

LEARNING ORIENTATION, MOTIVATION AND SELF-EFFICACY AS TRIGGERS FOR TEACHERS TO ENGAGE IN A NEW TEACHING SETTING

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Abstract: *The research question asked if is there a difference regarding learning orientation of the teachers, their motifs and their self-efficacy level between teachers that engage in a new teaching setting and those who don't. 168 Romanian teachers were questioned using: Learning orientation, Self-efficacy, work motifs and personal motivation to engage in a new project. The results show, that leaning approach differs between teacher who choose to be part in a program that require to change from classic teaching methods to more dynamic, student centred methods. Motivation and self-efficacy did not differentiate between teachers.*

Key words: *learning orientation, motivation, self-efficacy, JOBS, teaching*

1. Introduction

Learning and learning situations depends on many factors, but the main stakeholders are students and teachers. Giving their individual characteristics, both play a crucial role in competence' training and education as large. Personal variables such as beliefs, motives, self-regulation and skills are well documented as contributors to learning outcomes (Berliner, 2001; Hattie, 2012; Keller-Schneider, 2014). Weinert (2001) also states that along with cognitive components the non-cognitive ones are meaningful and need to be taken into consideration. Moreover, the context in which the learning occur favors or block the objectives to be fulfill, with teachers as facilitators and students as explores of the class content. Teaching can be aimed in the way of direct instruction (as in transmissive approach) with little room for students to intervene or in a constructivist approach, with interactive activities and challenging instructional framework, where the students became agents of learning not only subjects. Teachers' involvement in their profession may vary accordingly with their beliefs regarding teaching and learning processes, their motifs and their individual characteristics, and with their understanding of what methods or instruments foster a deeper understanding. Teachers' interest in being part as a teacher in innovative programs varies as well, accordingly.

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2. Methods

2.1. JOBS Program and the Context of the Study

The research is part of a larger project, named JOBS, that aimed to provide students in the 9th and 10th grade in Romania with a setting of lessons designed for prompting students to get to know more about professions, professional life and their own strength and interests. Teachers from different subject's groups work together to teach a class in this JOBS-lessons, using student-focused methods and task-based learning settings, focused on students' learning-activities. Implementing JOBS as a school subject demands a shift in teaching framework, teaching structure, and lesson design. The lessons place an emphasis on interaction: through discourse during the lessons and direct contact with the labor market, students develop knowledge and awareness that are useful for making their career choices.

Teachers design learning opportunities and are responsible for the lessons that should lead to acquisition of competencies amongst students. The developed JOBS setting encompasses not only an intervention targeted at students but also an innovation directed at teachers. In this sense, it is necessary for teachers to engage with the project specific challenges.

The research question asked if is there a difference regarding learning orientation of the teachers, their motifs and their self-efficacy level between teachers that engage in a new teaching setting and those who don't?

The information was gathered from teachers from the intervention group as well as from the control group in the longitudinal time frame of one year.

2.2. Participants

168 Romanian gymnasium - technical college teachers were involved in the program, 115 female, male teachers being underrepresented. The intervention ($N = 84$) and control groups ($N = 84$) do not differ according to the school types (Chi^2 after Pearson (1, $N= 168$) = .755, $p= .404$).

The intervention and control groups with teachers of the gymnasium do not differ according to gender (Chi^2 after Pearson: Total (1, $N= 168$) = .718, $p= .48$).

In both school types, male teachers are underrepresented. This asymmetry is even more prominent in the group of JOBS teachers. In other words, there are considerably more female teachers working on the JOBS project at the technical schools than male teachers.

If the samples of teachers are investigated according to their age distribution, then it can be seen that the greatest frequency of NON-JOBS teachers fall into an age range that is slightly below the average. By contrast, JOBS teachers fall into the average age range. If both samples are compared to the average age, then no significant differences can be ascertained (JOBS $M= 44$ years, $SD = 9.5$;

NON-JOBS $M= 45.2$ years, $SD = 9.15$; ANOVA $F(1, 168) = 102.06$, $p = .29$).

2.3. Design and Instruments

In a pre-post-design with control-groups teachers were inquired by a questionnaire on their individual characteristics, their beliefs on learning, their belief on the importance of

knowledge and the skills concerning professions, professional life for the students, and their motifs in doing their profession. The following instruments were used: Learning orientation (Keller-Schneider, 2012, in preparation), Self-efficacy (Schwarzer, & Jerusalem, 1999), work motifs (Keller-Schneider, 2010, Keller-Schneider & Albisser, 2010, unpublished) and personal motivation to engage in a new project.

Learning orientation questionnaire is divided in two subscale: the constructivist approach, with 6 items (e.g. *The teacher shall encourage the students to find solutions themselves*), with an internal consistency that vary between .62 - .72 depending on the group (Jobs, non-jobs, time 1 and time 2) and the transmissive approach, also six items (e.g. *The students have to copy down the given summaries so they can understand the facts well*), with alpha Cronbach between .46 - .65 (in Jobs and non-jobs groups, time 1 and time 2).

Self-efficacy (Schwarzer, & Jerusalem, 1999) was measured by two subscales: general self-efficacy with 8 items (e.g. *I always succeed in solving difficult problems when I try hard*), with an alpha Cronbach of .88-.90 and self-efficacy related to teaching, ten items (e.g. *I am sure that I can communicate well even with difficult students if I try*) with alpha Cronbach of .76 - .81.

Motifs for work and occupational career ask about what is important for a professional in doing their job, and is a questionnaire divided in four subscales: autonomy, with six items (e.g. *to plan my work very independently*), with alpha Cronbach between .76 - .83; relatedness, with five items (*A work, which expects a close collaboration with my colleagues*), with alpha Cronbach between .75 - .81; challenge, with four items (*A challenging work, which expects a lot of different skills*), with alpha Cronbach between .42 - .54; and meaningfulness, with four items (*Having a kind of work where I can develop something together with colleagues*), with alpha Cronbach between .57 - .69.

The second part of the motifs are investigated by one item level questions that address the reason someone may participate in a program such as JOBS. The answers are on a six points scale claiming the reason of finding the project interesting, being useful to students or because it was a compulsory work task.

The hypothesis of the study claimed that:

H1. Teachers who choose to be part of JOBS project have a constructivist approach on teaching rather than transmissive,

H2. General self-efficacy and teaching self-efficacy differs in Jobs and Non-Jobs teachers, with higher levels in the last category

H3. Work motivation differs in Jobs vs. Non-Jobs teachers, and their personal beliefs regarding the Jobs program, higher motivation being related with becoming a Jobs teacher.

3. Results

The differences between the two groups shows a more suitable approach of learning present in teacher who choose to get involve in task-based learning setting, meaning that JOBS teachers have a constructivist approach on teaching rather than transmissive (Table 1).

Differences in learning orientation of teachers

Table 1

Learning orientation		M	SD	F	df	Eta ²
Constructivist approach	Jobs	5.138	.509	3.765*	1	.022
	Non-Jobs	4.958	.678			
Transmissive approach	Jobs	4.480	.700	9.715**	1	.055
	Non-Jobs	4.789	.580			

*p < *, ** p < ., *** p < .001, n.s. = not significant

No significant differences were found between the two groups regarding self-efficacy, separated in general self-efficacy and self-efficacy concerning teaching skills (Table 2).

Differences in self-efficacy of teachers

Table 2

Self-efficacy		M	SD	F	df	Eta ²
General self-efficacy	Jobs	4.941	.620	1.059	1	.007
	Non-Jobs	4.835	.663			
Teaching self-efficacy	Jobs	5.010	.479	1.227	1	.009
	Non-Jobs	4.915	.511			

*p < *, ** p < ., *** p < .001, n.s. = not significant

Jobs and Non-Jobs teachers don't differ in their work motifs, captured by four dimension, except the motifs of relatedness (Jobs-teachers higher than Non-Jobs-teachers). Relatedness refers to preference for a type of work that involves participation with other colleagues in work tasks, collaborative working, sharing ideas and sharing resources. Differences are also found in very particular motifs, directly related with participating in JOBS project, specifically Jobs teachers declared that they entered the program because they consider it to be interesting and beneficial to the students (Table 3 and Table 4).

Differences in work - motivation of teachers

Table 3

Work motivation		Autonomy	Relatedness	Challenge	Meaningfulness
M (SD)	Jobs	5.29 (.664)	5.49 (.555)	4.34 (.642)	5.40 (.548)
	Non-Jobs	5.22 (.710)	5.35 (.546)	4.40 (.552)	5.29 (.490)
F		.501	2.91*	.457	1.93
Eta ²		.003	.017	.003	.012

*p < *, ** p < ., *** p < .001, n.s. = not significant

Differences in personal motifs of teachers

Table 4

Personal motivation		Interesting ³	Useful for students ³
Mean rank	Jobs	95.50	91.07
	Non-Jobs	70.35	74.84
Z		-4.215***	-2.662**

³ on Item-level

*p < *, ** p < ., *** p < .001, n.s. = not significant

4. Discussion and Conclusions

Teachers involved in Jobs-program as an innovative leaning setting differ in their teaching and learning orientation (more constructivist and less transmissive). They consider the program more interesting and more relevant for the students, two reasons that triggers involvement in teachers. In their work-motivation and self-efficacy they don't differ.

A specific teaching and learning orientation drives teachers to engage themselves in innovative teaching and learning-settings, but no specific work-motivation and not a specific self-efficacy is needed.

The results confirm the findings of Blömeke (2011) and Reusser, Pauli, & Elmer, (2011) that sustain the claim that if a setting is design careful, it should lead to the attainment of goals, even if the teachers do not know how to conduct interactive settings of learning or do not bring with them beliefs that fit to learning approach. These findings open the perspective of the importance of designing meaningful and creative learning materials and promoting interactive lessons in order to facilitate positive learning outcomes.

Acknowledgements

The results presented in this paper are part of JOBS program, initiated by the Centre for International Projects in Education (IPE) of the Zurich University of Teacher Education and founded by Swiss – Romanian Cooperation Program.

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References

- Berliner, D.C. (2001). Learning about and Learning from Expert Teachers. *International Journal of Education Research*, 34, 463 - 482.
- Blömeke, S. (2011). Forschung zur Lehrerbildung in internationaler Perspektive [Research on teacher training in an international perspective] In E. Terhart, H. Bennewitz, & M. Rothland (Eds.), *Handbuch der Forschung zum Lehrerberuf* [Research manual on teachers Training], p. 345-361. Münster: Waxmann.
- Hattie, J. (2012). *Visible Learning for Teachers: Maximizing Impact on Learning*. London: Routledge.
- Keller-Schneider, M. (2010). *Entwicklungsaufgaben im Berufseinstieg von Lehrpersonen. Beanspruchung durch berufliche Herausforderungen im Zusammenhang mit Kontext- und Persönlichkeitsmerkmalen*. Münster: Waxmann.
- Keller-Schneider, M. & Albisser, S. (2010). Ressourcenentwicklung im Umgang mit Berufsanforderungen (RUMBA). *Messinstrumente zur Erfassung von individuellen und kollektiven Ressourcen von Schulen*. Zürich: Pädagogische Hochschule, unpublished.
- Keller-Schneider, M. (2011). Lehrer/in werden – eine Entwicklungsaufgabe! Kompetenzentwicklung in der Auseinandersetzung mit Wissen und Überzeugungen: *PADUA*, 6(4), S. 6-14.
- Keller-Schneider, M. (2012). Selbstreguliertes Lernen an der Hochschule und die Bedeutung von individuellen Ressourcen der Studierenden für die Entwicklung professioneller

- Kompetenzen. Instrumente der Begleitstudie zur Lehrveranstaltung, *Lernstrategien erwerben und Lernprozesse begleiten*, Pädagogische Hochschule Zürich, unpublished.
- Keller-Schneider, M. (2014). Self-Regulated Learning in Teacher Education – The Significance of Individual Resources and Learning Behavior. *Australian Journal of Educational & Developmental Psychology*, 14, 144-158.
- Reusser, K., Pauli, C. & Elmer, A. (2011). Berufsbezogene Überzeugungen von Lehrerinnen und Lehrern [Vocational beliefs of teachers]. In E. Terhart, H. Bennewitz & M. Rothland (Eds.). *Handbuch der Forschung zum Lehrerberuf* [Research manual on teachers Training] p. 478-496. Münster: Waxmann.
- Schwarzer, R. & Jerusalem, M. (1999). Skalen zur Erfassung von Lehrer- und Schülermerkmalen. Dokumentation der psychometrischen Verfahren im Rahmen der Wissenschaftlichen Begleitung des Modellversuchs Selbstwirksame Schulen. Berlin: Freie Universität Berlin. <http://userpage.fuberlin.de/health/germscal.htm>
- Weinert, F.E. (2001). Concept of Competence: A conceptual clarification. In D. S. Rychen & L. H. Salganik (Eds.), *Defining and selecting key competences*, p. 45-65. Seattle: Hogrefe & Huber.