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Motives and beliefs of learners enrolled in adult education

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Abstract

The present study intended to identify adult learners' motives for enrollment, and to assess their self-determination, self-efficacy beliefs and academic self-concept in a sample of 310 adult learners attending three different types of courses (short courses; long, vocational courses; long, nonvocational courses), as well as relating these constructs to each other and assess differences according to background variables. Autonomous regulation showed a strong, positive relationship with the epistemic motive and moderate, positive relationships with self-efficacy and academic self-concept. Although learners scored high in both intrinsic and extrinsic motives, group mean comparisons revealed that some characteristics like lower qualifications, unemployment and being a male showed a stronger connection to an extrinsic orientation. These results are in line with SDT predictions about the quality of motivation and suggest that learners with the former characteristics could be more at risk of failure and drop-out. Overall this study highlights the relevance of examining motivational variables in adult learners. Considering the relatively scarce research in the field, future research should further investigate adult learners' motivational profiles and how they relate to achievement.

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Keywords: Adult education; motives for enrollment; autonomous/controlled regulation; self-efficacy; personal determinants.

1. Introduction

As adult education becomes increasingly important worldwide, to promote adult learners' enrollment, persistence and successful completion of educational courses it is crucial to understand their motives, beliefs and goals, and how these relate to their background variables and to the various types of educational courses they attend.

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Our purpose in this study is to understand some of the main motives of learners for enrollment in adult education, their type of motivation (autonomous vs. controlled), their learning self-efficacy and academic self-concept and how these variables relate to each other. We also want to explore group differences according to adult learners' background variables (gender, age group, employment status and educational level) and to the type of educational course they attend.

1.1. Motivation and the adult learner

Adult learners refer a multitude of motives for enrolling in education: *extrinsic motives* that include professional, economical and improvement of status motives, and *intrinsic motives* that comprise mainly their desire to learn the subject at hold and social motives like meeting new people (e.g., Kim, Hagedorn, Williamson, & Chapman, 2004; UNESCO, 1998).

Research shows that the level of participation in adult education is higher among young, employed and highly educated individuals, who pursue both intrinsic reasons (interest in the subject, personal enrichment) and extrinsic reasons (job related) for participation (Berker & Horn, 2003). Less qualified and unemployed adults have a lower degree of participation and report essentially professional reasons for returning to education, like hoping to get a better job (Daehlen & Ure, 2009; Konrad, 2005). However, some studies show that less qualified individuals also state improving their self-esteem (Valentine, 1990) and meeting new people (Daehlen & Ure, 2009; Kim & Merriam, 2004) as very important motives to enroll.

Age is also a determinant factor in adult participation in educational activities. Participation tends to decrease with increasing age (specially above 45) because as adults approach retirement, not only do they perceive less advantages coming from education to their professional progression, but they experience less support from their employers as well (Kyndt, Michielsen, Van Nooten, Nijs, & Baert, 2011). However, being older does not mean being less keen to knowledge and education, as an increasing body of research shows that nontraditional age undergraduates (above 25) have higher levels of *intrinsic motivation* than younger, traditional age undergraduates (Bye, Pushkar, & Conway, 2007; Steinberg, 2006), and this is particularly outstanding for the nontraditional female students (Justice & Dornan, 2001; Murphy & Roopchand, 2003). Interestingly, and in line with Self-Determination Theory predictions, many studies also show that although having to reconcile their educational activities with family life and work, adult learners show better academic performance than their younger colleagues (Eppler, Carsen-Plentl & Harju, 2000; Carney-Crompton & Tan, 2002; Hoyert & O'Dell, 2009; Morris, Brooks & May, 2003).

The type and length of the course also influence adult learners motivation; some studies found lower levels of self-determination in short-term courses (Carré, 2001); and whereas in traditionally academic settings, students reported mainly intrinsic, epistemic motives to enroll and persist in education (Pires, 2009; Vertongen, Bourgeois, Nils, de Viron, & Traversa, 2009), in vocational courses a larger number of adults state extrinsic, job-related motives (Ferreira, 2010; Martinho, 2011).

Philippe Carré's model of motivation for adult education and training (Carré, 2000; 2001) summarizes a pattern of ten motives for participation. Of these ten motives, three are intrinsic: epistemic (learning for its own sake), socio-affective (search for interpersonal relationships), and hedonic (pleasure taken from the space and materials available in the educational setting); and seven are extrinsic: economic (demand for economic benefits), prescribed (the learning activity was prescribed by someone else), derivative (participation is a way to avoid situations or activities perceived as unpleasant), professional-operational (wanting to acquire professional skills), personal-operational (acquisition of skills for activities outside of the workplace), vocational (demand for skills or symbolic recognition needed to obtain, preserve or evolve in a job) and identity-based (demand for skills or symbolic recognition of one's identity/improving one's status). Carré's own research with adults in short professional courses showed that two different groups of participants could be identified: one group composed of older, employed and more qualified adults, mainly men, who stated mainly the *professional-operational motive*;

the other group consisting of younger, less qualified and/or unemployed and mainly female participants, who scored higher than the first group in all other motives, but specially in the *vocational motive*.

One of the most important motivational factors in students' learning, persistence and performance are self-efficacy beliefs, i.e., students' perceived ability to learn and attain an intended level of performance (Bandura, 1977; Schunk, 1991; Zimmerman, 2000). In adult education, self-efficacy beliefs are influenced by adults' educational level, that is, self-efficacy is generally higher in the more qualified (Carré, 2011; Ferreira, 2010; Martinho, 2011). Comparative studies of traditional vs. nontraditional students have not found significant differences between the two groups in their levels of perceived self-efficacy for the course, but there seems to be a tendency for slightly higher medium values in the nontraditional students (Spencer, 1999; Spitzer, 2000).

Like self-efficacy beliefs, self-concept — particularly, academic self-concept — was also consistently linked to academic achievement (e.g., March, 1990). Self-concept refers to the beliefs and expectations one has about one's self, and like self-efficacy, it is a multidimensional, or domain-specific construct (Shavelson, Hubner & Stanton, 1976). Its multidimensional nature helps to explain why academic self-concept relates to academic achievement, while global self-concept or self-worth is only weakly related to the latter (Kumar, 2001). Although similar constructs, whereas academic self-concept relates to one's view of his academic abilities, academic self-efficacy is more about what one believes he can *do* or achieve with the abilities he may possess (Bong & Skaalvik, 2003). In adult education, research on academic self-concept is scarce (Clift, 1998). This may be due to the fact that in adulthood other dimensions of self-concept (for instance, as a professional and as a caregiver) gain more importance, so adult self-concept scales tend to reflect these other dimensions (see for instance Messer & Harter, 1986). A study by Clift (1998), comparing midlife (40 to 59) undergraduates and early adulthood (20 to 39) undergraduates showed that midlife students scored higher than early adulthood male students in the Love of Learning and the Academic Skills subscales of the Drummond Academic Self-Concept Scale.

To better understand adult learners' engagement in learning it is also important to investigate their level of autonomy and self-determination, i.e., if they have a more *autonomous* or a more *controlled* motivation. We will address these two forms of motivation in the next section.

1.2. Autonomous and controlled motivation

Self-determination theory (SDT) is one of the most important sociocognitive theories studying motivation in education, focusing on the effects of autonomous vs. controlled (or external) motivation.

Two main forms of motivation facilitate students' autonomous learning: intrinsic motivation and internalized motivation (including identified and integrated regulation) (Deci & Ryan, 2000; Lens, Vansteenkiste & Matos, 2009). Intrinsic motivation refers to the performance of an activity for its own sake, for instance, learning about a subject because we find it interesting. It is the most optimal state of motivation, because it is fully autonomous and self-determined. However, humans do not always engage in learning activities because they like them or find them interesting; very often an individual's actions and goals are externally controlled, but if he recognizes the importance of this externally-generated goal and has fully made it his own, we can say that his regulation is identified. On the contrary, controlled (or external) regulation is present in two types of externally generated and controlled types of motivation: *extrinsic motivation*, that refers to behaviors ruled exclusively by the anticipation of rewards; and *introjected regulation*, that refers to goals and behaviors that have been partially assimilated by the individual but whose importance has not been really integrated, so they are still a source of internal pressure or conflict to the self (Deci & Ryan, 2000).

A large body of literature shows that there is a strong link between autonomous regulation (and the educational contexts that promote it) and positive educational outcomes like persistence, concentration, deep-learning strategies, effective time management and higher grades (for a review, see Reeve, Deci & Ryan, 2004). The effects of controlled regulation, on the other hand, are not so clearly understood; while some theories

considerer that the more the *quantity* of the motivation, the better (whether it is intrinsic or extrinsic motivation), SDT authors and researchers believe that motivation can also vary in its *quality*, and that a high quality motivation is one in which autonomous regulation is high, and controlled motivation is low; on the contrary, a low or poor quality motivation would be one in which controlled regulation is high, and autonomous motivation is low (Lens, Vansteenkiste & Matos, 2009). The most controversial point of the SDT perspective is their claim that a high quality motivation has better learning outcomes than a *high quantity motivation* (high autonomous, high controlled motivation).

How do self-efficacy and self-concept relate to the two forms of motivation (autonomous and controlled)? Theoretically, SDT suggests that "perceived competence [or self-efficacy] is necessary for any type of motivation" (Deci & Ryan, 2000, p. 235). Some studies indeed found a link between self-efficacy and autonomous motivation (Alivernini & Lucidi, 2011), and between academic self-concept and autonomous motivation, or intrinsic motivation (Ahmed & Bruinsma, 2006; Coetzee, 2011), and suggested that these variables help to explain significant variance in academic performance; but the same studies failed to find a significant relation between self-efficacy or self-concept and controlled motivation. On the other hand, Carré (2001) found weak correlations between intrinsic and extrinsic motives for enrollment and adult students' self-determination feeling, as well as between self-determination and perceived competence, while surprisingly, all motives (including intrinsic motives) were negatively (though weakly) related to students' perceived competence. Other studies using Carré's model also did not find strong positive relations between most of the motives and students' perceived competence, although the relationship between the latter and the self-determination feeling was higher in these studies than the one found in Carré's research (Correia, 2009; Ferreira, 2010)[a]. While most of the studies we reviewed place self-efficacy/self-concept as antecedents to intrinsic motivation, some authors considerer that intrinsically motivated students, because they use adaptive learning strategies and are therefore more successful, develop a sense of self-confidence that may lead to a more positive academic self-concept (Mnyandu, 2001); so the three constructs (self-efficacy, self-concept and autonomous motivation) have probably reciprocal effects on each other.

In sum, the goals of the present study were: *1)* to identify the main motives underlying enrollment in adult education, as well as adult learners' types of motivation, self-efficacy beliefs, academic self-concept and how these relate to each other; *2)* to investigate differences in these variables according to adult learners' personal, background variables (gender, age group, employment status and educational level), as well as to the type of course they attend.

2. Method

2.1. Participants and procedure

Participants were 310 adults (51.6% male, 48.4% female) with ages ranging from eighteen to fifty eight years old (M=29.71; SD=11.18), enrolled in three types of courses: short courses (ranging from 50 to 175 hours); long, vocational courses (of one year length, or of two and a half years length); long, nonvocational courses (average length of four years). As to their occupational status, 138 participants (44.5%) were unemployed, 103 (33.2%) were students and 69 (22.3%) were employed. Educational level was also differentiated: 190 participants had at least completed secondary education, and 130 participants had less than the secondary education degree. There was an overlap between educational level and type of course, as 72.3% of the group with less than secondary-

[a] The fact that the Perceived Competence Scale in Carré's study is a composite scale that measures both global, job, learning, adaptation and course competence may help to explain the negative and/or low values of the correlations

level was enrolled in vocational courses (these vocational courses combine vocational training and secondary education).

Because it was important to capture students' initial motives for enrollment, questionnaires were administered generally during the first week after the courses had started. At least one researcher was present during data collection. Students completed the surveys in approximately 15 min. Participation was voluntary, and anonymity was guaranteed.

2.2. Instruments

Questionnaire of motives for education and training (Carré, 2001). The original scale consists of ten subscales (of 4 items each) that measure ten motives for enrollment: epistemic, socio-affective, hedonic, economic, professional-operational, personal-operational, vocational, prescribed, derivative and identity-based. Adults rated their agreement with each motive in a 4-point scale (1=totally disagree... 4=totally agree).

Learning Self-Regulation Questionnaire (Williams & Deci, 1996). LSRQ belongs to a group of scales developed within the Self-determination theory. It measures two factors: autonomous regulation and controlled regulation. There are three groups of items (A,B,C), each with four items (12 in total), and participants score them in a 4-point scale. Values of reliability in the original study were of .80 for the autonomous regulation subscale and .75 for the controlled regulation subscale. Because the original scale was designed for medical students, we had to adapt the content of the items, but we kept its original sense.

Self-Descriptive Questionnaire-III (Marsch, 1992). SDQ-III is designed to measure multiple dimensions of self-concept in college students and other adults, and because the subscales are well differentiated, they can be used separately. The original scale had good reliability values (medium alpha=.89). We used the academic subscale (4 items) of SDQ-III. Participants rated their agreement with each item in a 4-point scale (1=totally disagree... 4=totally agree).

Academic self-efficacy scale (Midgley et al., 2000). We used the academic self-efficacy scale of PALS (Patterns of Adaptive Learning Scales), which is a five-item scale measuring student's beliefs about their competence to learn and do their class work. In the original study the scale had an alpha of .78. Adults rated their agreement with each item in a 4-point scale (1=totally disagree... 4=totally agree).

3. Results

3.1. Study 1: Adult learners' motivation

Students scored higher in the epistemic (M=13.02; SD=1.75), vocational (M=12.93; SD=2.63) and identity-based (M =12.00; SD =2.23) motives. Values of autonomous regulation (M=20.54; SD=2.42) were clearly higher than values of controlled regulation (M=14.53; SD=2.70). Self-efficacy for the course (M=15.13; SD=2.23) and academic self-concept (M=11.82; SD=5.92) had moderately high medium-values.

The relations between the most relevant variables are presented in Table 1. Autonomous regulation was positively related with all the other variables, especially with the epistemic motive. Controlled regulation was positively related to the epistemic, vocational and especially with the identity-based motive and had negative relations, although not significant, with the other variables. Whereas the epistemic motive had a positive, although weak, relation with self-efficacy and academic self-concept, the two extrinsic motives (vocational and identity-based) were not related to the latter variables.

Table 1.*Correlations between Autonomous and Controlled Regulation, Epistemic, Vocational and Identity-based Motives, Self-efficacy and Academic Self-concept.*

Variables	1	2	3	4	5	6	7
1.Autonomous regulation	1	.16**	.54**	.27**	.32**	.34**	.39**
2.Controlled regulation	—	1	.23**	.30**	.42**	-.01	-.03
3.Epistemic motive	—	—	1	.32**	.46**	.18**	.22**
4.Vocational motive	—	—	—	1	.37**	.09	.02
5.Identity-based motive	—	—	—	—	1	-.02	.03
6.Self-efficacy	—	—	—	—	—	1	.52**
7.Academic self-concept	—	—	—	—	—	—	1

Note. **p<.01

3.2. Study 2: Group differences in Motives, Autonomous and Controlled Motivation, Self-efficacy and Academic Self-concept

We used Independent t-tests and Analysis of Variance (ANOVA) to investigate differences between groups, namely: between male and female participants; between more and less qualified individuals; between students under and above 25 years old; between students, employed and unemployed persons; and between the three different types of courses. The results are reported in Table 2 and Table 3.

Table 2. *Means for Male and Female participants, for More and Less Qualified Participants and for Participants under 25 and above 25 years old, together with t-test*

Variables	M	F	*t* test	-12	+12	*t* test	<25	≥25	*t* test
Epistemic motive	12.84	13.22	-1.88	13.25	12.88	1.77	12.92	13.10	-.90
Vocational motive	13.32	12.52	2.69**	14.04	12.22	6.28***	12.07	13.66	-5.54***
Identity motive	12.13	11.86	1.08	12.89	11.43	5.92***	11.73	12.21	-1.87
Socio-affective motive	11.75	11.76	-.02	12.24	11.45	3.24***	11.71	11.77	-.25
Economic motive	12.15	10.94	3.63***	12.48	10.98	4.42***	11.39	11.74	-1.03
Personal.-op. motive	10.64	10.05	2.06*	11.55	9.60	7.23***	9.53	11.03	-5.48***
Professional.-op. motive	10.28	9.03	3.00**	10.69	9.04	3.90***	8.82	10.40	-3.75***
Prescribed motive	9.84	9.10	2.42*	10.73	8.69	6.85***	9.05	9.83	-2.50*
Derivative motive	10.09	10.14	-.17	10.93	9.59	4.66***	9.33	10.74	-5.03***
Hedonic motive	11.35	11.04	1.23	11.92	10.75	4.65***	11.17	11.22	-.19
Autonomous regulation	20.27	20.83	-2.04*	20.28	20.76	-1.76	20.29	20.76	-1.72
Controlled regulation	15.00	14.01	3.22***	15.54	13.86	5.49***	14.33	14.67	-1.11
Self-efficacy	15.20	15.05	.55	15.04	15.18	-.53	14.84	15.42	-2.32
Academic Self-concept	11.69	11.95	-1.31	11.34	12.12	-3.93***	11.68	11.95	-1.32

Note. M=Male Participants F=Female Participants; -12=less than secondary degree +12=equal or more than secondary degree; <25=under 25 years old ≥25=equal or above 25 years old

*p<.05 **p<.01 *** p<.001

Table 3. *Means for Employed, Unemployed and Student Participants and for Participants in Short, Long Vocational and Long nonvocational courses, together with F values*.

Variables	Emp.	Une.	Stu.	*F*	Short	L.Voc	L.N.Voc	*F*
Epistemic motive	12.72	13.17	12.92	1.21	13.29	13.10	12.70	2.48
Vocational motive	13.12	13.80	11.57	22.98***	12.74	14.05	11.97	18.86***
Identity motive	11.98	12.15	11.73	.94	11.90	12.67	11.39	11.27***
Socio-affective motive	11.55	11.92	11.69	.66	11.80	12.14	11.40	2.91
Economic motive	11.54	11.86	11.12	1.18	10.37	12.40	11.47	11.03***
Personal-op. motive	10.60	11.06	9.30	16.89***	10.63	11.17	9.49	16.42***
Professional-op. motive	11.85	9.85	7.97	25.61***	9.46	10.94	8.65	12.03***
Prescribed motive	9.15	10.21	8.80	9.41***	9.84	10.47	8.43	20.58***
Derivative motive	10.37	10.85	9.01	14.90***	10.89	10.85	9.02	20.60***
Hedonic motive	10.55	11.55	11.12	4.41*	11.57	11.51	10.66	5.36**
Autonomous regulation	20.85	20.47	20.52	.45	20.51	20.54	20.64	.08
Controlled regulation	14.34	14.77	11.29	1.30	13.20	15.57	14.34	18.66***
Self-efficacy	15.45	15.38	14.68	3.27*	15.54	15.10	14.98	1.46

Note. Emp.=Employed Une.=Unemployed Stu.=Student; Short=short courses L.Voc.=long vocational courses L.N.Voc=long nonvocational courses.

*p<.05 **p<.01 *** p<.001

Results concerning Carré's motives for adult education evidenced that:

- Men scored significantly higher than women in the economic, professional-operational, personal-operational, vocational and prescribed motives, that is, in five out of the seven extrinsic motives.
- Less qualified participants scored significantly higher in all the ten motives, with the exception of the epistemic motive, in which they scored higher, but not significantly. This was also truth for participants in long vocational courses, who scored significantly higher in all motives except the epistemic and the socio-affective motives.
- Participants above 25 years old scored higher in four extrinsic motives — vocational, personal-operational, derivative and professional-operational. They also scored slightly higher in one intrinsic motive, the hedonic.
- The unemployed individuals and the employed individuals scored higher than students in the vocational motive, the personal-operational motive and the derivative motive. The unemployed also scored higher than the employed in the hedonic motive and the prescribed motive, while the employed only scored higher in the professional-operational motive.

There were no significant differences between the groups as to their autonomous regulation, except for a small yet significant difference between female and male participants (women were more autonomous). However, some differences were found for controlled regulation, namely:

- Male participants showed higher controlled regulation than female participants;
- Less qualified participants showed higher controlled regulation than more qualified participants;
- Participants in long-term vocational courses also had significantly more controlled regulation than participants in nonvocational courses and short-term courses.

Self-efficacy showed only a small yet significant effect of age: adults under 25 showed lower self-efficacy beliefs than adults over 25 years old. Academic self-concept was significantly higher in the more qualified students.

Conclusions

We will discuss the two studies separately.

Study 1: Adult learners' motivation. Students scored higher in the epistemic, vocational and identity-based motives. These results are in line with other studies that show consistently that adult learners state both intrinsic motives and extrinsic, job-related motives for enrolling in adult education (Berker & Horn, 2003; Carré, 2001; Pires, 2009; UNESCO, 2011; Vertongen et. al., 2009). The identity-based motive, which relates to wanting to improve one's status and self-worth, is also an often stated motive by adults to engage in education (Valentine, 1990). We also found that students had higher values of autonomous motivation than controlled motivation, which is also in line with previous research that shows that one characteristic of adult learners is that they are quite intrinsically motivated, especially when compared with younger students in the same settings (Bye, Pushkar, & Conway, 2007; Justice & Dornan, 2001; Murphy & Roopchand, 2003; Steinberg, 2006).

Correlations between variables were also as predicted, showing a strong, positive relationship between autonomous motivation and the epistemic motive, whereas controlled motivation was more strongly related to an extrinsic motive, the identity-based motive. Self-efficacy and self-concept had only a weak relationship with the epistemic motive, which is in line with previous research that showed that there was no relevant connection between motives for enrollment and self-efficacy (Carré, 2001; Correia, 2009; Ferreira, 2010). Also in line with previous studies (Ahmed & Bruinsma, 2006; Alivernini & Lucidi, 2011; Coetzee, 2011), autonomous motivation was positively related to self-efficacy and to academic self-concept, while controlled motivation had no significant relation with the latter variables. These results further corroborate SDT predictions about the different quality of autonomous vs. controlled regulation and indicate the importance of learning environments that promote both intrinsic motivation and self-efficacy. More research is needed in order to better understand the direction in the relationship between self-efficacy/self-concept and autonomous regulation.

Study 2: Group differences in Motives, Autonomous and Controlled Motivation, Self-efficacy and Academic Self-concept. Results in group comparisons met many of our predictions and complement existing research. Similar to Carré's study (2001), participants with low qualifications and/or unemployed, who attended vocational courses and were mainly male, were characterized by high levels of extrinsic motivation (controlled regulation and extrinsic motives). However, although less extrinsically motivated, individuals with higher qualifications, as well as employed individuals, were not necessarily more autonomous and intrinsically motivated than the former mentioned participants, as their results in these scales were comparable. In any case, these results lead us to reflect on the importance of intervening with learners with the upper mentioned personal characteristics to attempt to reduce the possible negative effects of their highly controlled regulation (for instance, avoiding their drop-out).

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