

Article

Motivation for Learning among Students Undertaking Basic Vocational Training and University Studies within the Context of COVID-19

Eva María Olmedo-Moreno , Jorge Expósito-López , José Javier Romero-Díaz de la Guardia ,
María Dolores Pistón-Rodríguez  and Noelia Parejo-Jiménez * 

Department of Research Methods and Diagnosis in Education, University of Granada, 18071 Granada, Spain; emolmedo@ugr.es (E.M.O.-M.); jorgeel@ugr.es (J.E.-L.); jjromero@ugr.es (J.J.R.-D.d.l.G.); lolapiston@ugr.es (M.D.P.-R.)

* Correspondence: noeliaparejo@ugr.es

Abstract: The main aim of the present study is to adapt the academic motivation scale (AMS) for use within basic vocational training and university students. Another aim was to analyze the characteristics of the different dimensions of motivation, whilst also examining existing significant differences between the two studied educational stages. For this, we conducted exploratory and confirmatory factor analysis, alongside descriptive and inferential analysis of student responses. One of the main findings was that a reduced version of the AMS, made up of five dimensions and 21 items, demonstrated good internal consistency and fit. Further, we observed that intrinsic motivation is higher in university students, whilst extrinsic motivation is higher during the basic vocational training stage. In addition, we uncovered significant differences between both educational stages with regards to the pleasure felt by students when they better themselves, learn new things and attend the educational center. Differences also emerged in relation to the importance attributed by students to achieving a good and well-paid job. With regards to amotivation, significant differences only exist in relation to the motives students have for attending classes and decision making about whether to continue studying the course they are enrolled on. Finally, we have analyzed how the variables sex, age, prior work experience and volunteering experience, and average grade influence the motivation of students undertaking basic vocational training and university students.

Keywords: basic vocational training; self-determination theory; self-regulated learning and university studies



Citation: Olmedo-Moreno, E.M.; Expósito-López, J.; Romero-Díaz de la Guardia, J.J.; Pistón-Rodríguez, M.D.; Parejo-Jiménez, N. Motivation for Learning among Students Undertaking Basic Vocational Training and University Studies within the Context of COVID-19. *Sustainability* **2021**, *13*, 3268. <https://doi.org/10.3390/su13063268>

Received: 30 January 2021

Accepted: 12 March 2021

Published: 16 March 2021

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

With regards to teaching methodology, we currently find ourselves involved in an unprecedented process of transformation due to the circumstances provoked by confinement. This has led to public protection measures against COVID-19, turning us towards digital means for the continuation of academic learning. Today, more than ever, one of the aims of education must be to shape autonomous students who are active in their learning. In other words, students must be capable of conducting their own self-regulated learning. This learning is understood as a series of proactive processes which students are able to use to set goals, choose and develop strategies to meet goals, and self-control their own effectiveness. Nonetheless, it is important to highlight that for the development of this type of learning, good motivation, metacognition, and an assessment in which the student is able to give responses adjusted to the feedback they receive is required [1–5].

In the present study we focus on analyzing the motivation of students undertaking basic vocational training (hereon referred to as BVT) and university studies. Academic motivation consists of the evaluation made by students about different aspects of the teaching–learning process (content, methods, etc.) as a function of their needs, goals, inten-

tions, aspirations, interests, etc. All of these aspects result in specific actions, orientations, and behaviors being engaged in towards oneself [6].

The two most commonly used motivational theories in research studies in this field are self-determination theory (hereon referred to as SDT) and the motivational self-system [7]. Throughout the last few decades, various international studies have been conducted, analyzing motivation in adolescents and adults in diverse contexts based on the SDT [8].

According to the SDT, "an understanding of human motivation requires a consideration of innate psychological needs for competence, autonomy and relatedness" [9] (p. 277). In other words, satisfaction of these basic psychological needs will positively impact upon individual wellbeing and, therefore, personal learning. Need satisfaction will occur when students are able to make autonomous decisions about their own learning. This will also lead them to feel competent within the teaching-learning setting and be open to the experiences that unfold within it [10].

From this perspective, the SDT defines motivation as a multidimensional construct (composed of three dimensions) which can be regulated in different ways along a continuum running from lower to higher levels of self-determination or autonomy. Higher levels of self-determination go hand in hand with greater intrinsic motivation. In the academic setting, this refers to the development of learning because the individual experiences enjoyment or pleasure or has a personal interest in the learning taking place. Lower self-determination goes hand in hand with greater extrinsic motivation. In this case, learning tasks are performed in order to achieve or avoid outcomes that are external to the individual (obtain a reward, avoid undesirable situations, social acceptance, etc.). Within extrinsic motivation, we find the following motivational types: Integrated regulation, identified regulation, introjected behavioral regulation, and externally regulated behavior. The motivational types listed above are in order, with the first and last being characterized by higher and lower levels of self-determination, respectively [11–13].

The third dimension proposed by the SDT is "amotivation". This is defined as a lack of motivation due to unrealistic expectations. It is different to the concept of demotivation, which refers to the loss of motivation for causes that are external to the individual [14,15].

Given that presented above, it is important that we, as educational professionals, promote the self-determination of students, thus encouraging cooperation among them, effort, and improvement [16]. This is especially true in those students, such as those undertaking BVT and university studies, who are preparing themselves to join the world of work. Intrinsic motivation is not only important for enabling students to finish their studies with the greatest possible success but, also, to perform their job well and engage in self-regulated learning in all aspects (social, personal, occupation, and academic) of life. In other words, individuals must be fully shaped to be able to learn throughout life. In this sense, many studies have confirmed that intrinsic motivation is associated with better academic performance and later job satisfaction [17,18]. This gives rise to organizational learning settings which are committed and inherent to contemporary smart cities.

The innovation of the present study lies in jointly analyzing the characteristics, similarities, and differences of the motivation of students close to entering the world of work. This is done according to the educational stage and from the SDT theory, describing the intrinsic motivation, extrinsic motivation, and demotivation of the students at each of these educational levels. All of this, in the current context of COVID-19, which is undoubtedly influencing the way of developing teaching-learning processes and student motivation, as some studies have shown [19,20].

We analyze the AMS scale behavior within the study sample in a specific novel context in which this scale has never been tested before (COVID-19), we established differences in the motivation reported by BVT and university students via trend analysis, taking into account the existing correlation between both variables.

Specifically the motivation of these students is analyzed according to different dependent variables of interest such as sex, age, average grade, prior work experience and volunteering experience, describing the relationships between them and how each one

influences motivation of these students in educational context. Moreover, it is verified how university students have a greater intrinsic motivation and how the variables analyzed contribute to it. This allows us to extrapolate results to BVT students, whose motivation has been scarcely studied, and to offer the education professional information that helps them to give an educational response as appropriate as possible. This becomes especially relevant if one takes into account the scarcity of educational research aimed at analyzing the educational stage of BVT, especially in relation to motivation, where we only found four documents in the main scientific research databases (three documents in Scopus and one document at Web of Sciences).

We consider that it is very important to advance in the study of motivation, especially in the educational stage of BVT, not only to obtain better results in the academic performance of students but also in order to promote the inclusion of people in today's society.

That is why this study asks the following research questions: Are there differences in motivation between BVT students and university students, both close to their incorporation into the world of work within the context of COVID-19? In what aspects of motivation do both groups of subjects differ? Does the motivation of these students differ according to the independent variables: Sex, age, average grade, prior work experience, and volunteering experience?

To answer these questions, the general objective is to analyze the motivation (extrinsic, intrinsic and amotivation) for learning that BVT and university students have, close to their incorporation into the world of work, within the context of COVID-19.

As specific objectives we propose: (1) Adapt the academic motivation scale (hereon referred to as AMS) for use in a sample made up of BVT and university students who will soon be joining the occupational setting; (2) Describe the characteristics of the different dimensions of motivation in BVT and university students whose learning processes have been impacted by the COVID-19 pandemic; (3) Analyze existing differences between BVT and university students in relation to the different dimensions making up motivation for learning and taking into account the independent variables: Sex, age, average grade, prior work experience and volunteering experience.

2. Materials and Methods

2.1. Participants

The sample is formed by 240 BVT students and 275 university students from the province of Granada, Spain. Of these students, 29.7% are male and 70.3% are female. A total of 40.7% of participants are aged between 16 and 19 years, 51.2% are aged between 20 and 29 years, 4.8% are aged between 30 and 39 years, 2.8% are aged between 40 and 49 years, and 0.8% are aged between 50 and 59 years. A total of 92.2% have Spanish nationality and the remaining 7.8% is distributed between 15 different nationalities, with the most prominent of these being Romanian, Bolivian, and Chilean.

Of the 240 students undertaking BVT, 107 are enrolled on a middle level course and 133 are enrolled on a high-level course. Of the 275 university students, 210 participants are undertaking degree studies, 24 are studying a master's and 41 are undertaking doctoral studies. The main professional groups to which sampled participants belong are health (27.2%) and education (53.3%). With regards to the average mark obtained by participants in the academic year prior to the year in which data was collected, 63.5% of students reported having obtained a score equivalent to "First-Class Honors" and 16.3% of students stated having obtained a good passing grade.

In addition, 52% of the sample reported having had a job at some point, relative to 48% who stated never having worked. The majority had held a job for only a short period of time with 24.8% having worked in a job for between 1 and 24 months, 5.1% for between 25 and 60 months, 3.8% for between 61 and 120 months, and 3% for between 121 and 336 months. The job type reported was highly varied, with the highest percentage belonging to jobs within the hospitality sector (waiting jobs) and the informal education sector (monitors of extra-curricular, leisure and free-time activities, etc.).

Finally, 33.6% of participants stated having engaged in volunteering, relative to 66.4% who had not. The majority of volunteering engaged in lasted between 1 and 24 months (14.4%), followed by 25 and 48 months (3.4%), and between 49 and 144 months (1.8%). With regards to the type of volunteering, most activities were performed through associations and NGOs.

2.2. Design, Procedure and Instrument

The present study followed a descriptive, exploratory, and cross-sectional design. It was carried out using the academic motivational scale (hereon referred to as AMS). This instrument was originally designed and validated in French by Vallerand, Blais et al. (1989), who administered it to 746 Canadian university students [21]. Following this, Vallerand et al. (1992) validated it in English with a sample of university students [22]. Finally, Núñez et al. (2005) translated the scale into Spanish and validated it with a sample of university students [23]. A number of years later, it was again validated with secondary school students [24]. The present study seeks to validate the instrument within a sample of 240 BVT students and 275 university students, who are currently experiencing transformations in their learning processes due to the COVID-19 pandemic.

The AMS is comprised of 28 items divided between the following seven dimensions: Amotivation, external regulation, introjected regulation, identified regulation, intrinsic goals to experience stimulation, intrinsic goals for knowledge, intrinsic goals for achievement, academic self-concept, and self-esteem. Responses are provided along a Likert type scale with values ranging from 1 = Does not apply at all, and 7 = Totally applies.

With regards to the procedure followed to carry out the study, educational centers were first contacted. For this, they were sent a document in which the study aims were explained and the questionnaire to be administered to students was provided. Once the educational centers agreed to and approved documentation, we proceeded to data collection. Data collection was conducted both in person and digitally due to the measures in place as a result of the COVID-19 pandemic, with these measures determining data collection processes in the selected centers. It is important to highlight that, during this phase, students gave informed consent to participate in the study. This assured total confidentiality and anonymity of collected data, following the protocol presented and approved by the ethical committee of the university (reference number: 1678/CEIH/2020) at all times.

With regards to the analysis of obtained data, we started by conducting exploratory factor analysis (hereon referred to as EFA) to determine whether the AMS was well adjusted to the selected sample. In other words, we analyzed construct validity of the scale through the method of principal component analysis with varimax rotation ($r > 30$), perusing resultant Cronbach α values. In addition, we examined correlations between the factors obtained through inferential analysis of Spearman Rho values. Once factors were established, we performed confirmatory factor analysis (hereon referred to as CFA) and analyzed model fit indices.

Following this, we carried out an analysis of central tendency by establishing regression equations in relation to the nature of different motivational factors as a function of educational level (BVT and university). This analysis considered the subscales that make up the instrument. Next, we conducted a descriptive analysis of the means, modes, standard deviations, and variance of responses given by study participants. We then conducted inferential analysis through the Mann–Whitney U statistic, in which we examined significant differences between BVT and university students regarding specific items. This provides a more complete view of the way in which motivation behaves as a function of educational stage.

We also analyze the existing correlations between motivation and the dependent variables sex, age, work experience, volunteer experience and average grade for the academic year; as well as the differences in motivation depending on them. To do this, we

have used the inferential statistics of the Kruskal–Wallis Test, Mann Whitney’s U, and Spearman’s Rho.

Finally, it is important to highlight that data analysis was carried out using the quantitative data analysis software IBM SPSS® version 25.0, IBM® SPSS® Amos and Microsoft Excel, Spain.

3. Results

We started by conducting exploratory factor analysis (EFA) in order to analyze the performance of the motivational scale within the study sample (BVT and university students). The scree plot (Figure 1) shows that the appropriate number of factors or dimensions between which scale items should be divided is five.

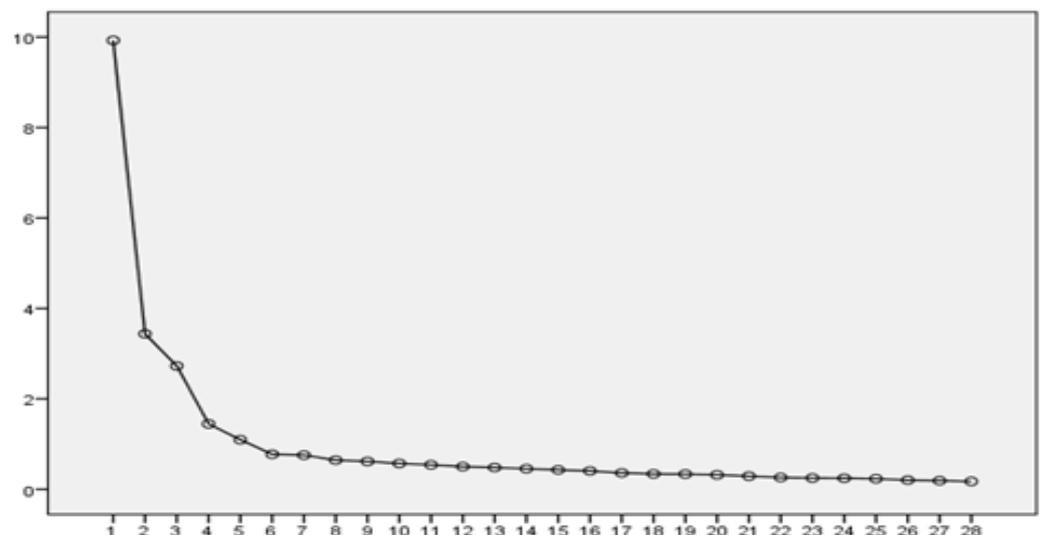


Figure 1. Scree plot.

Results obtained from the EFA demonstrate that the correlations observed in the matrix are appropriate given that values for the Kaiser–Meyer–Olkin test for sampling adequacy ($KMO = 0.926$; $p < 0.5$) and Bartlett sphericity test (8873.373; $df = 378$ and $p = 0.000$ [< 0.05]) are acceptable. Further, all items are deemed to be acceptable given that the factor loadings for all of them were optimal, with no values lower than 0.400 being obtained. Following analysis of the internal consistency of the five dimensions in which the scale was divided, we can see that Cronbach α values of between $\alpha = 0.733$ and $\alpha = 0.901$ were produced (Table 1). These are optimal values which indicate reliability of the sub-scales and suggest that all of their items measure the same theoretical construct [25].

Once the outcomes of these tests were revealed, we moved on to analyze the correlations produced between the different subscales established via EFA. For this, we examined the Spearman Rho statistic. We obtained positive correlations between factors 1, 2, and 5, with specific values falling between $\rho = 0.538$ and $\rho = 0.687$ ($p < 0.01$). This makes sense when we consider that these factors are related with intrinsic motivation. Beyond this, we can observe that factor 3 produces lower values, although it is correlated with factors 1 and 2, with specific values being between $\rho = 0.306$ and $\rho = 0.405$ ($p < 0.01$). This is also logical given that this subscale is related with extrinsic motivation. This weak correlation, and sometimes even inverse, has also been shown by other studies [26]. Finally, negative correlations existed between the aforementioned subscales and that pertaining to factor 4. Specifically, values ranged between $\rho = -0.054$ and $\rho = -0.356$ ($p < 0.01$), which is somewhat logical when we consider that this factor refers to student amotivation.

Table 1. Factors pertaining to the academic motivation scale (AMS) following exploratory factor analysis (EFA).

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Item 6	0.638				
Item 7	0.723				
Item 13	0.577				
Item 14	0.698				
Item 20	0.701				
Item 21	0.757				
Item 27	0.677				
Item 28	0.793				
Item 2		0.711			
Item 3		0.715			
Item 9		0.648			
Item 10		0.639			
Item 16		0.665			
Item 17		0.605			
Item 23		0.699			
Item 24		0.458			
Item 25		0.564			
Item 1			0.840		
Item 8			0.847		
Item 15			0.775		
Item 22			0.880		
Item 5				0.825	
Item 12				0.773	
Item 19				0.803	
Item 26				0.825	
Item 4					0.792
Item 11					0.796
Item 18					0.549
Cronbach Alfa	$\alpha = 0.901$	$\alpha = 0.896$	$\alpha = 0.889$	$\alpha = 0.842$	$\alpha = 0.733$

Following completion of EFA, we conducted confirmatory factor analysis (CFA) through structural equation models (SEM) formed by five factors and their respective items, previously grouped via EFA. With regards to model fit outcomes, we obtained a significant Chi-squared value ($X^2 = 1602.076$; $df = 345$; $p = 0.000$), an incremental fit index (IFI) of 0.856 (<0.90), normalized fit index (NFI) of 0.823 (<0.90), confirmatory fit index (CFI) of 0.855 (<0.90) and root mean square error of approximation (RMSEA) value of 0.084. This highlights that the values obtained are not optimal. For this reason, we conducted an analysis of the standardized regression weights. Based on these outcomes we eliminated items 3, 7, 10, 17, 21, and 24 for being very lowly correlated with their factors (correlations of lower than 0.644). Once this was completed, we repeated CFA, obtaining significant Chi-squared outcomes ($X^2 = 733.493$; $df = 204$; $p = 0.000$), an IFI of 0.923 (>0.90), NFI of 0.897 (<0.90), CFI of 0.923, and an RMSEA value of 0.071. These values do suggest optimum fit of this model, composed of five factors, within the study sample (Figure 2). With regards to internal consistency of the subscales, Cronbach α estimations were repeated for the factors established following the performance of CFA. The following factors were obtained: $\alpha = 0.890$ (factor 1) and $\alpha = 0.906$ (factor 2). These values are acceptable.

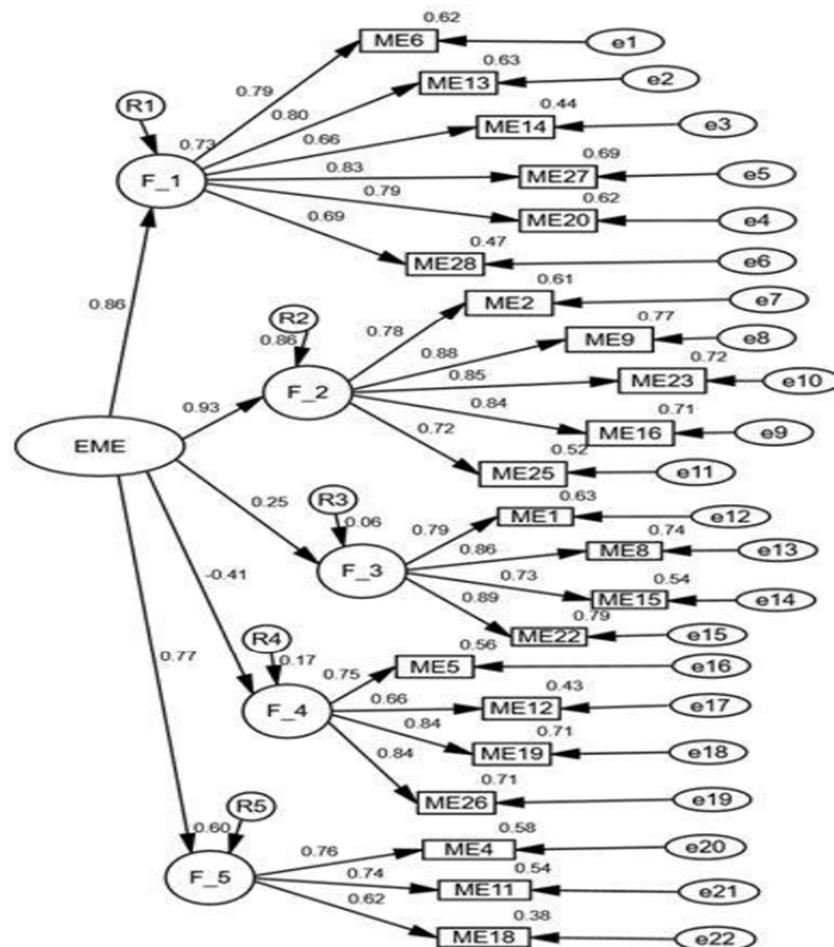


Figure 2. Structural model produced from confirmatory factor analysis (CFA).

Once scale fit within the sample was analyzed, we proceeded to analyze trends with regression equation and R^2 of the different motivational dimensions, as estimated according to established subscales, within the BVT and university educational stages (We have previously verified that there is a correlation between the different dimensions of motivation and the educational stages with values between $\rho = -267$, $p = 0.000$ y $\rho = 361$, $p = 0.000$). Afterwards, we have proceeded to analyze response trends with regression equation and R^2 (Figure 3).

As observed in the trend analysis factors 1, 2, and 5, which are related with intrinsic motivation, we can conclude that higher values are obtained in relation to the university ambit relative to BVT. With regards to factor 3, pertaining to extrinsic motivation for achieving goals, stronger outcomes were obtained in relation to the BVT stage. More concretely, when we analyze existing differences in the various items between BVT and university students, we find differences to be significant in relation to 16 of these items (three factor 1 items, all (four) factor 2 items, all (four) factor 3 items, one factor 4 item and two factor 5 items).

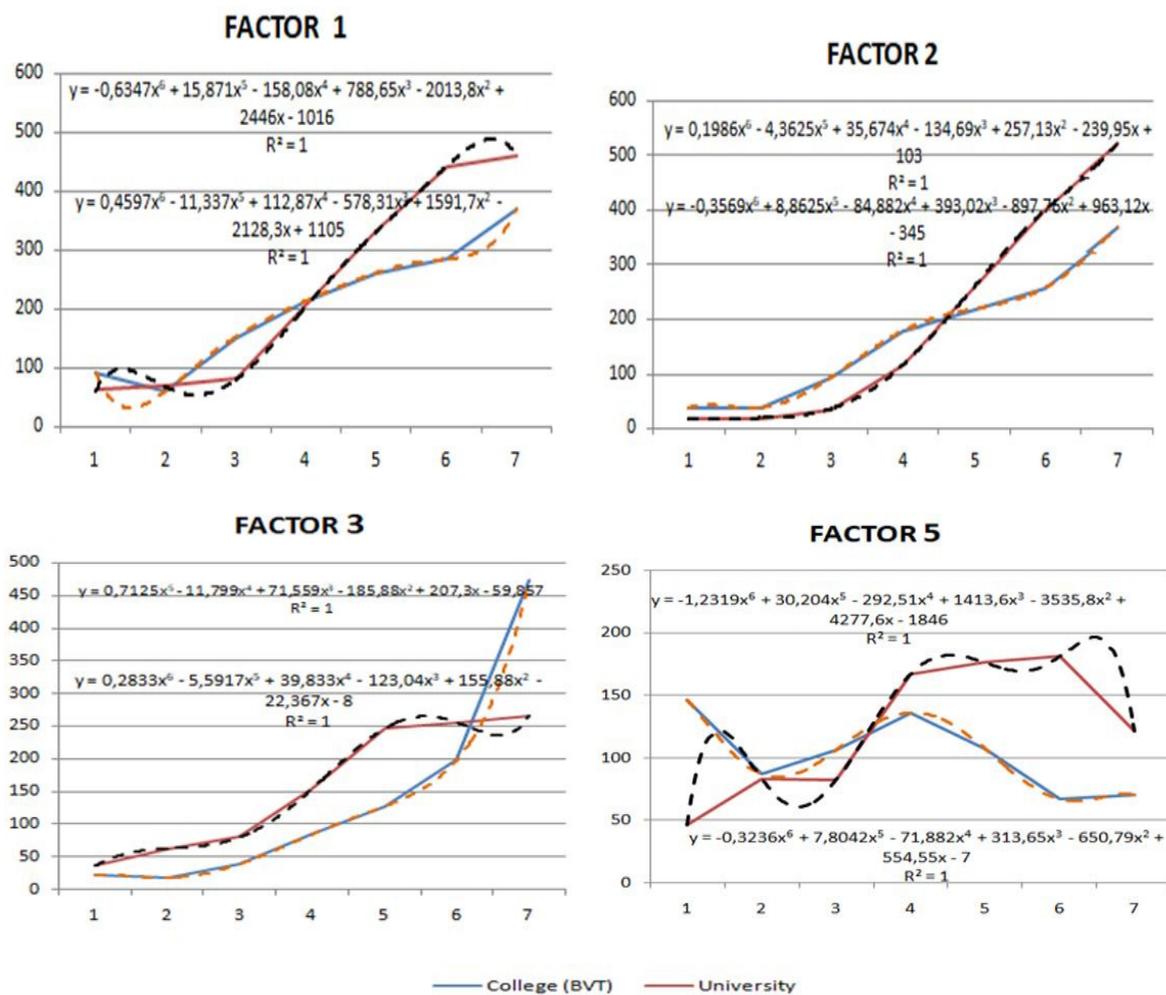


Figure 3. Response trends pertaining for the different factors of the motivation scale within basic vocational training (BVT) and university students, polynomial trend line, regression equation and R^2 .

Behind this, with the aim of examining the responses given by students to the different items, we conducted a descriptive analysis which included estimation of means, standard deviations, and variance. Further, it was confirmed, via the Kolmogorov–Smirnov test, that data pertaining to the two groups (BVT and university students) did not follow a normal distribution with a value of $p = 0.000$ (<0.05) being produced. In addition, the Levene test indicated a p -value > 0.05 in only some groups. Thus, the inferential Mann–Whitney Ustatistic was employed, with outcomes showing significant differences between the different educational stages in relation to 16 of the items (p -value < 0.05) (see Table 2).

When we focus on mean responses, we can see that responses given in reference to factors 1, 2, and 5, all of which pertain to intrinsic motivation, produced values that range between 3.10 and 6.05. These are highly similar to the average values given in relation to factor 3, which pertains more to extrinsic motivation and whose mean values ranged between 4.80 and 5.97. In addition, students' responses collected in relation to factor 4, which pertains to amotivation, obtained averages that ranged between 1.61 and 3.24.

Table 2. Descriptive analysis of responses given to scale items and significant differences between responses given by BVT and university students.

Items	Educational Level	M	SD	V	Sig.
F1-I.6. For the pleasure I feel when I better myself academically	BVT	4.73	1.85	3.44	0.000 *
	University studies	5.40	1.57	2.46	
F1-I.13. For the pleasure I feel when I achieve my personal goals	BVT	5.47	1.61	2.62	0.066
	University studies	5.81	1.28	1.64	
F1-I.14. Because I feel important when I do class tasks well	BVT	4.55	1.89	3.59	0.066
	University studies	4.85	1.79	3.22	
F1-I.20. Because I feel good when I successfully complete difficult activities	BVT	4.95	1.66	2.78	0.000 *
	University studies	5.48	1.5	2.25	
F1-I.27. Because classes make me feel good when I try to better myself	BVT	4.68	1.75	3.08	0.000 *
	University studies	5.21	1.54	2.39	
F1-I.28. Because I want to prove to myself that I can complete my studies	BVT	5.43	1.73	3.01	0.087
	University studies	5.23	1.72	2.98	
F2-I.2. Because I like to learn new things	BVT	5.52	1.39	1.94	0.001 *
	University studies	5.91	1.18	1.41	
F2-I.9. For the pleasure I feel when I learn new things that I didn't know before	BVT	5.30	1.59	2.54	0.001 *
	University studies	5.80	1.25	1.56	
F2-I.16. For the pleasure I feel when learning about topics that interest me	BVT	5.31	1.67	2.81	0.000 *
	University studies	5.95	1.17	1.38	
F2-I.23. Because my studies enable me to keep learning interesting things	BVT	5.52	1.58	2.52	0.000 *
	University studies	6.05	1.24	1.54	
F2-I.25. Because I like to read about topics that interest me	BVT	4.90	1.70	2.91	0.000 *
	University studies	5.45	1.43	2.05	
F3-I.1. Because it is important to find a well-paid job	BVT	5.80	1.47	2.18	0.000 *
	University studies	4.8	1.55	2.41	
F3-I.8. To get a better job position	BVT	5.97	1.44	2.09	0.000 *
	University studies	5.48	1.56	2.44	
F3-I.15. Because I want to "live well" once I finish my studies	BVT	5.91	1.48	2.20	0.000 *
	University studies	5.26	1.60	2.57	
F3-I.22. To be able to get a better salary	BVT	5.83	1.51	2.30	0.000 *
	University studies	4.95	1.72	2.98	
F4-I.5. I honestly do not know, I think that I am wasting time at college/university	BVT	2.35	1.83	3.38	0.493
	University studies	2.29	1.62	2.64	
F4-I.12. I used to have good reasons for going to college/university, know I ask myself whether it is worth continuing	BVT	2.72	1.96	3.86	0.002 *
	University studies	3.24	2.04	4.16	
F4-I.19. I don't know why I go to college/university and I honestly don't care	BVT	1.95	1.60	2.58	0.062
	University studies	1.61	1.19	1.42	
F4-I.26. I don't know, I don't understand what I am doing at college/university	BVT	1.89	1.58	2.50	0.381
	University studies	1.71	1.39	1.94	
F5-I.11. Because for me, college/university is fun	BVT	3.10	1.86	3.40	0.000 *
	University studies	4.29	1.66	2.77	
F5-I.18. For the pleasure I feel when I take part in debates with interesting teachers/lecturers	BVT	4.13	1.96	3.85	0.005 *
	University studies	4.63	1.83	3.35	
F5-I.4. Because I really like attending class	BVT	3.66	1.84	3.40	0.000 *
	University studies	5.19	1.34	1.81	

Note 1: M, mean; SD, standard deviation; V, variance; Sig = p -value = 0.05. There are significant differences between both educational stages when Sig = p value < 0.005 (*).

Furthermore, we have analyzed the significant differences existing in the dependent variable sex, prior work experience and volunteering experience. Regarding the differences in the dimensions of motivation as a function of the variable "sex", in the BVT stage we have been able to verify that there are significant differences in factor 1 regarding intrinsic motivation for the pleasure of achieving goals ($p = 0.000 < 0.05$) being better valued by women. In the university stage there are significant differences in factor 2 regarding the intrinsic motivation for the pleasure felt when performing certain internal activities to the subject ($p = 0.031 < 0.05$) being higher in men than in women; and in factor 5 referring to

intrinsic motivation for doing tasks external to the subject and with other people that make them feel good ($p = 0.000 < 0.05$) being higher in men than in women.

In addition to this, if we do a joint analysis of motivation based on the sex variable for both educational stages, we have been able to verify that there are significant differences in intrinsic motivation for the pleasure of achieving goals (factor 1 $p = 0.009 < 0.05$), being better valued by women; and in extrinsic motivation or achieve goals (factor 3 $p = 0.034 < 0.05$) being better valued by men.

Furthermore, motivation differs depending on prior work experience or volunteering experience. Regarding prior work experience, in the BVT stage there are no significant differences. In the university stage, there are significant differences in factor 3 referring to extrinsic motivation and in factors 2 and 5 referring to intrinsic motivation (factor 3 $p = 0.000 < 0.05$; factor 2 $p = 0.004 < 0.05$; factor 5 $p = 0.015 < 0.05$) being higher in students who have had work experience.

Regarding the variable volunteering experience, if we analyze both stages separately, we do not find significant differences in motivation. However, if we analyze both stages together, there are significant differences in intrinsic motivation for the pleasure one feels when completing specific activities internal to the individual (factor 2 $p = 0.025 < 0.05$); in extrinsic motivation for achieving goals (factor 3 $p = 0.000 < 0.05$) and intrinsic motivation for performing tasks external to the individual and with others who make them feel good (factor 5 $p = 0.001 < 0.05$) being better valued by participants who have volunteered.

Finally, we have used the Kruskal–Wallis test inferential statistic to analyze the significant differences in the dependent variable “age” and “average grade”. Regarding the variable “age”, in the educational stage of BVT there are differences in factor 2 ($p = 0.029 < 0.05$), referring to intrinsic motivation, between the age ranges 16–25 years, and 36–45 years, the motivation being higher in the last rank. In the university stage, there are significant differences in factor 3 (extrinsic motivation) between the age ranges 16–25 and 26–35 ($p = 0.032 < 0.05$) being higher in 26–35 years. Further, there are significant differences in factor 2 (intrinsic motivation) between the age ranges 16–25 and 36–45 ($p = 0.002 < 0.05$) being higher in the ages between 36 and 45 years. In addition, we also found differences in factor 5 (intrinsic motivation) between the age ranges 16–25 and 26–35 years ($p = 0.012 < 0.05$) being higher in the ages between 25 and 35 years; and between the age ranges 16–25 and 36–45 years ($p = 0.001 < 0.05$) being higher in the range of 36–45 years. Moreover, we have verified that there is a correlation between age and intrinsic motivation with values between $\rho = 0.143$ $p = 0.001$ and $\rho = 0.341$ $p = 0.001$.

Regarding the variable “average grade”, in the BVT stage we did not find significant differences. In the university stage, we found significant differences in factor 3, referring to extrinsic motivation, between students with a qualification of “notable” and “doctoral studies with a favorable qualification” ($p = 0.029 < 0.05$), the motivation being higher in doctoral students. Furthermore, we found differences in factor 2, referring to intrinsic motivation, between students with a grade of “good” and “remarkable” ($p = 0.014 < 0.05$) being higher in students with “remarkable”; between students with a qualification “Good” and “favorable doctoral studies” ($p = 0.001 < 0.05$) being higher in doctoral students; and between students with a qualification “notable” and “favorable doctoral studies” ($p = 0.000 < 0.05$) higher in “favorable doctoral studies”. In addition, we found significant differences in factor 5, referring to intrinsic motivation, between students with a grade of “good” and “remarkable” ($p = 0.000 < 0.05$) being higher in students with “remarkable”, between students with a qualification “good” and “favorable doctoral studies” ($p = 0.000 < 0.05$) being higher in students with favorable doctoral studies; between students with a qualification “notable” and “remarkable” ($p = 0.003 < 0.05$) being higher in students with “remarkable”, and between students with a qualification “notable” and “favorable doctoral studies” ($p = 0.000 < 0.05$) being higher in doctoral studies favorable. Finally, we have been able to verify that there is a correlation between intrinsic and extrinsic motivation and the average score with values between $\rho = -0.113$ $p = 0.010$ and $\rho = 0.365$ $p = 0.000$.

4. Discussion

Motivation plays an essential role in the prediction of students' academic performance and their future satisfaction and wellbeing in their later profession. Further, it will influence the performance of tasks, student effectiveness in different ambits and, therefore, functioning of the organizations at which these students will end up working [17,18,27,28]

For this reason, research—such as that conducted in the present study—is essential which explores and strives to improve existing instruments in order to more accurately measure student motivation. Ultimately, the aim of this is to work on this aspect in classrooms and ensure better teaching-learning processes.

The AMS has been subjected to various validations. Of the validation studies conducted, that conducted by Núñez et al. (2005) stands out [23]. As previously mentioned, this study translated the scale into Spanish and validated it within a sample of university students, obtaining a structure divided into seven factors. With regards to the results obtained by this previous study, consistency values for the considered subscales were found to lie between $\alpha = 0.67$ and $\alpha = 0.84$. Following CFA, a significant chi-squared value was obtained ($X^2 = 883.96$; $df = 320$; $p < 0.001$), alongside a GFI of 0.91, NFI of 0.90, IFI of 0.93, CFI of 0.93, and RMSEA value of 0.05. Several years later, these same authors again validated the scale, this time within secondary school students [24]. In this case, the most appropriate model for the scale was composed of seven factors and had an internal consistency that ranged between $\alpha = 0.73$ and $\alpha = 0.86$. Other authors determined consistency in EME ($\alpha = 0.87$) after applying it to a sample of adults who study a second language [29]. Nonetheless, other studies used the same five-factor scale structure developed by Deci and Ryan in 1985 with university students, obtaining a value of $\alpha = 0.767$ [15,30].

In the present study, we adjusted this scale model to BVT and university students, who shared the common element of being very close to joining the working world and of experiencing transformations to their learning processes due to the situation provoked by COVID-19. Following EFA, we obtained an instrument structure which was divided into five subscales. These subscales were denominated as follows. Factor 1: Intrinsic motivation for the pleasure of achieving goals; factor 2: Intrinsic motivation for the pleasure one feels when completing specific activities internal to the individual; factor 3: Extrinsic motivation for achieving goals; factor 4: Amotivation; and, factor 5: Intrinsic motivation for performing tasks external to the individual and with others who make them feel good. These factors obtained Cronbach α values of between $\alpha = 0.733$ and $\alpha = 0.901$. As can be seen, these values are higher than those obtained in the aforementioned research studies.

Following this, we performed CFA, obtaining a significant chi-squared value ($X^2 = 733.493$; $df = 204$; $p = 0.000$), an IFI of 0.923, NFI of 0.897, CFI of 0.923, and RMSEA value of 0.071. These values are highly similar to those obtained by Núñez and other authors in 2010 [24]. This highlights that an adjusted scale model can be developed to analyze the motivation held by students who are about to insert themselves into the socio-occupational setting and are wrapped up in the COVID-19 pandemic.

Focusing on the analysis of the motivation of university and BVT students, we can say that in general the students are moderately motivated. However, it is important to highlight that there are differences in the different types of motivation between university students and BVT students. University students have higher intrinsic motivation and BVT students have higher extrinsic motivation.

Focusing on BVT students, several studies such as the one developed by Cacheiro et al. (2015) [31], affirm that these students present “socio-educational difficulties and they highlight the low motivation for school tasks and the exclusion from work” (p. 1). This same study shows that lack of motivation for the teaching-learning processes is due, among other factors, to the school failure that these students have suffered in previous educational stages, the little involvement of families in the teaching-learning processes, and an inadequate educational orientation.

Our study confirms what has already been stated by other authors, and also provides a view on the characteristics of the motivation of these students, analyzing it based on the

SDT theory, differentiating between extrinsic, intrinsic, and demotivation motivation, in order to be able to give an adequate educational response in this regard. Specifically, based on the results of the study, we can say that FPB students have lower intrinsic motivation than extrinsic motivation. In this sense, most of these students continue their training to join the world of work, that is, for external rewards such as getting a job and earning money, and not because they enjoy learning new things.

In the case of university students, the intrinsic motivation is greater in the sense that they do not choose the shortest path to finish their studies and join the working life, but instead make the decision to continue training. Thus, one of the characteristics that university students must have to adapt and be successful in the university environment is motivation and satisfaction with studies [32].

The fact that intrinsic motivation is higher in university students does not mean that there are not different motivational profiles in this area. Some studies such as those carried out by Moreno and Silveira (2015) and Vansteenkiste et al. (2009) [33,34] identify different motivational profiles.

This study has highlighted the need for education professionals to pay attention to the different motivational profiles, and especially on intrinsic and autonomous motivation in both educational stages, especially in the BVT stage. This is relevant, if we take into account that intrinsic motivation is a factor that contributes students achieve self-regulated and self-effective learning [16,17,35,36] that it implies interest and enjoyment of the activity that takes place, in this case training and work, throughout life [37].

From a business viewpoint, some studies have shown that a deficit exists in the motivational development of degree students [38] which leads to a reduction in the employment possibilities of students who they finish their training, and therefore there is a greater risk that these students will find themselves in social exclusion.

In addition to this, the study has corroborated that, regardless of the educational level in which we find ourselves, we must take into account a series of variables when working on intrinsic motivation with students who are close to their incorporation into the world of work. First, we must address the variable “sex” in the sense that there are motivational differences based on this variable. In BVT, we have obtained that women have a higher intrinsic motivation than men. Many studies affirm that there is a greater intrinsic motivation in women than in men [28,39,40]. However, in this study we have also seen how, in the university setting, men present greater intrinsic motivation. This reveals the existence of a correlation between these variables. Given this, education professionals must pay special attention to this variable in order to promote gender equality in training and work opportunities in the 21st century, contributing to achieving the sustainable development objectives (SDG) proposed by the Organization of the United Nations.

Second, the study has corroborated that students who have work and volunteering experience have higher intrinsic motivation. Some studies, such as those developed by González-Peiteado, et al. (2016) and Kroll and Vogel (2018) [28,41], have obtained similar results. BVT students usually have no prior work experience, and volunteering experience is scarce in both stages of education. Given this, it is necessary to promote these experiences in the curricula of both educational stages. In this way, we could achieve greater intrinsic motivation.

Third, age is an essential factor for education professionals to take into account. Greater attention must be paid to intrinsic motivation at an early age, in the case of this study in BVT. If during this stage we promote greater intrinsic motivation in the students, we can achieve continuity in their training or a full satisfactory inclusion in the world of work. The increase in motivation as people age has also been evidenced by other studies such as those developed by Symonds, et al. (2019), Okuniewski (2014) and Kusurkar, et al. (2010) [37,42,43].

Fourth, also we found that there is a correlation between motivation and average grade. This last correlation has also been shown by numerous studies [44–47]. We especially highlight the one developed by O’Reilly in 2014 who affirms that there is a correlation be-

tween greater autonomy of students, intrinsic motivation, and academic performance [40]. As education professionals, we must promote intrinsic motivation in students since “the more support for autonomy students perceived, the higher their grades” [48]. This becomes especially relevant for BVT students, who are characterized by low grades.

Finally, with regards to study limitations, we should indicate that it is necessary to review the functioning of the scale within a larger sample of BVT and university students. Although CFA produced positive outcomes, we believe that properties could continue to be improved in order to obtain excellent indices. Beyond this, we consider motivation to be an essential element when turning the skill to learn into lifelong learning.

5. Conclusions

As main findings of the present study, we highlight the fit of the AMS motivational scale to the sample of BVT and university students, with good internal consistency indices and optimal CFA values being achieved.

We also revealed intrinsic motivation to be higher amongst university students and lower amongst those undertaking BVT. The complete opposite occurred with regards to extrinsic motivation. In the case of amotivation, this form of motivation obtained low values in both educational stages, although we should not dismiss it given that it presents a serious stumbling block to ensuring successful teaching–learning processes. We were able to establish significant differences between the two educational stages in motivational aspects. Intrinsic motivation refers to the pleasure students feel when they better themselves, learn new things and attend college or university. With regards to extrinsic motivation, significant differences exist in the importance attributed by students to getting a good well-paid job. Regarding amotivation, differences were only found to exist in relation to the motives held by students for attending classes and their indecision regarding whether or not to continue the studies on which they were enrolled at the time of data collection.

Finally, we have found that there are significant differences in intrinsic motivation for the pleasure of achieving goals and in extrinsic motivation to achieve goals between men and women. Moreover, that intrinsic motivation is higher in people with previous work experience; and that both, intrinsic and extrinsic motivation, are higher in subjects with previous volunteering experience. Regarding age, we found that motivation increases as the subjects age. Finally, those with favorable grades at advanced academic levels such as the doctorate or with high average grades have higher intrinsic motivation.

Author Contributions: Conceptualization, J.J.R.-D.d.l.G. and M.D.P.-R.; data curation, M.D.P.-R. and J.J.R.-D.d.l.G.; formal analysis, E.M.O.-M., J.E.-L., and N.P.-J.; investigation, J.E.-L. and N.P.-J.; methodology, J.E.-L. and E.M.O.-M.; writing—review and editing, N.P.-J. All authors have read and agreed to the published version of the manuscript.

Funding: R+D+I Project EDU2017-88641-R: Hybrid learning models in contexts at risk of social exclusion. Ministry of Education, Culture and Sport of the Spanish Government; R+D+I Research Project B-SEJ-192-UGR18, funded using the FEDER fund of the Board of Andalusia (Spain); and Ministry of Education, Culture and Sport of the Spanish Government—University Teacher Training. FPU. Reference: FPU17/03339.

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Research Ethics Committee of University of Granada n°1678/CEIH/2020 and date of approval: 21 September 2020.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Data is not available.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Riveiro, J.M.S.; Suárez, A.P.F.; Sánchez, V.R.; Menéndez, Á.Z. Incidencia de las estrategias motivacionales de valor sobre el aprendizaje en estudiantes de secundaria. *Rev. Complut. Educ.* **2016**, *27*, 421–435. [CrossRef]
- Schunk, D.H.; Zimmerman, B.J. *Motivation and Self-Regulated Learning: Theory, Research, and Applications*; Lawrence Erlbaum Associates: Mahwah, NJ, USA, 2007.
- Zimmerman, B.J. Investigating Self-Regulation and Motivation: Historical Background, Methodological Developments, and Future Prospects. *Am. Educ. Res. J.* **2008**, *45*, 166–183. [CrossRef]
- Chow, S.K.Y.; Wong, J.L.K. Supporting Academic Self-Efficacy, Academic Motivation, and Information Literacy for Students in Tertiary Institutions. *Educ. Sci.* **2020**, *10*, 361. [CrossRef]
- García-Jiménez, E. La evaluación del aprendizaje: De la retroalimentación a la autorregulación. El papel de las tecnologías. *RELIEVE Rev. Electron. Investig. Eval. Educ.* **2015**, *21*. [CrossRef]
- Tsyganova, L.V.; Zubkova, Y.V.; Bystrova, N.V.; Kutepova, L.I.; Kutepov, M.M. Game technologies as a means of increasing the educational motivation of university students. *Propos. Represent.* **2020**, *9*, 808. [CrossRef]
- Takahashi, C.; Im, S. Comparing self-determination theory and the L2 motivational self system and their relationships to L2 proficiency. *Stud. Second. Lang. Learn. Teach.* **2020**, *10*, 673–696. [CrossRef]
- Mombaers, T.; Donche, V. Hospital School Students' Academic Motivation and Support Needs: A Self-Determination Perspective. *Front. Educ.* **2020**, *5*. [CrossRef]
- Deci, E.L.; Ryan, R.M. The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychol. Inq.* **2000**, *11*, 227–268. [CrossRef]
- Virkkula, E. Evaluating motivational characteristics in vocational music education within the perspective of self-determination theory. *Empir. Res. Vocat. Educ. Train.* **2020**, *12*, 1–15. [CrossRef]
- Ntoumanis, N.; Ng, J.Y.; Prestwich, A.; Quested, E.; Hancox, J.E.; Thøgersen-Ntoumani, C.; Deci, E.L.; Ryan, R.M.; Lonsdale, C.; Williams, G.C. A meta-analysis of self-determination theory-informed intervention studies in the health domain: Effects on motivation, health behavior, physical, and psychological health. *Health Psychol. Rev.* **2020**, 1–31. [CrossRef]
- Ryan, R.M.; Deci, E.L. *Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness*; Guilford Publications: New York, NY, USA, 2017.
- Karlen, Y.; Suter, F.; Hirt, C.; Merki, K.M. The role of implicit theories in students' grit, achievement goals, intrinsic and extrinsic motivation, and achievement in the context of a long-term challenging task. *Learn. Individ. Differ.* **2019**, *74*, 101757. [CrossRef]
- Dörnyei, Z.; Ushioda, E. *Teaching and Researching: Motivation*; Routledge: London, UK, 2013.
- Deci, E.L.; Ryan, R.M. *Intrinsic Motivation and Self-Determination in Human Behavior*; Plenum Press: New York, NY, USA, 1985.
- Castro-Sánchez, M.; Zurita-Ortega, F.; García-Marmol, E.; Chacón-Cuberos, R. Asociación entre clima motivacional, ajuste escolar y funcionalidad familiar en adolescentes. *RELIEVE Rev. Electron. Investig. Eval. Educ.* **2019**, *25*. [CrossRef]
- Pascoe, L.; Spencer-Smith, M.; Giallo, R.; Seal, M.; Georgiou-Karistianis, N.; Nosarti, C.; Josev, E.; Roberts, G.; Doyle, L.; Thompson, D.; et al. Intrinsic motivation and academic performance in school-age children born extremely preterm: The contribution of working memory. *Learn. Individ. Differ.* **2018**, *64*, 22–32. [CrossRef]
- Monnot, M.J. The effect of incentives on intrinsic motivation and employee attitudes: A multilevel study across nations and cultural clusters. *Thunderbird Int. Bus. Rev.* **2017**, *60*, 675–689. [CrossRef]
- Anguita, J.M.; Méndez, M.; Méndez, D. Motivación de Alumnos de Educación Secundaria y Bachillerato Hacia el Uso de Recursos Digitales Durante la Crisis del Covid-19. *Rev. Estilos Aprendiz.* **2020**, *13*, 68–81.
- Smith, J.; Guimond, F.-A.; Bergeron, J.; St-Amand, J.; Fitzpatrick, C.; Gagnon, M. Changes in Students' Achievement Motivation in the Context of the COVID-19 Pandemic: A Function of Extraversion/Introversion? *Educ. Sci.* **2021**, *11*, 30. [CrossRef]
- Vallerand, R.J.; Blais, M.R.; Brière, N.M.; Pelletier, L.G. Construction et validation de l'échelle de motivation en éducation (EME). *Can. J. Behav. Sci. Rev. Can. Sci. Comport.* **1989**, *21*, 323–349. [CrossRef]
- Vallerand, R.J.; Pelletier, L.G.; Blais, M.R.; Brière, N.M.; Senecal, C.; Vallières, E.F. The Academic Motivation Scale: A Measure of Intrinsic, Extrinsic, and Amotivation in Education. *Educ. Psychol. Meas.* **1992**, *52*, 1003–1017. [CrossRef]
- Núñez, J.L.; Martín-Albo Lucas, J.; Navarro, J.G. Validación de la Versión española de la Échelle de Motivation en Éducation. *Psicothema* **2015**, *17*, 344–349. Available online: <http://www.psicothema.com/psicothema.asp?id=3110> (accessed on 1 January 2021).
- Núñez, J.L.; Martín-Albo, J.; Navarro, J.G.; Suárez, Z. Adaptación y validación de la versión española de la Escala de Motivación Educativa en estudiantes de educación secundaria postobligatoria. *Stud. Psychol.* **2010**, *31*, 89–100. [CrossRef]
- Frías-Navarro, D. Apuntes de Consistencia Interna de las Puntuaciones de un Instrumento de Medida. Universidad de Valencia, España. 2020. Available online: <https://www.uv.es/friasnav/AlfaCronbach.pdf> (accessed on 1 January 2021).
- Nielsen, T. The intrinsic and extrinsic motivation subscales of the Motivated Strategies for Learning Questionnaire: A Rasch-based construct validity study. *Cogent Educ.* **2018**, *5*. [CrossRef]
- Paz, O.H.B. Motivación laboral de los egresados del Programa de Administración de Empresas de la Universidad de Nariño. *Tendencias* **2017**, *18*, 41. [CrossRef]
- Taylor, G.; Jungert, T.; Mageau, G.A.; Schattke, K.; Dedic, H.; Rosenfield, S.; Koestner, R. A self-determination theory approach to predicting school achievement over time: The unique role of intrinsic motivation. *Contemp. Educ. Psychol.* **2014**, *39*, 342–358. [CrossRef]

29. González-Peiteado, M.; Pino-Juste, M.; Rodríguez-López, B. Motivation as a Key Issue in the Learning of a Second Language. *Int. J. Adult Community Prof. Learn.* **2016**, *24*, 1–13. [CrossRef]
30. Javaeed, A.; Asghar, A.; Allawat, Z.; Haider, Q.; Mustafa, K.J.; Ghauri, S.K. Assessment of Academic Motivation Level of Undergraduate Medical Students of Azad Kashmir, Pakistan. *Cureus* **2019**, *11*. [CrossRef] [PubMed]
31. Cacheiro, M.L.; García, F.; Moreno, A.J. Las TIC en Los Programas de Formación Profesional Básica en Ceuta. *Apertura* **2015**, *7*, 1–18. Available online: <https://dialnet.unirioja.es/servlet/articulo?codigo=5547131> (accessed on 1 January 2021).
32. Álvarez-Pérez, P.R.; López-Aguilar, D. Perfil de ingreso y problemas de adaptación del alumnado uni-versitario según la perspectiva del profesorado. *Revista Esp. Orientac. Psicopedag.* **2019**, *30*, 46–63. Available online: <https://dialnet.unirioja.es/servlet/articulo?codigo=7332518> (accessed on 1 January 2021).
33. Moreno-Murcia, J.A.; Torregrosa, Y.S. Perfiles motivacionales de estudiantes universitarios. Procesos de estudio y satisfacción con la vida. *Rev. Electron. Interuniv. Form. Profr.* **2015**, *18*, 170–182. Available online: <https://www.redalyc.org/articulo.oa?id=217042307014> (accessed on 1 January 2021). [CrossRef]
34. Vansteenkiste, M.; Sierens, E.; Soenens, B.; Luyckx, K.; Lens, W. Motivational profiles from a self-determination perspective: The quality of motivation matters. *J. Educ. Psychol.* **2009**, *101*, 671–688. [CrossRef]
35. Kılıçoğlu, G. Study on the Relationship between Social Studies Course Self-efficacy and Motivation Levels of Secondary School Students. *Univers. J. Educ. Res.* **2018**, *6*, 1743–1748. [CrossRef]
36. Wijsman, L.A.; Saab, N.; Warrens, M.J.; Van Driel, J.H.; Westenberg, P.M. Relations of autonomous and controlled motivation with performance in secondary school students' favoured and disfavoured subjects. *Educ. Res. Eval.* **2018**, *24*, 51–67. [CrossRef]
37. Ryan, R.M.; Deci, E.L. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *Am. Psychol.* **2000**, *55*, 68–78. [CrossRef] [PubMed]
38. Observatorio de Innovación En el Empleo (OIE). Informe OIE Sobrejóvenes y Mercado Laboral: El Camino del Aula a la Empresa. 2014. Available online: <http://www.injuve.es/gl/noticia/informe-oie-sobre-jovenes-y-mercado-laboral> (accessed on 1 January 2021).
39. Akpochofo, G.O. Motivation for Preservice Students to Choose a Teaching Career by Gender, Age, and Subject Area in Nigeria. *Int. J. Educ. Pract.* **2020**, *8*, 289–297. [CrossRef]
40. Kusurkar, R.; Kruitwagen, C.; Cate, O.T.; Croiset, G. Effects of age, gender and educational background on strength of motivation for medical school. *Adv. Health Sci. Educ.* **2009**, *15*, 303–313. [CrossRef] [PubMed]
41. Kroll, A.; Vogel, D. Changes in Prosocial Motivation over Time: A Cross-Sector Analysis of Effects on Volunteering and Work Behavior. *Int. J. Public Adm.* **2017**, *41*, 1119–1131. [CrossRef]
42. Symonds, J.; Schoon, I.; Eccles, J.; Salmela-Aro, K. The Development of Motivation and Amotivation to Study and Work across Age-Graded Transitions in Adolescence and Young Adulthood. *J. Youth Adolesc.* **2019**, *48*, 1131–1145. [CrossRef]
43. Okuniewski, J.E. Age and Gender Effects on Motivation and Attitudes in German Learning: The Polish Context. *Psychol. Lang. Commun.* **2014**, *18*, 251–262. [CrossRef]
44. Nikkerdar, N.; Sharifi, R.; Tanha, R.H. The factors affecting academic motivation among students of Kermanshah University of Medical Science in 2014. *Adv. Environ. Biol.* **2014**, *8*, 123–130.
45. Nurieva, N.S.; Nikolaeva, N.N.; Bauman Moscow State Technical University. Predominance of intrinsic motivation as a predictor of effective foreign languages acquisition in higher education. *Sci. Educ. Today* **2020**, *10*, 27–43. [CrossRef]
46. Niehaus, K.; Rudasill, K.M.; Adelson, J.L. Self-Efficacy, Intrinsic Motivation, and Academic Outcomes Among Latino Middle School Students Participating in an After-School Program. *Hisp. J. Behav. Sci.* **2011**, *34*, 118–136. [CrossRef]
47. O'Reilly, E.N. Correlations among Perceived Autonomy Support, Intrinsic Motivation, and Learning Outcomes in an Intensive Foreign Language Program. *Theory Pr. Lang. Stud.* **2014**, *4*, 1313–1318. [CrossRef]
48. Griffin, B.W. Perceived autonomy support, intrinsic motivation, and student ratings of instruction. *Stud. Educ. Eval.* **2016**, *51*, 116–125. [CrossRef]