Pedagogical Competences – The Key to Efficient Education

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Abstract

The aim of our study is to provide a holistic representation of pedagogical skills closely related with current approaches in the field of professional competence for the teaching career. The paper covers three dimensions from the perspective of pedagogical competences. The first dimension is on the *definition* of pedagogical competence. The concept of pedagogical competence tends to be used with the meaning of minimum professional standard, often specified by law, which should raise a person in fulfilling a particular role of the teaching profession. The second dimension is based on representative *taxonomies* and highlights current pedagogical competences. The taxonomic classification, which we provide below only refers to the basic competences involved in the based role of a teacher to lead one of the educational activities with students. The third dimension is represented by a proposal in a narrow framework of a *holistic representation* of pedagogical competences for the teaching career. In the holistic view, we delineate two broad categories of pedagogical competences in accord with current approaches: general pedagogical competence and special pedagogical competence. After analyzing the pedagogical competences taxonomies, we obtained a comprehensive and actual representation. This representation allows a better understanding of the general and secondary categories of pedagogical competences. The study was unfolded in CNCSIS – TE 282/July 2010 "INOVACOM – Curricular innovations for the development of the pedagogical competencies of teachers of Romanian Language and communication through initial training programmes for teachers".

Key Words: pedagogical competences, holistic approach, taxonomy

Introduction

Pedagogical competence has been researched at the level of the individual, the team, the group, or the organization, with an inclusion of all of these three dimensions in the larger frame of the community thus considering a variety of factors such as: psychological, interactional, organizational, managerial, administrative, social, economic, cultural (ethnical, religious, of gender, class, age, etc.). In the holistic presentation that we intend to achieve we have only presented definitions which come with different perspectives so as to form as complex a view as possible upon the concept of pedagogical competence and this because we regard the pedagogical competences in close connection with three

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important factors of education: educational achievement/ success/ efficiency, professional development and societal change. Pedagogical competences can be viewed at either end of the axis as, on the one hand, they help the reaching of achievement/ obtaining of success/ development of efficiency, the forming of quality, highly adaptive professional development and they influence societal change by the standards (see Oser and Oelkers, 2001) they impose in the educational process and on the labour market and, on the other, they are influenced by all of the above (see figure 1). Therefore, a good knowledge of pedagogical competence, their typology and principles of development will lead to a future successful application/ use in any field developing interdisciplinary thinking, creativity and managerial qualities in any field.
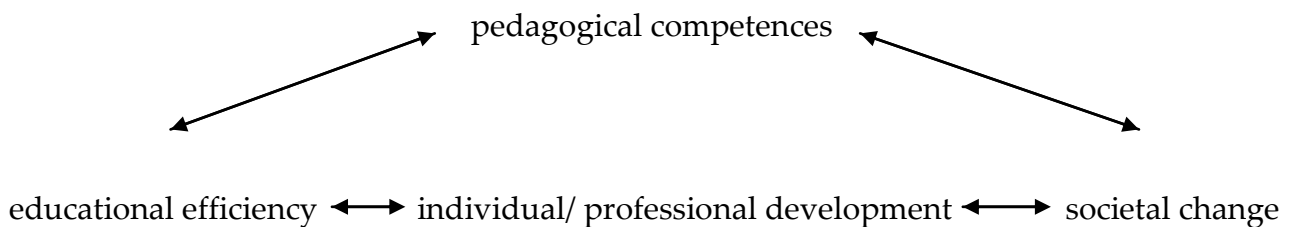
pedagogical competences

educational efficiency ⟷ individual/ professional development ⟷ societal change

Figure 1. The interdeterminancy of pedagogical competences

Thus, we attempt in our study to provide a generic presentation of pedagogical competences, offering a definition which aims at outlining the trajectory of application of any educational process from the perspective of pedagogical competences: *stages* ⇨ *components* ⇨ *factors* ⇨ *contexts* ⇨ *levels* ⇨ *degrees* ⇨ *resources* ⇨ *purpose/ standards*.

Defining Pedagogical Competence

Generally speaking, pedagogical competences have been regarded either as an ensemble of potential behaviours/ capacities allowing for efficient manifestation of an activity, or as a minimum professional standard, often specified by law, which professionals should reach. It is from these two perspectives that theorists have attempted more and more complex definitions so as to comprise multiple variables which would lead to better application of education through competences.

Thus, one first definition is constructed by taking into consideration the resources used in an educational process starting from and based on developing competences. Thus, this

approach regards pedagogical competence as "the ability of an individual to use a coordinated, synergistic combination of tangible resources (e.g. instruction materials such as books, articles, and cases and technology such as software and hardware) and intangible resources (e.g. knowledge, skills, experience) to achieve efficiency and/ or effectiveness in pedagogy" (Madhavaram, Laverie, 2010, p. 5).

The concept of pedagogical competence also tends to be used with the meaning of minimum professional standard, often specified by law, which should raise a person in fulfilling a particular role of the teaching profession (Gliga, 2002). The emphasis in understanding pedagogical competence should thus fall on the integrated features which outline the ability to solve pedagogical problems and typical pedagogical tasks occurring in situations of real pedagogical activities by applying knowledge, professional and life experience, values and talents in a creative manner so to obtain appropriate and effective results.

Other attempts to define competence have regarded the notion from the perspective of human resource management, of vocational training and education, in the attempt to observe the importance of the interdependence between personal characteristics, proficiency level and context (Sampson, Fyrtos, 2008, pp. 6–9) but there have also been attempts to regard competences/ competencies (we develop in another paper the distinction between them, Suciu, Mâţă, 2010) from the strict perspective of evaluation (Ryegård, 2010, pp. 15–17) and connect them with professional standards (see Oser, Oelkers, 2001).

Regardless of the level at which pedagogical competence is analyzed a special attention is given to the results obtained in any educational process developed through the perspective of competence(s) thus stressing on the performance to which the various methodical algorithms for achieving teaching tasks are selected, combined and put into effect depending on the changes of the situational context in which the educational activities are realized with students (Diaconu, Jinga, 2004).

In strict reference to the teacher, pedagogical competence reflects the teacher's competence in regard to collaboration, comprehensive view and contribution to the development of pedagogy for higher education (Ryegård, 2010, p. 11).

Having as a pivot Schneckenbeg and Wildt's (2010, p. 30) stages of developing professional competence and the definitions of pedagogical competence presented above we have developed the following presentation of a complex definition of pedagogical competence conceiving this process as having some *stages* in which different *components* are activated for the fulfilling of whose purpose certain *factors* manifesting in various (but real, professional backgrounded on change) *contexts*, at various *levels* of application and with different *degrees* of difficulty (from simple to complex) having as a support certain (aptitudinal, attitudinal, temporal, material, cultural, organizational) *resources* need to be considered in order to reach a final educational *purpose/ standards* (Table 1).

Table 1. Criteria involved in defining pedagogical competences

Stages	Components	Factors	Context	Level of application	Purpose/ standard
transmission/ insertion/ teaching	information/ contents of learning	physical (capacity of cognitive acquisition)	*educational* (institutionalized/ familial) *psychological* (behavioural/ environmental) interactional (personal/ professional) *administrative* (traditional/ innovative) *organizational* (classroom management/ curriculum management) *social* (of class, race, gender, age) *economic* (public/ private school; developed/ poorly developed country) *cultural* (ethnical, religious)	individual	- development of individual (long term) competences;
including information in a network of meaning	knowledge	intellectual (capacity of performing judgment)		team	- increase of motivation; - developing individual, collective and administrative responsibility;
applying knowledge in context	abilities/ skills	behavioural/ functional (power of adaptation)		group	- development of interpersonal communication;
combining ability with attitude	performance	instrumental (handling skills and resources with motivation)		organization	- development/ improvement of models of curriculum;
attaining competence	appropriateness and effectiveness	actional (using skills at maximum level)		community	- development of professional competences

Taxonomy of Pedagogical Competences

The taxonomies we present as a result of our research aim at demonstrating the importance of regarding pedagogical competences from as various perspectives as possible/ with as many implications as possible – cognitive, managerial, psychological, ICT, personal, social, etc. – to be able to develop an integrative curricular model of teaching languages through focus on competences in our future research and, ultimately reach a final, realistic, positive result in the educational process.

From the perspective of taxonomy, the term pedagogical competences is synonymous with the singular task of work specific to the teaching profession, achieved at a certain level of performance. The main problems of achieving such taxonomies were to identify (inventory) various kinds of specific tasks of the teaching profession, to consider them as categories of behaviours and order them according to their complexity. As a degree of generality, pedagogical competences are part of professional competence for the teaching career. The framework of professional competences in Romania includes six categories of competences (Gliga, 2002): methodological, communication and relationship, student assessment, psycho-social, technical and technological, career management.

Next, we present several proposals for classification only at the level of pedagogical competences. The taxonomic classification, which we provide below, refers only to the basic competences manifest in the activity of a teacher to various types of educational activities with students. Other roles, such as the role of adviser to students, of school manager are specific for other professional competences. We extracted from the general classifications of professional competences for the teaching career only the types of pedagogical competences (Table 2).

Table 2. The taxonomy of pedagogical competences by different criteria

Approach	Types of pedagogical competences
L. Marbeau,	• pedagogical analysis of the contents newly introduced in programmes; • analysis of the knowledge characteristics to teach;

F. Audigier (1990)	• assessment and evaluation of students' behaviour; • design training; • management training process; • fulfillment of organizational/ administrative duties; • developing professional mastery.
J.E. Ormrod (1998)	• setting educational objectives; • identifying and developing learning activities; • continuous monitoring of student progress

Bankauskienė, Augustinienė, Čiučiulkienė (2005)	• *Transferable competencies*:
	  - social competence;
	  - learning to learn competence;
	  - competence of the effective action;
	  - communicative competence;
	  - competence of the information management;
	  - project management competence;
	  - action research competence;
	• *General pedagogic competence*:
	  - the competence to implement educational ideas and IT;
	  - the competence to promote active and innovative learning environments and programs;
	  - the competence to motivate and support the pupils;
	  - socio-cultural competence;
	• *Special pedagogic competence*:
	  - pre-elementary educational competence;
	  - elementary educational competence
	  - general and secondary educational competence;
	  - competence of special education;
	  - competence of career education;
	  - competence of informal training

Rodzevičiūtė (2006, p. 10)	• management competency (planning organization, managing, evaluation, additional education organization, and managing competences); • pedagogical-psychological competency (includes gnostic, motivation, methodical and lifelong improvement competences); • methodical-didactic competency (methodical-didactic, didactic-managing, didactic-social and methodical lifelong learning competence); • expression competency (expression and communicative competences); • communicative competence (includes communicative-cognitive, communicative-methodical-didactic and communicative cognitive competencies); • cognitive competency (includes cognitive lifelong learning, cognitive-managing and cognitive-social competencies)
F. J. Prins R. J. Nadolski A. J. Berlanga H. Drachsler H. G. Hummel R. Koper (2008)	• interpersonal competence; • pedagogical competence; • subject knowledge & methodological competence; • organizational competence; • competence for collaboration with colleagues; • competence for collaboration with the working environment; • competence for reflection and development
Madhavaram, Laverie (2010)	• content knowledge; • knowledge of pedagogical approaches; • course management capability; • classroom management capability; • student management capability
	• personal competence;

Schneckenberg, Wildt (2010)	• social competence; • communicative competence; • methodical competence; • subject-specific competence
Rodzevičiūtė (2010, p. 314)	• cognitive competence; • information technology competence; • methodological competence; • planning competence; • organizational competence; • leadership competence; • motivational competence; • assessment competence; • communicative competence; • expressive competence; • lifelong learning competence; • project management competence; • additional education organization competence; • social competence.

We also present at this point the eight key competences proposed by the European Council (2006) as a starting point for efficient pedagogical education with a view to the fast and flexible integration in the contemporary context of professional development in an interconnected world: communication in the mother tongue, communication in foreign languages, mathematical competence and basic competences in science and technologies, digital competence, meta-cognitive competences (learning to learn), social and civic (interpersonal) competences, sense of initiative and entrepreneurship, cultural awareness (intercultural competence) and expression.

But contemporary views on the process of education through focus on the development of pedagogical competences do not refer strictly to methodological competences and

assessment competences as this process has to be viewed in all its aspects so as to attain genuine efficiency and to form learners not only as knowledgeable individuals in a field but also capable to integrate in various sectors of the labour market and organize their activity and develop top to bottom projects.

Thus, the National Centre for the Formation of Teachers from Pre-academic Education has developed a 5-level grid for basic competences in the didactic profession with 3 levels of manifestation, from simple to complex:

- basic competence 1 – facilitating innovative processes of teaching and learning focused on students;

- basic competence 2 – evaluating and monitoring results in teaching and learning;

- basic competence 3 – planning and playing the curriculum, syllabi and didactic methods and materials of formation;

- basic competence 4 – forming partnerships inside and outside of school;

- basic competence 5 – involvement in the process of individual and professional development.

Another classification of pedagogical competences can be delimited by level of analysis: international, which is general, and national, which is specific to each country (Table 3).

Table 3. The taxonomy of pedagogical competences after analysis framework

Level	Types of pedagogical competences
Basic competences internationally recognized at the general level for didactic professions (2007)	• conduct a student-centered teaching process; • planning and implementation of curriculum, work programmes, training materials and teaching methods (planning and teaching)
The competences framework for teachers in Romania (2007)	• methodological competences; • assessment competences.

In the holistic view we develop, we also draw attention towards two broad categories of pedagogical competences in accord with current approaches: general pedagogical competence and special pedagogical competence. Each category of pedagogical competences includes several types of competences.

With strict reference to the process and education and in relation to implementation of various educational programmes the categories of general pedagogical competences have been identified to include methodological competences and assessment competences.

The methodological competences are the following:

- appropriate use of concepts and theories of science education (interdisciplinary approaches, general and specialty didactic, psychology, education philosophy, the new education in the "knowledge society");
- applying concepts and modern theories regarding knowledge capacity building;
- design of instructional and educational contents;
- appropriate organization of didactic activities in accordance to the dominant lesson type;
- use of teaching methods and strategies closely related to the individual/ group particularities and the purpose or the type of lesson;
- setting materials and teaching aids used in learning activities;
- optimum use of space-time factors for the efficiency of the educational process;
- manifestation of an innovative methodological conduct in professional plan;
- achievement of instructional and educational activities.

The assessment competences are following:

- design evaluation (phases, forms, types);
- application of appropriate strategies for individual / group assessment;
- elaboration of assessment tools depending on the purpose and the individual / group particularities;
- use of specific methods of critical thinking.

Synthesizing, we can identify the following categories of pedagogical competences: professional-scientific, psycho-pedagogical, psycho-social and relational, managerial and

institutional sometimes all of these being analyzed according to some standards (therefore being measurable) and other times, having no standard to relate to (therefore with a high degree of subjectivity).

Only an attempt to cover as many as possible from these pedagogical competences when designing curricular programmes and when implementing syllabi will lead to a successful educational process sometimes also bearing in mind categories of special pedagogical competences (general and secondary educational competence and competence of special education).

Conclusions

Pedagogical competences can be found in concrete terms with the other subcategories, such as communication and relationship competences or classroom management. Through this holistic approach, we were able to distinguish between general pedagogical competences, such as methodological and assessment competences and special skills that correspond to other categories, such as information technology, classroom management, career management. In turn, each type of competence can be observed by specific sets of behaviours expected from teachers. After analyzing the pedagogical competences taxonomies, we obtained a comprehensive and actual representation. This representation allows a better understanding of the general and secondary categories of pedagogical competences. The holistic approach of different perspectives on pedagogical competences taxonomies provides a better understanding of the specific categories. The current approach is a starting point for the other research centered on pedagogical competences.

References

Bankauskienė, N., Augustinienė, A., Čiučiulkienė, N. (2005). The expression of teacher competencies in action research field: the case-based study of KTU teacher education program Pedagogy. Paper presented at the European Conference on Educational Research, University College Dublin, 7-10 September 2005.

Cuesta, Ezequiel Alvarez. Developing the pedagogical competence. Available at https://docs.google.com/viewer?a=v&q=cache:QRIXzvKHnu8J:www.campusvirtual gitt.net/mesa_de_trabajo/Documentos/ponenciaEzequiel.doc+developing+the+peda gogical+competences+cuesta&hl=it&gl=ro&pid=bl&srcid=ADGEESgYyIPBzoEXEpg Hq6DOibZrFVXHfgfdt6iJ-qqqIHQzzTyzMhxwgWZOcKUtqph-eWwd86k1FVIOgV6n_yLllHgB_vD363kmJfF0pPH-R3rmeMEdlvQkKF9lHnjLyEawaKeGXbSe&sig=AHIEtbRY0tcP5EkT9wEfTXTxyEQ r97s9AA

Diaconu, M., Jinga, I. (coord.) (2004). *Pedagogie*. Bucureşti: Editura Academia de Studii Economice.

Gliga, L. (coord.) (2002). *Standarde profesionale pentru profesia didactică*. Bucureşti: M.E.C.

Madhavaram, S., Laverie, D.A. (2010). Developing Pedagogical Competence: Issues and Implications for Marketing Education. Journal of Marketing Education, vol. XX, no X, pp. 2-10.

Jäenecke, B. (2007). *Competenţele profesorilor şi ale directorilor de licee din mediul rural din România şi din alte state din Uniunea Europeană - analiză comparativă*. Bucureşti : CNFP.

Marbeau, L., Audigier, F. (1990). *La formation aux didactiques*. Actes du coloque. Paris : Institut National de Recherche Pédagogiques.

Naumescu, Adrienne Kozan (2008). Science Teacher Competencies in a Knowledged Based Society. *Aca Didactica Napocensia*, 1 (1), pp. 25 – 31.

Ormrod, J. E. (1998). *Educational Psychology. Developing Learners*. New Jersey: Merrill/ Prentice Hall, 2nd Edition.

Oser, Fritz K., Achtenhagen, Reynold, Ursula (eds.) (2006). *Competence Oriented Teacher Training. Old Research Demands and New Pathways*, Rotterdam/ Taipei: Sense Publishers.

Oser, Fritz, Oelkers, J. (2001): *Die Wirksamkeit der Lerhrerbildungssysteme. Von der Allrounderbildung zur Ausbildung profesioneller Standards.* Zürich: Rüegger Verlag.

Prins, F. J., Nadolski, R. J., Berlanga, A. J., Drachsler, H., Hummel, H. G. K., Koper, R. (2008). Competence Description for Personal Recommendations: The Importance of Identifying the Complexity of Learning and Performance Situations. *Journal of Educational Technology & Society*, 11 (3), pp. 141–153.

Ryegård, Åsa (2010). *A Swedish Perspective on Pedagogical Competence*. Uppsala: Uppsala University.

Rodzevičiūtė, E. (2006). Substanciation of Content and Structure of a Secondary School Teacher's Pedagogical Competency" (summary of doctoral dissertation). Vilnius Pedagogical University.

Rodzevičiūtė, Emilija (2010). Formation of Student Teachers' Pedagogical Competence during Teaching Practice. in Carlsburg, Gerd-Bodo von (Hrsg./ ed.) (2009). *Qualität von Bildung und Kultur. Theorie und Praxis/ The Qualiy of Education and Culture. Theoretical and Practical Dimensions*. Volume 17, Frankfurt am Main: Peter Lang Internationaler Verlag der Wissenschaften, pp. 313–322.

Sampson, Demetrios; Fytros, Demetrios (2008). *Competence Models in Technology-enhanced Competence-based Learning*, available at

http://dspace.learningnetworks.org/bitstream/1820/1196/1/Sampson-Fytros-CompetenceBasedLearning.pdf

Suciu, Andreia, Mâţă Liliana (2010). Conceptual delimitations regarding pedagogical competenc(i)e(s). *Educația Plus*, Universitatea "Aurel Vlaicu" from Arad, Facultatea de Ştiinţe ale Educaţiei, Psihologie și Asistență Socială, (2) 12, pp. 189–200.

Schneckenberg, Dirk; Wildt, Johannes (2010). *Understanding the Concept of eCompetence For Academic Staff*. available at http://www.ecompetence.info/uploads/media/ch3.pdf, Site visited on October 2nd 2010.

*** European Council (2006). Recommendation of the European Parliament and of the European Council of 18th December 2006 on key competences for lifelong learning. Available at

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32006H0962:EN:NOT