	.400**	-.091	.222**	-.086
Education	216	.455**	.205**	.331**	-.019	.120	-.229**
Citizenship	216	.434**	.106	.399**	-.029	.197**	-.209**
Finances	216	.216**	-.016	.326**	-.023	.200**	-.012

*p<.05; **p<.01.

4. Discussion

Given the goal of building scientifically valid scales and at the same time visually attractive, simple to use and to understand in health, activity, education, citizenship and finances to assess self-efficacy for self-direction in these domains, the results presented previously seem to point in a consistent manner to that goal.

According to Carmines and Woods, "validity is generally defined as the extent to which any measuring instrument measures what it is intended to measure" (p. 1171) [12]. There are many types of validity and this very process in an ongoing one. Thus, usually it is important to gather different validity indicators. However, facing the impossibility of using many sources of evidence in the context of the PALADIN project, we privileged construct validity that "focuses on the extent to which a measure performs according to theoretical expectations" (p. 1172) [12]. Hence, the five self-efficacy for self-direction scales were expected to be positively and significantly correlated with self-esteem, positive affect, satisfaction with life and self-learning, considering in this last case the Portuguese sample.

Conversely, the scales were expected to show a negative but not significant correlation with negative affect (discriminant validity) and to have a negative correlation with age, particularly activity and education, given that the samples came from seniors with very different ages.

As predicted, the patterns that have emerged are consistent with the predictions. In fact, all the scales tend to have a positive, significant and substantial correlation with self-esteem and positive affect, a positive and significant correlation with satisfaction with life, a negative correlation with negative affect and also a negative correlation with age. In the Portuguese sample, as an evidence of convergent validity, all the new scales were positive and significantly correlated with self-learning (table 2). In Spain negative affect revealed to be negative and significantly correlated with the majority of scales. In Greece the scales showed in general high correlations with satisfaction with life and in Switzerland in most cases the correlation levels tend to be lower than in the other countries, even though the expected pattern of relations is verified. Concerning reliability, the Cronbach's coefficients indicate that the scales items have, in general, very high levels of consistency, meaning that the items are measuring the same construct.

5. Conclusion

Given the empirical data obtained, we can affirm that there is good indication that all the scales show evidence of validity indicators (reliability, construct validity, convergent validity and discriminant validity) suggesting they serve the purpose to which they have been build. However, more analyses and studies are needed to obtain other important validity indicators such as internal structure and test criterion evidence. In future studies there is the need to enlarge the samples and to obtain them by random selection methods. Concerning the other requisites for the scales, we have worked toward producing attractive and simple to use instruments and we think that they really have these characteristics. But only its use with the disadvantaged seniors in the future will give us more clearly such information.

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