

**Revista Romaneasca pentru Educatie  
Multidimensionala**

Romanian Journal for Multidimensional Education

ISSN: 2066 – 7329 (print), ISSN: 2067 – 9270  
(electronic)

Covered in: Index Copernicus, Ideas RePeC,  
EconPapers, Socionet, Ulrich Pro Quest, Cabell, SSRN,  
Appreciative Inquiry Commons, Journalseek, Scipio,  
EBSCO, CEEOL, ERIH PLUS

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MOTIVATION**

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Revista Romaneasca pentru Educatie Multidimensionala,  
2015, Volume 7, Issue 1, June, pp. 193-202

The online version of this article can be found at:

<http://revistaromaneasca.ro>

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Published by:

Lumen Publishing House

On behalf of:

Lumen Research Center in Social and Humanistic Sciences

# Perception of Pre-Service Teachers Regarding the Relationship between Didactic Competencies and Learning Motivation

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## Abstract

*This paper aims at analysing the perception of agricultural sciences pre-service teachers regarding the relationship between didactic competencies and learning motivation. According to specialists, there are four components of didactic competence: scientific competence, psycho-social competence, managing competence and psychopedagogical competence. In our study, we primarily intend to determine the students' perception concerning the impact of those four didactic competences over the learning motivation. Secondly, we aim at analysing the relationship between the competences students consider to be relevant for the learning motivation and didactic competences they wish to acquire by the end of the psychopedagogical program. The study was accomplished during the university year 2014-2015 over a batch of 65 participants, students attending the second year of study at the Faculty of Agriculture. The collected data was obtained by the method of enquiry and using a questionnaire of opinion as a tool, which contained 24 closed, pre-coded questions. The obtained results have revealed that agricultural sciences pre-service teachers consider that among the didactic competences, the most powerful impact over learning motivation belongs to the psychopedagogical competence ( $M=4.47$ ), followed by the scientific competence ( $M=4.40$ ) and the psychosocial competence ( $M=3.74$ ). Also, the scores reflecting the importance of those competences regarding the motivational factor positively and significantly correlates with the scores reflecting the level at which students wish to develop those competences (e.g. psycho-pedagogical competence  $r=0.71$ ;  $p<0.01$ ). These findings*

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*bring their contribution to getting a clearer image over the accomplishment of some success performances in training students for the didactic profession.*

**Keywords:**

*Didactic competencies, Learning motivation, Pre-service teachers.*

**1. Introduction**

Teachers' personality and competencies represent key-elements towards an increase in learning motivation; these aspects have stand as research interests for many specialists even since the 60's (Fisher & Kent, 1998; Isaacson, McKeachie & Milholland, 1963; Jones, 1989; Samfira & Gavrilă, 2008; Samfira, Gavrilă & Beu, 2008; Walberg, 1968). According to the specialty studies (Magher, 2005), at the basis of learning motivation there are two categories of factors: internal factors (biological and psychological) and external factors for the student (pedagogical, social and economic factors). Relating to the external factors, we consider that a decisive role in intensifying the learning motivation is played by the quality of teaching and evaluation, along with teacher's personality (Brophy, 2004; Haber, Tulbure, Samfira, in press; Hardre and Reeve, 2003). The quality of teaching and evaluation is determined by the level of development of teacher's didactic competencies (Abd-El-Khalick et al., 1998; Lederman, 1999).

According to Păun, Iucu & Șerbănescu (2008), there are four components of didactic competencies: the scientific component (capacity of selection, bringing up-to-date and transmission of scientific information, creative and resolute strategies etc.), the psycho-social component (the capacity to build democratic relationships with students, the capacity to communicate and adjust to diverse social roles etc.), the managing component (abilities for planning, design, organizing and control, leadership etc.) and the psycho-pedagogical component (the capacity to make accessible and transmit the didactic information, also the capacity to understand the students and to differentiate instruction etc.). We have considered this didactic competence analysis relevant for the objectives of our research so we have adopted it as a theoretical and methodological reference point for the present study.

The beliefs of pre-service students opposite the development level of didactic competencies they think their poses are extremely

important because they represent the starting point of the search for information and experiences meant to help them improve the level of their competence. Numerous pieces of research reflect the role of future teachers' way of thinking and beliefs as determinants for a change in the teaching-learning process (Hofer & Pintrich, 1997, Schommer, 1993). Collette & Chiappetta (1994) have approached the issues regarding intentions, attitudes and beliefs of individuals who play a crucial role in transferring their knowledge into observable behaviours.

According to Brophy (2004), students should be helped "to identify and use appropriate evaluation standards". In order to succeed beyond each stage in accomplishing a purpose, students should be guided to set proximal aims, as those are much easier to attain, they increase confidence in personal capacities (Brunstein & Olschner, 1996) and help students surpass their frustrations (Turner & Schallert, 2001). Self-evaluation help students follow their own progress, change or improve their ways of accomplishing purposes, and that in its turn "has positive effects on their motivation and learning" (Brophy, 2004); the important thing for them is to be patient, ask for help from the specialists in the field and not to abandon when the first sign of failure appear. Success or failure in accomplishing purposes have an overwhelming influence in motivating or de-motivating students when learning (Hynd et al., 2000, cited by Tuan, Chin & Shieh, 2005). On the basis of self-evaluation results, students become active builders of new knowledge, so that under perceptions opposite to the level of competencies necessary to a teacher, they will develop their own "scaffolding" to attain the prospected level.

In reference to these theoretical aspects, by this paper we will try to offer scientific answers to two research issues:

*Which are the components of didactic competence that have the strongest influence upon the learning motivation?*

*What is the relationship between competencies that motivate students towards learning and competencies they wish to develop during the psycho-pedagogical program?*

## **2. The objectives of the study**

Leaving from the two research issues, the proposed cross-sectional study aims at two objectives:

- to determine the students' perception concerning the impact of the four didactic competence components (scientific, psycho-

- social, managing and psycho-pedagogical components) upon learning motivation;
- to analyse the relationship between the competencies students consider to be relevant for the learning motivation and didactic competencies they wish to acquire by the end of the psycho-pedagogical program

### **3. Method**

#### **3.1. Procedure**

The study was accomplished during the first semester of the academic year 2014-2015. Along the courses in Pedagogy, a questionnaire of opinion was applied in order to measure both the perception concerning the impact of the didactic competences over the learning motivation, and the level to which students wish to develop these competences. Data has been processed with the computer program SPSS 17.0.

#### **3.2. Participants**

The sample consisted of 65 pre-service teachers, students attending the second year of study at the Faculty of Agriculture. Their ages ranged from 20 to 26 years old ( $M=20.55$ ;  $SD=1.19$ ). The batch included 28 men and 37 women students. The selection of participants was based on willingness to participate in this research study.

#### **3.3. Measures**

The collected data was obtained by the method of enquiry and using a questionnaire of opinion as a tool, which contained 24 closed, pre-coded items. The questionnaire was built based on the didactic competence model proposed by Păun, Iucu and Șerbănescu (2008), a model that was adopted as a theoretical and methodological guide mark of the present study. Thus, the questionnaire comprised 6 items for each of the four components of didactic competence: scientific, psycho-social, managing and psycho-pedagogical competence components, and the students offer scores from 1 (minimum level) to 5 (maximum level) for each indicator. In addition, the questionnaire had two more headings: one for self-evaluation (in which students appreciate, also on the 1 to 5 scale, the level at which they think they had developed each competence indicator) and another which is prospective (where students indicated the

level they wished to reach in developing each competence indicator at the end of the psycho-pedagogical training program).

#### 4. Results

##### 4.1. Students' perception regarding the impact of didactic competencies upon the learning motivation

**Table 1.** Mean and standard deviation scores for didactic competences

Didactic competencies	Mean	SD
Psycho pedagogical competence	4.47	0.75
Scientific competence	4.4	0.64
Psycho social competence	3.74	0.5
Managing competence	3.53	0.56

When we analyse students' opinion regarding the impact of didactic competencies upon the learning motivation, we find that the psycho pedagogical competence is considered most relevant for the initiation and support of academic learning. By using the instruction and evaluation methodology, and by acknowledging the students' personality and adapting the contents to the educated individuals' specific, teachers seem to succeed in best motivating their students. The manner of approaching the contents, especially the didactic methods and means that are used intensify, in students' opinion, their intrinsic motivation to learn. Secondly there comes the scientific competence, which means students are strongly motivated by the teacher's level of scientific training and intellectual development. The teacher's mastering of the subject, intelligence, creativity and resolute strategies represent a strong motive at the basis of the learning activity. More than that, students are motivated to learn by the psycho-social abilities of the teacher, by the way the teacher interact with students, the quality of didactic communication and the socio-emotional relationship built between teacher and those educated. Last in this hierarchy there stands the managing competence, which conveys the fact that students do not consider the manner in which teachers organize and lead the group of students, their leading abilities or those relating to planning and design as being very relevant for the activation of learning.

#### 4.2. The relationship between the didactic competencies aimed towards development and competencies considered relevant for learning motivation

**Table 2.** The correlation between the didactic competencies aimed towards development and competencies considered relevant for learning motivation

Didactic competencies	Pearson Correlation $r$	Significance $p$
Psycho pedagogical competence	0.71	$p < 0.01$
Scientific competence	0.69	$p < 0.01$
Psycho social competence	0.72	$p < 0.01$
Managing competence	0.74	$p < 0.01$

Regarding the relationship between the competencies students consider to be relevant for the learning motivation and the didactic competencies they wish to acquire, we find that there is a direct correlation, strongly significant for each of the four analyzed competencies. More precisely, there is a strong connection between the motivational value students confer to a didactic competence and the level they wish to develop that competence until the end of the study program. After an accurate analysis, we observe that the values of the four correlation coefficients are much closed (between 0.69 and 0.74), which leads us to consider that students look upon the didactic competence in a holistic manner and aspire to develop it, on all four components, to a superior level.

#### 5. Discussion and conclusion

The results obtained through this study draw attention upon the special role of the didactic competence as against two essential aspects: students' learning motivation and their desire to build and develop their own didactic competence. These results are aligned with the research paths of the contemporary university pedagogy and are in agreement with the results of other studies which reveal the impact of didactic competence upon the motivational factors (Haber, Tulbure, Samfira, in press; Brophy, 2004). There are research papers which study teachers' motivational competencies and indicate that good instruction is

performed by highly qualified teachers who can motivate students to learn under diverse condition (Hardre & Reeves, 2003). As for the didactic competence level students wish to reach at the end of the training program, we also conclude that, similar to other studies from the specialty literature, our study draws attention upon the role of beliefs and personal convictions in initiating changes in the teaching-learning process. (Hofer & Pintrich, 1997).

The study is relevant for university education theoreticians and practitioners, and also for pre-service teachers, as it aims at outlining some guiding points to intensify motivation, teaching and learning in higher education. This research provides openings to conduct experimental studies related to teaching competencies during the teacher preparation program. The obtained results can also be used to improve the pedagogical practice, in order to help teacher candidates to develop maximally their teaching competences.

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### Biodata



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