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AUTONOMY AND COMPETENCE FOR LEARNING

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Abstract

This study aims to examine the relationship between the learning competence and the autonomy value. The values underlying autonomy and the theoretical dimensions of the learning competence were described. Scales to collect information on these constructs were drawn up and validated. Nearly 500 university students from five different faculties at the University of Deusto (Bilbao, Spain) took part in the study. Findings indicate that autonomy and the learning competence are moderately positively related.

Keywords: Autonomy, development of values, lifelong learning, competence to learn, self managed learning

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1. Introduction

1.1. The autonomy axis

Autonomy and personal initiative can be approached from different points of view, each of which results in a differential conceptualization and complements the rest. They can be considered from the aspect of competences, focusing on the skills, knowledge and attitudes needed to exercise them as they are understood in the list of basic competences that serve as guidelines for most educational curricula today. They can also be approached from the aspect of values, focusing on aspects that prompt autonomy and initiative. This is the approach used in this study.

Transit through the phases of human development is linked to different visions of the world which reflect different ways of understanding and situating oneself in reality, from the dependence motivated by the search for security and belonging to the autonomy motivated by initiative and the search for an individual and group life project. In terms of values, this process can be described as transit from heteronomy to autonomy.

Heteronomy reflects a view of reality where people seek to belong to the organized world through specific rules and regulations. Accepting them provides the security, acceptance and acknowledgement necessary to function properly in social institutions. Relationships with the world are set up through the groups one participates in. Persons perceive that their lives are controlled from the outside by authorities. The values typical of this phase, which are the ones that guide and make it possible to understand decisions and actions at this particular moment in life, are self-esteem, the family, belonging, social affirmation, friendship, peer support, the perception of one's own competence, work, competitiveness, duty, communication, success and efficacy.

Autonomy entails another vision in which reality is perceived as a project one wishes to take part in and in which everyone is involved. There is a first level of development oriented to self-affirmation and independence to evolve towards a second level of development governed by interpersonal and inter-institutional collaboration. Internal control and authority are sought, thus forming an autonomous consciousness. People in this phase have the consciousness and skills needed for decision-making based on their own criteria, without depositing their trust in external authority. They acknowledge that there are different points of view on significant issues and begin to move towards an objectivised rational view of truth and justice that goes beyond the immediate. Acceptance from others and meeting their expectations to judge oneself play a lesser role than in previous stages. Some of the values that

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drive people in this stage are self-realisation, equality, integration, service, justice, being oneself, acceptance, flexibility, sharing, collaboration, the community, support and innovation.

In order to make the transit from dependence to autonomy, conditions of security, acceptance and belonging must be established to enable the individual to integrate critical aspects related to personal initiative in his orientation to choices and key positions focusing on the future (Bunes, 2012; Values Technology, 2001). For the purposes of this study, autonomy has been understood as a path of values linked to security, personal care, self-esteem and self-knowledge, one's own criteria and the meaning of life.

1.2. The learning competence

The learning competence is a key part of university education because it determines the possibility to continue learning throughout one's life and the capacity to successfully face life as a citizen and professional.

We understand competences as "knowing how to form a complex whole from identification and integrated mobilisation of knowledge, skills and attitudes that generate an efficient result when completing tasks, solving problems or achieving objectives" (Yaniz & Villardón, 2006, p. 23). Therefore, having the learning competence is knowing how to manage one's own learning by using cognitive, motivational, metacognitive and support strategies to attain particular objectives in different situations; solving the difficulties encountered when identifying, understanding or applying what has been learned; and setting learning goals that are appropriate to the needs at each moment. These goals must be realistic and feasible.

Four main dimensions can be inferred from the conception of learning competence. Self-management of learning; Knowledge construction; Self- knowledge as apprenticeship and Knowledge transfer (Villardón, 2012).

Learning Self-management consists of deliberate decision making concerning the proper steps to approach a task and select the right resources. It is then necessary to plan and assess actions and procedures to achieve the goals pursued (López-Aguado, 2010). We have found an important link between the competence for lifelong learning and autonomy in this dimension.

1.3. Autonomy and the learning competence

Autonomy includes the capacity for decision making with one's own criteria, the capacity to adapt to new situations and foster changes and improvement in one's environment. Persons must acknowledge the role of certain values that support this dimension to develop

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personal autonomy. These values include self-esteem or being oneself and developing certain skills such as self- management of one's own learning.

In addition to this interrelationship between autonomy and self-management of learning, we find key relationships between autonomy and the rest of the dimensions of the learning competence.

Firstly, a considerable body of knowledge and skills is needed to build permanent knowledge to efficiently use the processes involved in self-management and carry them out autonomously for different purposes.

Secondly, knowledge of oneself and a well-adjusted self-concept are required to set realistic goals and expectations, select effective strategies and maintain a sufficiently high motivation level during learning. This knowledge is achieved through practice based on honest self-evaluation that stems from and reinforces personal autonomy at the same time.

Lastly, autonomy boosts effective use of what has been learned in different situations and contexts, while continued knowledge transfer increases autonomy and strengthens its recognition as valid for the person him/herself.

2. Purpose of the Study

The study has focused on the relationship between the autonomy value and the learning competence in a sample group of university students.

3. Research Methods

Lecturers were contacted and informed about the research. They were asked to collaborate so that the survey could be administered to groups during class time. Students were informed about the characteristics of the research and that their participation was voluntary.

They replied to the scale using a computer-based application. The survey was administered by purpose-trained professionals between April and May 2011.

4. Findings

4.1. Learning competence level

As for the learning competence level, the average score on the scale was 3.75, with possibilities ranging from 1 to 5. This indicates that students have a high perception of the learning competence level.

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Self-assessment was the dimension with the highest score (Average=3.81; s.d.=.60) and the dimension with the lowest score was Self-management, although scores were still high (Average=3.71; s.d.=.61).

The score distribution is not high, not exceeding the value 1. A certain tendency of accumulation is seen in the cases of high values on the scale, and is confirmed with the descriptive results (see Table 1).

Table 1. Descriptive statistics of the Learning Competence Scale

Dimensions	N	Minimum	Maximum	Average	Standard deviation	Asymmetry
Self-management	487	1	5	3.71	.61	-.58
Knowledge construction	487	1.75	5	3.75	.51	-.58
Transfer	487	1	5	3.8	.68	-.65
Self-assessment	487	1.67	5	3.81	.60	-.58
Total learning competence	487	1.61	4.9	3.75	.46	-.73

As can be seen in Table 2, 7.21 was the average score on a scale of 1 to 10 for the level of autonomy, thus implying that students consider this value to be quite important.

Table 2. Descriptive statistics of Goal Values, Mean Values and total for autonomy

Values	N	Minimum	Maximum	Average	Standard deviation	Asymmetry
Goal Values	487	2.82	9.55	6.74	1.01	-0.12
Mean Values	487	4.33	9.33	7.55	0.93	-0.77
Total autonomy	487	4.27	9.27	7.21	0.87	-0.44

More specifically, the Goal Values received lower scores (Average=6.74; s.d. =1.01) than the Mean Values (Average= 7.55; s.d. =0.93). This can be explained by Mean Values being more directly linked to students' concerns at present.

The asymmetry of the score distribution on the scales and subscales never exceeds the value 1. However, a tendency to respond to high values is seen in all cases.

Table 3 shows the correlations for the relationship between the learning competence and the full scale and the autonomy axis (Pearson's r).

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Table 3. Correlations between autonomy and the competence to learn

Dimensions		Self-assessment	Transfer	Knowledge construction	Self-management	Learning competence
Autonomy Mean Values N= 487	Pearson's correlation	.21	.32	.31	.21	.32
	Significance. (bilateral)	0.00	0.00	0.00	0.00	0.00
Autonomy Goal Means N= 487	Pearson's correlation	.23	.25	.35	.30	.37
	Significance. (bilateral)	0.00	0.00	0.00	0.00	0.00
Autonomy axis N= 487	Pearson's correlation	.24	.32	.36	.28	.39
	Significance (bilateral)	0.00	0.00	0.00	0.00	0.00

The results indicate a moderate positive significant relationship between the total for the learning competence and the total for autonomy (.39), thus demonstrating that these two aspects have a certain degree of joint variation.

When the results are specified by dimensions, the Goal Values, or future aspirations, have a stronger relationship with knowledge construction (.35) than with self-assessment (.23). This difference can be explained by the fact that knowledge construction, as it has been specified on the scale, entails a higher level of development than self-assessment, which is implemented as more of an instrument.

The Mean values have a stronger relationship with the transfer dimension (.32) and a weaker one with self-management and self-assessment (.21). The explanation for this difference may come from the way these dimensions are used on the scale, as explained above. Transfer includes statements on how to apply what one has learned to different academic subjects, which is a very "immediate" concern for students and thus, more closely linked to everyday life.

We carried out a variance analysis (ANOVA) to analyse if the student's degree of autonomy varied significantly with his/her learning competence level (Table 4).

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Table 4. Averages and standard deviation for the Autonomy and Learning Competence Scale

Degree of autonomy	Statistics	Learning competence	Self-management	Knowledge construction	Transfer	Self-assessment
Low N=162	Average	3.56	3.50	3.56	3.57	3.62
	Standard deviation	0.47	0.64	0.51	0.68	0.63
Medium N=168	Average	3.76	3.73	3.74	3.79	3.86
	Standard deviation	0.41	0.55	0.49	0.66	0.61
High N=157	Average	3.95	3.89	3.96	4.03	3.96
	Standard deviation	0.42	0.58	0.45	0.62	0.52

Thus, students with a lower degree of autonomy showed a lower level of learning competence than students with average to high levels ($F=32,503$; $p<.01$). This is also the case of self-management ($F=17,167$; $p<.01$), knowledge construction and transfer ($F=19,159$; $p<.01$). There are significant differences between the three groups showing low, medium and high autonomy levels. In relation to self-assessment ($F=13,328$; $p<.01$), the group with low autonomy has a lower level of self-assessment that the high and medium groups. There are no significant differences for self-assessment between the medium and high autonomy groups.

Regarding the effect size, as estimated by Cohen (1988), the differences between low and high degree of autonomy are great in the total and in each of the dimensions of the competence of learning, while the differences between low and medium and low and high level of autonomy are low (see Table 5).

Table 5. Effect Size Mean Difference by Level of Autonomy

Variable	Low-Medium	Medium-High	Low-High
Learning competence	-0.45	-0.45	-0.87
Self-management	-0.38	-0.28	-0.63
Knowledge construction	-0.36	-0.46	-0.83
Transfer	-0.32	-0.37	-0.71
Self-assessment	-0.38	-0.17	-0.58

5. Conclusions

Development of the learning competence and autonomy are key factors in lifelong learning. The learning competence enables persons to learn for themselves, manage their own learning, construct knowledge, transfer it and know themselves as apprentices. On the other

hand, developing autonomy is an inherent part of human development, enabling us to make decisions, form our own criteria and act accordingly.

The results of the study confirm the relationship between both constructs, which has implications for education. First of all, it is important to set development of the learning competence as one of the educational objectives for future professionals. This can be done through activities linked to knowledge construction, placing emphasis on searching and organising information and fostering self-assessment through reflection, transfer and applicability of what has been learned. Secondly, it is advisable to foster clear learning situations in which the student can make his/her own decisions under the teacher's supervision to encourage self-assessment of his/her own learning. Activities such as sharing lesson plans with students, keeping them informed through clear guidelines that include objectives, tasks, and evaluation criteria and systematically guiding them in the learning process help to develop this dimension of the learning competence.

Lastly, developing autonomy is linked to an institutional culture that enables and encourages student participation. Personal and career-based guidance programmes must also be developed and respond to today's needs. Drawing up a life project calls for activities that enable people to know themselves and understand their place in today's world. It is important to follow up the project on a regular basis to assess what has been attained and adjust or adapt the objectives.

Basing our opinion on the relationship between the two, education that focuses on developing the learning competence favours development of autonomy. Personal and professional guidance directed to fostering autonomy has positive effects on the learning competence. Proper development of both constructs is vital to lifelong learning.

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