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RELATIONSHIP OF MOTIVATION FOR STUDYING WITH PROFESSIONAL QUALIFICATIONS IN A ROMANIAN PRE-SCHOOL TEACHERS SAMPLE

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Abstract: *The present study sought to investigate the aspects of academic motivation using the MUSIC scale. The hypothesis was that perceptions of own motivation for study are related to the professional qualifications already achieved. The sample of this study consisted of a voluntary group of 98 students, all of them already working as preschool teachers, mainly enrolled in the Master's Programs: Educational Management - first and second year and Psychopedagogy of Early Education - first and second year. The study had a cross-sectional design. Two types of statistical analyses were performed: Spearman correlation and GLM multivariate analysis. Interpretation of results from this study suggested that the hypothesis of the study was only partially confirmed, in the correlational analysis only three motivation dimensions presented statistically significant relationships and in the second analysis only Interest dimension was statistically significantly influenced by the professional qualification already obtained (the Grad_nr. variable). It is considered that the difference between significant results obtained using correlation analysis and GLM multivariate analysis is due to the way these analyses work, the first one considers the whole group and the second one tests the prediction in each subgroup of the sample. But, even considering this limitation, results obtained in this study indicate that professional development can be a useful indicator for further motivation to improve themselves as professionals and for making efforts to obtain a higher professional qualification.*

Keywords: *motivation; professional qualification; pre-school teacher.*

Background

Motivation for study implies the drive toward acquiring knowledge, seeking training, and achieving qualifications. The typical factors can

be discussed using the intrinsic-extrinsic classification of the motivation. Examples of intrinsic motivation for preschool teachers could be a need for personal growth, belief that education and teaching have a positive impact on own person. Examples of extrinsic motivation most often refer to external rewards, salary or other benefits but also to avoiding possible negative consequences for not complying with institutional or professional requirements. One theory that uses this classification is the Self-Determination Theory (Ryan & Deci, 2000) that, can be also used to study interest in learning and the path of professional development.

Motivation for preschool teacher career is a complex issue (Shen & Luen, 2022). From start it should be clarified that about teachers' motivation can be discussed from at least two points of view. First would be the motivation to enter the pre-school teacher career (Tokić, 2018) and second would be the motivation to enhance own abilities during such a career. This study is mainly focused on the second variant because despite the fact that the sample is referring to students, all of them are already working in the domain of education. Professional qualifications may include any credentials in early childhood education such as specialized training programs ended with a certification or academic degrees (bachelor or master). These are seen as means that improve pedagogical abilities that are required or in relation with existing or expected national standards. Formal education is not always related to a better teaching performance and one study found that only teaching experience is related to improved teacher performance (Agilda et al., 2025).

Different variables can have an influence on professional development of preschool teachers. Education level can be an important variable in relation with motivation oriented toward professional improvement, although there could be a lag between motivation level and professional development activities (Nedimović & Đorđev, 2025). Gender is another variable that can prove to be a relevant variable that has an effect on preschool teachers (Erden et al., 2011). Regarding the relationship between motivation and professional experience in one study concerning preschool teachers, motivation is found to be higher for younger teachers. In this study it was determined that teachers below 10 years of seniority presented a significant difference in motivation comparing older teacher colleagues (11+ years of professional seniority) (Saira et al., 2023). Type of activities of professional development or perception of them have been found to be other relevant variables. Teachers can prefer informal activities against formal activities and participation can be higher when teachers perceive that the activity is useful (Múñez et al., 2017). In a more

actual study is evidenced the relationship between prosocial motivation with emotional support competence underlining the complexity of the subject that is recommended to be explored in future studies using a longitudinal design and taking in account the impact of cultural context. Also, this study highlights the fact that is possible, career growth not have a linear development (Lin et al., 2025).

For early education teachers, training program programs have a positive impact on professional development improving multiple aspects such as: motivation, skills or professional knowledge and skills (Hyseni Duraku et al., 2022).

Despite numerous studies that are following different variables, quantitative studies that investigate in a preschool teachers' sample the relationship between motivation and professional development offer a fragmented image in which is difficult to discern the impact of each variable so that any new study could be useful to some extent for adding new results to this important social and personal topic. Also, a recent systematic review (Lazarides et al., 2025) that initially was following 1607 records, eventually found only 16 eligible studies and concluded that there is a scarcity of studies that investigate the mediational processes between teacher motivation and their behavior.

Hypothesis

Perceptions of own motivation for study are related to the professional qualifications already achieved in a preschool teacher's sample.

Research Methods

Sample

At the beginning, the sample consisted of 215 people, with an average age of 34.27 years (SD = 9,670); minimum age was 21 years and maximum 55 years, the group included 204 females and 11 males, students in the Master's Programs: Educational Management - first and second year and Psychopedagogy of Early Education - first and second year and three students in the field of science of education. These individuals' classes were invited to complete the questionnaire of this research. The questionnaire was electronically distributed by Google Forms.

From this sample, in this study were selected only respondents that were teaching at preschool level, 98 females, with an average age of 31.52 years (SD = 8.320); minimum age was 21 years and maximum 52 years. the group included students in the Master's Programs: Educational Management - first and second year and Psychopedagogy of Early Education - first and second year and one student in the field of science of education.

Table 1. Sex * Specializarea Crosstabulation
Count

	Specializarea					Total
	ME anul 1	ME anul 2	PETSM anul 1	PETSM anul 2	PIPP anul 1	
Sex Feminin	28	16	21	32	1	98
Total	28	16	21	32	1	98

Instruments

The MUSIC inventory proposes a motivation model with five main components: empowerment, utility, success, interest and care. The MUSIC motivation model (Jones, 2009, 2018) can be used in any field at any class level. Later, the inventory was modified and were developed shorter versions (of 20 or 19 items) but in this study the original 26 items inventory was used. The inventory uses a 1to 6 rating scale (from „Strongly disagree" to „Strongly agree"), each number being associated a verbal description. Each principle is measured by a number of items:

Empowerment score = (item 2 + item 8 + item 12 + item 17 + item 26) / 5

Usefulness score = (item 3 + item 5 + item 19 + item 21 + item 23) / 5

Success score = (item 7 + item 10 + item 14 + item 18) / 4

Interest score = (item 1 + item 6 + item 9 + item 11 + item 13 + item 15) / 6

Caring score = (item 4 + item 16 + item 20 + item 22 + item 24 + item 25) / 6

The inventory was used in several large studies (Jones et al., 2021, 2022; Jones & Wilkins, 2023) and also in recent ones (Resendiz-Calderón et al., 2024, 2024; Suzuki et al., 2024)

For this research the MUSIC inventory was translated by two translators in Romanian; these translations were merged through a synthesis by a committee (two translators, previously mentioned, and an expert in the field) and finally, the Romanian version was translated again in English by another translator and a second expert in the field.

Research design

This study follows a cross-sectional design.

Results

Considering the hypothesis of this study were used two types of analyses, Spearman correlation and GLM multivariate analysis.

In both analyses next variables were used; for each dimension of the MUSIC scale scores were calculated and the Grad_nr variable was converted (0-none, 1-“definitivat”, 2-“grad 2” and 3-“grad1”). Variables have not presented a normal distribution and this determined the statistical analyses used.

Table 2. Correlations Motivation scales with professional qualification variable (Grad_nr)

			Empowerment score	Usefulness score	Success score	Interest_score	Caring_score
Spearman's rho	Grad_nr	Correlation Coefficient	,107	,130	,204*	,273**	,230*
		Sig. (2-tailed)	,296	,200	,044	,007	,022
		N	98	98	98	98	98

*. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).

A multivariate general linear model was conducted to examine the effect of Grad_nr variable on motivation dimensions from MUSIC scale. The overall multivariate effect of Grad_nr variable was significant, Pillai's Trace = .349, F = 2424, p = .003.

Table 3. Descriptive Statistics for the 5 scales of the MUSIC inventory

	Grad_nr	Mean	Std. Deviation	N
Empowerment_score	,00	4,9926	1,26428	27
	1,00	5,2286	,87869	35
	2,00	5,5636	,41779	11
	3,00	5,4400	,53229	25
	Total	5,2551	,90896	98
Usefulness_score	,00	5,1481	1,19819	27
	1,00	5,5200	,88011	35
	2,00	5,8909	,16404	11
	3,00	5,5520	,50093	25
	Total	5,4673	,87905	98
Success_score	,00	4,9815	1,16629	27
	1,00	5,3571	,83421	35
	2,00	5,4773	,52979	11
	3,00	5,5900	,46704	25
	Total	5,3265	,86335	98
Interest_score	,00	5,0185	1,11740	27
	1,00	5,4619	,93243	35
	2,00	5,9091	,17262	11
	3,00	5,6267	,40046	25
	Total	5,4320	,87502	98
Caring_score	,00	5,2840	1,22458	27
	1,00	5,6143	,89914	35
	2,00	5,9697	,10050	11
	3,00	5,8133	,34129	25
	Total	5,6139	,87755	98

Table 4. Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Empowerment_score	3,787a	3	1,262	1,554	,206
	Usefulness_score	5,001b	3	1,667	2,240	,089
	Success_score	5,233c	3	1,744	2,445	,069
	Interest_score	8,099d	3	2,700	3,835	,012
	Caring_score	5,326e	3	1,775	2,406	,072
Intercept	Empowerment_score	2292,376	1	2292,376	2822,110	,000
	Usefulness_score	2487,813	1	2487,813	3342,931	,000
	Success_score	2331,662	1	2331,662	3267,956	,000

	Interest_score	2466,508	1	2466,508	3503,873	,000
	Caring_score	2617,781	1	2617,781	3547,048	,000
	Empowerment_score	3,787	3	1,262	1,554	,206
	Usefulness_score	5,001	3	1,667	2,240	,089
Grad_nr	Success_score	5,233	3	1,744	2,445	,069
	Interest_score	8,099	3	2,700	3,835	,012
	Caring_score	5,326	3	1,775	2,406	,072
	Empowerment_score	76,355	94	,812		
	Usefulness_score	69,955	94	,744		
Error	Success_score	67,068	94	,713		
	Interest_score	66,170	94	,704		
	Caring_score	69,374	94	,738		
	Empowerment_score	2786,520	98			
	Usefulness_score	3004,360	98			
Total	Success_score	2852,750	98			
	Interest_score	2965,889	98			
	Caring_score	3163,306	98			
	Empowerment_score	80,142	97			
	Usefulness_score	74,956	97			
Corrected Total	Success_score	72,301	97			
	Interest_score	74,269	97			
	Caring_score	74,700	97			

a. R Squared = ,047 (Adjusted R Squared = ,017)
b. R Squared = ,067 (Adjusted R Squared = ,037)
c. R Squared = ,072 (Adjusted R Squared = ,043)
d. R Squared = ,109 (Adjusted R Squared = ,081)
e. R Squared = ,071 (Adjusted R Squared = ,042)

Because only Interest dimension presented a significant p value in Table 4, in Table 5 is presented a post-hoc analysis (Tukey) only for this variable and, are included only the significant differences (between first subgroup and all other 3 subgroups).

Table 5. Multiple Comparisons
Tukey HSD

Dependent Variable	(I) Grad_nr	(J) Grad_nr	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
		1,00	-,4434	,21491	,173	-1,0055	,1187
Interest_score	,00	2,00	-,8906*	,30011	,020	-1,6755	-,1056
		3,00	-,6081	,23287	,051	-1,2172	,0009

Based on observed means.
The error term is Mean Square (Error) = ,738.
*. The mean difference is significant at the ,05 level.

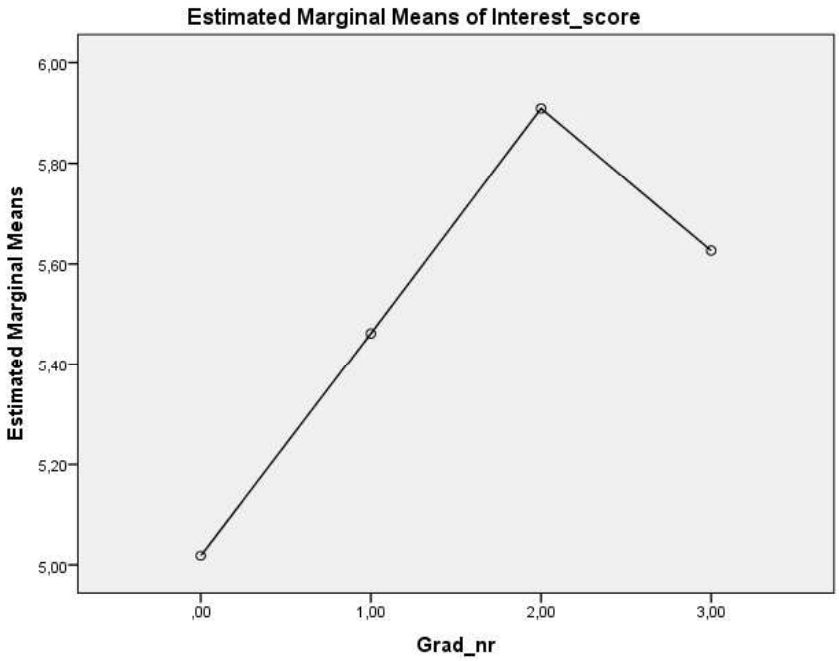

Figure 1. Relationship of Interest dimension (MUSIC scale) with professional qualifications (Grad_nr)

Except for the Success dimension for which there was a linear relationship, for all the remaining dimensions of MUSIC scale, the last sub-group (3-Grad 1) presented a similar pattern as in Figure 1.

Discussion

Hypothesis of this study is only partially confirmed. For overall group the association between hypothesis variables was confirmed for three dimensions: success, interest and caring. For all these three dimensions the relationship was a significant positive correlation. These results suggest that between Grad_nr variable and these three variables the relationship is mostly a liniar one.

Considering the second analysis, the GLM multivariate, one difference is that it is a regression analysis and is trying not only to find a significant relationship between variables but even more, to establish the impact of independent variable on the dependent variables. In the case of this study the interest was to find out if professional

qualifications, already obtained, influence the motivation to follow further academic programs (bachelor or master degrees). In literature is more common to find motivation as the independent variable that influences teacher career development (Saira et al., 2023) but in this study the opposite was considered because although this sample is composed of students, these students already are working as teachers and they only complete their academic preparation in the domain of education. So that, through this second type of statistical analysis it was addressed the question if teachers' professional qualifications influence their motivation to continue academic preparation in education area. Although the correlation analysis indicated that higher professional qualifications are associated with a higher motivation, the second analysis indicated that for most dimensions of the motivation scale the sub-group with highest professional qualifications (grad 1) presented a lower motivation for academic study comparing the previous (and inferior) professional qualification (grad 2) but higher than lower professional qualifications („definitivat" or without any qualification; of course, except diplomas obtained in education domain, and that allows them to be teachers). The only exceptions from this data trend can be observed for the „success" dimension where, the higher the professional qualifications the greater the motivation. This dimension of MUSIC scale comprises of 4 questions (number: 7, 10, 14, 18) that were asking if students considered that can succesfully manage their academic activities/duties/grades (Annex).
The difference between significant results obtained used by correlation analysis and GLM multivariate analysis is due to the way this analyses work, the first one considers the whole group and the second one tests the prediction in each subgroup of the sample.

Conclusion

Motivation of teachers is an important issue and is oftenly studied in relation with motivation to enter teaching carreer and to develop it by getting knowledge, skills through professioanl training and qualifications but despite this importance there still are needed more studies to fully undestand all the possible relationships between motivation and other relevant variables for teachers. Also, it is possible results be different in analysing different types of teachers, this study being focused only on preschool teachers. But for this sample results obtained in this study indicate that professional development can be an useful indicator for further motivation to improve themselfes and for making efforts to get a higher professional qualification.

MUSIC Inventory

Annex

- To be administered while the student is enrolled in college
- Use the instructions below. Title the survey following the directions in a prior page of this User Guide. Also, use the directions on a prior page for how to format the 1 to 6 scale.

Instructions

Thinking about the [insert name of major or program] courses you have taken and are currently taking in your academic major (i.e., [insert specific majors]), please rate your level of agreement or disagreement with the following statements using the following scale:

1	2	3	4	5	6
Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree

There are no right or wrong answers for these questions. Please answer them honestly. Some of the questions might seem repetitive, but it is important that you answer them all to obtain the best possible results.

Also, note that the word "coursework" refers to anything that you did in these courses, including assignment, activities, readings, etc.

_____ 1. The coursework holds my attention.
_____ 2. I have the opportunity to decide for myself how to meet course goals.
_____ 3. In general, the coursework is useful to me.
_____ 4. The instructors are available to answer my questions about the coursework.
_____ 5. The coursework is beneficial to me.
_____ 6. The instructional methods used in the courses hold my attention.
_____ 7. I am confident that I can succeed in the coursework.
_____ 8. I have the freedom to complete the coursework my own way.
_____ 9. I enjoy the instructional methods used in the courses.
_____ 10. I feel that I can be successful in meeting the academic challenges in the courses.
_____ 11. The instructional methods engage me in the courses.
_____ 12. I have options in how to achieve the goals of the courses.
_____ 13. I enjoy completing the coursework.
_____ 14. I am capable of getting a high grade in the courses.
_____ 15. The coursework is interesting to me.
_____ 16. The instructors are willing to assist me if I need help in a course.
_____ 17. I have control over how I learn the course content.
_____ 18. Throughout the courses, I have felt that I could be successful on the coursework.
_____ 19. I find the coursework to be relevant to my future.
_____ 20. The instructors care about how well I do in their courses.
_____ 21. I will be able to use the knowledge I gain in the courses.
_____ 22. The instructors are respectful of me.
_____ 23. The knowledge I gain in the courses is important for my future.
_____ 24. The instructors are friendly.
_____ 25. I believe that the instructors care about my feelings.
_____ 26. I have flexibility in what I am allowed to do in the courses.

(Jones, 2022)

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