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Motivation as a key factor in lifelong learning

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ABSTRACT

This study aims to determine the predominant motivation among users of the vocational training for employment (VTE) system and to discern whether there are differences according to socio-demographic traits such as gender, age, and employment status. Motivation is a factor that has to be taken into account during any teaching-learning process. The students' interest in the practice and contents will be key for their educational development and the attainment of achievements for their incorporation into the labor market. We carried out a quantitative study based on the survey technique. The sample is obtained through a deliberate sampling, obtaining a total of 390 participants (38.2% of men and 61.8%) involved in training processes at the time of the study or recently completed. The results reveal that the rates of intrinsic and extrinsic motivation are high, especially the former. This indicates that users participate in training guided by the personal satisfaction they perceive, as well as by the feeling of usefulness of what they learn for its transfer to everyday life.

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1. INTRODUCTION

The need to adapt to the volatility of the labor market and the requirements to develop the functions associated with our job position efficiently makes continuous training an evident necessity. Lifelong learning, as an interaction between the environment and the individual, grants the person the tools to exploit their potential, improve their technical and personal skills, or the ability to reorient themselves towards other personal or societal needs [1]–[3]. In this sense, individuals must be the focus of attention since, although the demands may be similar always subject to the labor market and society those attending the training and their learning styles have little in common [4], [5].

UNESCO [6] began to give greater importance by considering its great potential for reducing poverty, creating jobs, and promoting social inclusion. Along this path emerges "vocational training for employment (VTE)," as it is known in Spain, which is considered an investment in human capital, offering training tailored to the needs of companies and individuals seeking to improve their employability. This law [7] proposes a training system that accompanies workers in accessing, maintaining, and returning to employment and their capacity for personal development and professional advancement. In this way, the non-formal training system accommodates unemployed and employed individuals needing or desiring to acquire or enhance skills for better job performance.

Educating in competencies poses a great challenge and still requires specific research to validate the results [8]. This generates a debate in the European Union favoring adapting economic and educational policies [9]. It is about shifting the focus towards the ability to act, intervene, and decide in situations not always

foreseen [10]. Competency-based education promotes tools for active, interdisciplinary, and comprehensive learning in a constantly changing world. Thus, knowledge, attitudes, and skills must be transferable to other areas so that when developed in practice, their consolidation and proper development will be achieved [9]–[11].

According to the definitions, education in competencies becomes complicated in terms of functionality since vacant job positions are specific, as are the tasks to be performed [12], [13]. For this reason, the training proposals of the respective training subsystem are specific and dedicated to a particular sector with key and general competencies. In this way, the user must decide on what to specialize as long as they meet the selection criteria demanded by the organizing entity [14]. While we understand the disposition of the training subsystem, its objectives, and functionality, we also need information about the motivations and interests of the attendees. As Sabrina *et al.* [15] indicates, the main reasons users enter these types of professional training as adults are for professional interests; however, these may change or modify over time.

In this regard, we can refer to the terms of intrinsic and extrinsic motivation, understanding these concepts as the reasons that lead us to perform or make decisions based on whether they are internal, referring to the interest and enjoyment in an activity for its own sake, or external, in which a benefit is expected from the activity being carried out [16]–[21]. Similarly, we can also refer to the concept of self-efficacy, understood as the individual's belief in achieving positive results [22], one of the elements most related to academic achievement [23]–[25], and consequently, with the completion of the training processes that would facilitate their entry into the labor market or the improvement of necessary skills for current job development.

Motivation understood as "a process that emphasizes the achievement of one or more goals, and in which both the initiation and continuity of the activity necessary to achieve the established goals are important" [26] is considered by various authors as one of the predictors of academic success [27]–[31]. Additionally, Expósito-López *et al.* [24] add the participants' involvement in the task as another key element for academic achievement. This issue is confirmed by the studies of Tria *et al.* [32] and Wilson and Stupnisky [33], which found that higher motivation levels lead to better results.

Each user's motivation varies between amotivation, the absence of it, and intrinsic motivation, which is achieved as basic psychological needs are satisfied [34]. Thus, a guiding principle directing participation in training processes will be the individual's needs to fulfil. Qualified young individuals tend to show greater extrinsic motivation for achieving independence and obtaining their own financial resources. This circumstance may lead them to accept precarious or low-qualification contracts to achieve their goals sooner [35]. In contrast, unemployed individuals over 45 years old tend to oppose lowering their working or salary conditions [36].

Some authors doubt extrinsic motivation as a long-term driving force, negatively correlating it with achieving subsequent goals [24]. Conversely, some perspectives consider externally driven interest in achieving set goals as providing greater impetus, positively impacting users and their results [37]. Regarding motivation towards training, various profiles can be found. Sometimes, it is shown immediately, in the short or long term, as being influenced by relationships with others, the feeling of self-efficacy, and interest in the content [38]. However, pedagogical resources and training methodology are essential tools to maintain and increase users' motivation [15], [39]. As education professionals, our duty to improve, refine, and make vocational training more appealing to users is to understand what drives them to want to participate and what they expect to achieve. Therefore, this study aims to determine the predominant types of motivation among system users, allowing us to discern if there are differences based on specific sociodemographic characteristics such as gender, age, employment status, and educational background of the participant.

2. METHOD

2.1. Objectives

The main objective of this research is to determine the predominant type of motivation among users of the VTE system in Spain. To achieve this, the following specific objectives are established:

- Determine if there are differences in the predominant motivation based on sociodemographic traits such as age, gender, and place of residence.
- Examine the predominant type of motivation based on the employment status of VTE users.

2.2. Design

The study design is non-experimental (ex post facto) and was conducted using a descriptive survey research method [40]. For data analysis, descriptive, correlational, and inferential statistics were employed using SPSS v.27 software. Descriptive statistics utilized means (M) and standard deviation (SD). Chi-square was employed for correlational statistics. For inferential statistics, the Kolmogorov-Smirnov (K-S) test was first applied, followed by the non-parametric Kruskal-Wallis (H) and Mann-Whitney (U) tests. In addition to non-parametric inferential analysis, effect sizes were calculated using the coefficient of determination (ER2) [41].

2.3. Participants and y procedure

A simple random sampling comprised of individuals seeking vocational training or former students was conducted. The sample size was calculated using the formula for infinite populations (>10,000 subjects): $\frac{z^2PQ}{E^2}$. Thus, the final sample consisted of 390 subjects, with 38.2% being male and 61.8% female. Sociodemographic traits such as age and place of residence are depicted in Figures 1 and 2. The questionnaires were completed online, using Microsoft Forms, and the participation of users was completely voluntary. Anonymity and confidentiality of responses were preserved at all times.

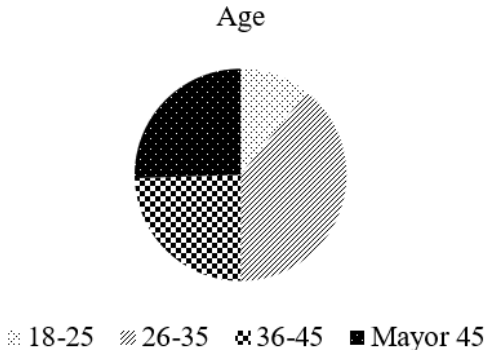

Figure 1. Age of participants

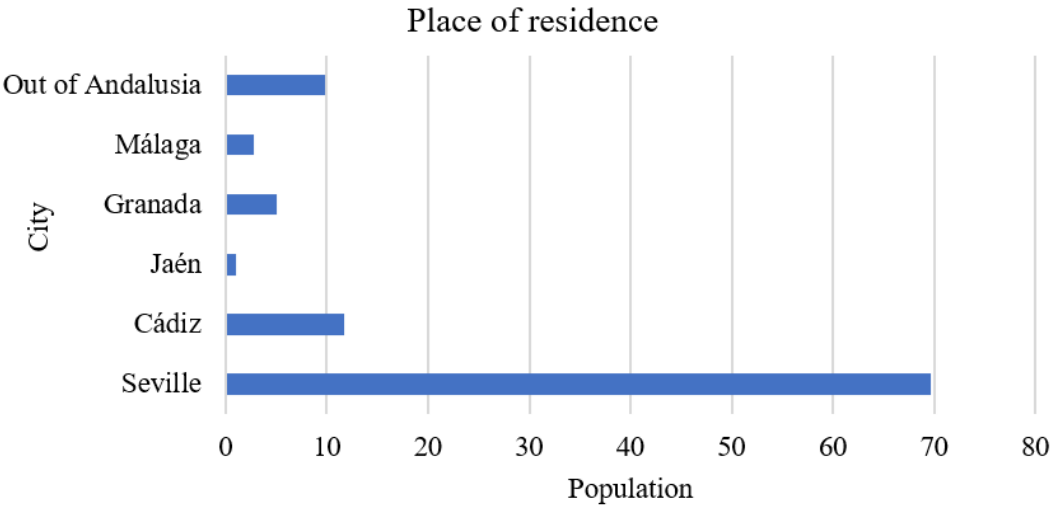

Figure 2. Place of residence of the participants

2.4. Instrument

The questionnaire "participants' motivation in training," created ad hoc, is organized into two sections: one consisting of multiple-choice or binary questions based on sociodemographic data (age, province of residence, and employment status), and another with twelve statements where participants indicate their level of agreement on a Likert scale from 1 to 4 (1: "completely disagree," 2: "disagree," 3: "agree," 4: "completely agree"), regarding the reasons why they decided to participate or request training. To conclude, we will classify the items according to the type of motivation they refer to. Thus, items 2, 3, 4, 8, 10, and 11 refer to intrinsic motivation, while items 1, 5, 6, 7, 9, and 12 refer to extrinsic motivation.

It presents a reliability of α=0.857. To assess construct validity, exploratory factor analysis was used with the principal component's method, after verifying the adequacy of sampling with the Kaiser-Meyer-Olkin test (Table 1) and Bartlett's sphericity test (Table 2). The instrument was also subject to expert judgment based on the criteria of conciseness, precision, and clarity.

Table 1. Exploratory factor analysis

Dimension	KMO	Bartlett's sphericity test			Saturation coefficients
		χ2	DF	Sig.	
Motivation	.614	238.101	66	.000	.643; .727; .604; .707; .689; .611; .804; .666; .757; .502; .634; .578

Abbreviations: χ2=chi-square; DF=degrees of freedom; sig.=signification

Table 2. Kaiser-Meyer-Olkin test and Bartlett's sphericity test

% variance	Stress values and goodness-of-fit measures					
	Normalized raw stress	Stress-I	Stress-II	S-Stress	DAF	Tucker
49.636	.04793	.21893	.46774	.07979	.95207	.97574

3. RESULTS AND DISCUSSION

We start from the premise that this is a non-normal population after performing the Kolmogorov-Smirnov test and obtaining a significance of 0.000. Based on this test, the corresponding non-inferential statistical tests are performed, as well as descriptive and correlational analyses. In this case, the Mann-Whitney U test and Kruskal-Wallis H test were used for the inferential analysis, means and standard deviations for the descriptive analysis and Spearman's statistic for the correlations.

3.1. Descriptive statistics

Many items show high deviations, indicating a lack of unanimity in responses (Table 3). Therefore, understanding what statistical differences appear based on specific sociodemographic characteristics is of greater interest. Additionally, high means (3.86; 3.82; 3.60) are found in items related to intrinsic motivation for employed individuals. However, unemployed individuals show higher scores in items related to job seeking (3.19) or improving family conditions, highlighting their extrinsic motivation (3.77).

Table 3. Descriptive statistics for means and standard deviation

No	Item	Employed people		Unemployed people	
		M	SD	M	SD
1	I continue my education because I care about what other people think.	1.60	.935	1.77	.938
2	I feel good about myself when I decide to continue my education.	3.86	.351	3.58	.750
3	I make the same effort even if I do not get the desired results.	3.26	.828	3.37	.743
4	I can overcome the difficulties of training education.	3.34	.745	3.31	.805
5	My interest increases with the diversity of training materials and modalities of training.	3.60	.639	3.60	.693
6	My family encourages me to participate in training processes.	3.35	.919	3.26	.893
7	My main motivation is to find a new job in my sector or to be promoted within my sector	3.18	.0896	3.79	.457
8	I train to improve my employment situation and thus improve my family's conditions.	3.48	.762	3.77	.571
9	I take the courses because they are free.	2.78	.996	3.15	1.092
10	I completed the training because I am interested in it.	3.82	0.438	3.79	.572
11	I take the training to be able to solve, by myself, the challenges I face in my job daily.	3.66	.688	3.58	.750
12	The training format and content affect my interest in it.	3.30	.614	3.31	.875

Abbreviations: M: mean (scale 1 to 4); SD: standard deviation

Despite obtaining high scores in items related to intrinsic and extrinsic motivation, the scores related to inherent motivation consistently remain high, never falling below “agree.” This data aligns with the results presented by Kotera *et al.* [42], which find that intrinsic and extrinsic motivation are complementary. Consequently, it seems that there is a positive predisposition toward participation in training activities when they interest the learner [33], [34]. Based on the results presented above, we can conclude that what motivates individuals to participate in training processes is primarily the personal satisfaction they feel when participating, especially valuing the utility of the learning content and its transferability to their lives, which is consistent with the tenets of self-determination theory [43]–[45]. Thus, the personal satisfaction felt in professional improvement is one of the strongest indicators of intrinsic motivation [26]. Related to personal satisfaction is the support from the immediate environment (family, coworkers, bosses) [46], in which our study also reveals high scores. Unsurprisingly, both motivations receive high scores, as intrinsic and extrinsic motivation are part of the learning process. Participants would not reach any destination with only one of the two types [43], [47].

3.2. Significant differences in users' motivation based on gender

Regarding the possible relationships between scores and the sociodemographic characteristics of our participants, we can conclude that concerning gender, it is mainly men who score high in intrinsic motivation regarding the item referring to seeking improvement in family well-being. Undoubtedly, behind this consideration lies gender stereotypes associated with a hetero-patriarchal culture in which the male head of the household is the economic provider and guarantor of family welfare [48]. In this sense, men have attributed the role of providing resources to the family. However, women score higher in personal well-being and interest in education, which aligns with Deci and Ryan's self-determination theory [43]. We conducted the Mann-Whitney U test to determine the presence of significant differences based on gender. Significant differences, albeit with small effect, were found only in items 2 (“I feel good about myself when I decide to continue my education”) (U=0.036) and 10 (“I complete the courses because I am interested in them”) (U=0.005), with women scoring higher, with 95% and 99% confidence respectively (C=0.199, p=0.045; C=0.293, p=0.003) [20]–[25].

3.3. Significant differences in users' motivation based on employment status

After conducting the Mann-Whitney U test, significant differences were found for items 2 (“I feel good about myself when I decide to continue my education”), 7 (“My main motivation lies in finding a new job in my sector or advancing within it”), 8 (“I undergo training to improve my job situation and thus improve my family's conditions”), and 9 (“I take the courses because they are free”) (U=0.033; 0.000; 0.018 and 0.028 respectively). While employed individuals scored higher in the first item, unemployed individuals scored higher in the rest. These score differences are of small, medium, and small effect sizes, respectively.

For the first three items, these statements can be confirmed with 99% confidence, obtaining correlation values of C=-0.236, p=0.017; C=0.398, p=0.000; C=0.211, p=0.033 respectively. It is possible to observe differences in main motivations; however, we highlight again the high scores in personal well-being that users obtain from continuing their education in the case of employed individuals. This could be due to seeking advancement from the comfort and security of a stable work situation. The fact that employed individuals show a higher level of intrinsic motivation regarding the feeling of personal satisfaction from education, while unemployed individuals show a higher level of extrinsic motivation, is not surprising as the search for a new job and improving family conditions had a direct relationship for them. This reflects the progress discussed in Deci and Ryan's self-determination theory [43]. The optimism of finding a subsequent change in their lives through education seems to be directly related to a higher likelihood of finding employment for unemployed individuals, as indicated by Niati *et al*. [49].

3.4. Significant differences in users' motivation based on age

For this analysis, the Kruskal-Wallis H test was used, finding significant differences H=0.012 for item 4 (“I grow from the challenges of education”), with higher scores in this item for individuals aged between 36 and 45 compared to users aged between 18 and 25 who obtained the lowest scores. There is also a small effect in the significant difference of this item. This statement can be made with 99% confidence due to the significance obtained for this element C=0.270, p=0.006. The relationship between high intrinsic motivation scores in participants aged 36 and 45 regarding overcoming potential problems through education could indicate the confidence adults within this age range have in training processes as a strategy for improvement and professional development. Faakye [50] also points out the difference in motivation concerning the age of the users of the training.

3.5. Significant differences in users' motivation based on educational background

Considering the characteristics of this category and the data that comprise it, the Kruskal-Wallis H statistical test is carried out. The data indicate no significant differences in the results can be extracted based on the user's previous training. Therefore, no effect size is calculated for this variable.

3.6. Correlations between items

Knowing the existence of significant differences, we aimed to determine the possible correlations established between the items of this dimension by calculating the Pearson correlation coefficient. Table 4 shows those items with a significant correlation, allowing us to detect relationships between items regarding user motivation. We found that both types of motivation are closely related. The highest intensity correlation (C=0.526) appears between items 4 (“I grow from the challenges of education”) and 5 (“My interest increases with the diversity of materials and training modalities”), indicative of extrinsic and intrinsic motivation, respectively. The same occurs between “My interest increases with the diversity of materials and training modalities” (item 5) and “I feel good about myself when I decide to continue my education” (item 2), with the next highest correlation value (C=0.503). Additionally, there is a high correlation (C=0.412) between items 4 (“I grow from the challenges of education”) and 2 (“I feel good about myself when I decide to continue my education”), indicators of intrinsic motivation.

Table 4. Correlations between items, Spearman significance (bilateral)

No	Item	1	2	3	4	5	6	7	8	9	10	11	12
1	I continue my education because I care about what other people think.	1					.224 .024						
2	I feel good about myself when I decide to continue my education.		1	.307 .002	.412 .000	.503 .000					.301 .002		
3	I make the same effort even if I do not get the desired results.		.307 .002	1	.359 .000	.274 .005						.328 .001	
4	I can overcome the difficulties from the training education.		.412 .000	.359 .000	1	.526 .000						.350 .000	
5	My interest increases with the diversity of training materials and modalities of training.		.503 .000	.274 .005	.526 .000	1				.209 .035	.234 .018		
7	My main motivation is to find a new job or be promoted within my sector.						.244 .014	1	.443 .000				
8	I train to improve my employment situation and thus improve my family's conditions.							.443 .000	1			.310 .002	
9	I take courses because they are free of charge.					.209 .035				1			.359 .000
10	I completed the training because I am interested in it.		.301 .002			.234 .018					1	.254 .010	.234 .018
11	I take the training to be able to solve, by myself, the challenges I face in my job daily.		.409 .000	.328 .001	.350 .000				.310 .002		.254 .010	1	

4. CONCLUSION

As there were not many significant differences in the scores obtained according to employment status, we can infer that the fact of being working or not does not seem to influence aspects related to the motivation to participate in training processes. In particular, within the group of workers, it may be that the feeling of having a wide range of competences as a result of experience throughout their professional career is sufficient to overcome the difficulties encountered in the workplace. Similarly, the low scores obtained by younger users may indicate a relationship with their limited previous work experience.

The conclusions are not surprising, as we see that the search for family improvements occurs in all categories together with the feeling of personal satisfaction. It is legitimate and even motivating for educators that individuals seek personal and professional improvements in life skills training. A further line of work based on interviews is proposed to find out more about the perceptions of training users. Working with only one of the groups 'employed' or 'unemployed' will help to focus and deepen the information obtained.

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