

PROFESSIONAL DEVELOPMENT OF PEDAGOGUES: COMPETENCIES AND QUALITY INDICATORS

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This article reports on the first phase of a research project which focuses on the development of competencies and their indicators required of quality professional pedagogues in the knowledge society. Faculty in the undergraduate and graduate teacher education programs in the College of Education at the Pontifícia Católica Universidade do Rio Grande do Sul (PUCRS) in Brazil identified and elaborated five essential competencies using the focus group method. They are: knowledge of the area of expertise, didactic-pedagogical action, management of educational processes, investigative action, and exercise of citizenship. The research points towards the need to move on to the next phases of the project dealing with the analysis of student thinking and that of the employers and civil society as a whole.

Keywords: Brazil, pedagogy, professional development, PUCRS, quality indicator, teacher competency

With the advent of globalization, more freedom of economic activities among countries, and the universalization of the knowledge society, the need for high quality professionals in all areas of human resources is increasing. This demands thinking about quality academic education in general, and specifically for the professional development of the graduate of the Pedagogy Program at the the Pontifícia Católica Universidade do Rio Grande do Sul (PUCRS). This program prepares teachers who work with students in the initial years of schooling. The teachers who are graduates of higher education programs return to university for their teacher education. They are participating in the educational process, as teachers and as learners, illustrating the cyclic dynamic of the teaching and learning process (Felicetti, 2010). They hope to become competent teachers.

What is Teacher Competency?

Quality education for teachers means preparing them for teaching effectively. This means that they can produce demonstrable results in terms of the acquisition and use of competencies (Cabrera, 2010; Cabrera & La Nasa, 2008). What does this mean? According to Sugumar (2009) competency can be defined as: “An underlying characteristic of an individual that is causally related to criterion referenced effective and or superior performance in a job or situation” (p. 3). The author goes on to say that competency refers to the knowledge, skills and attitudes that the teacher should demonstrate in

his/her career. For Rios (2001), competency is a set of high quality knowledge and skills. This definition is similar to that of Braslavsky (1999) which refers to teaching competency as the capacity to work with knowledge and the awareness of the results of this knowledge. For her, competency simultaneously involves knowledge, means for doing things, and values and responsibilities for the results of that which was achieved. On the other hand, Perrenoud (2000) understands competency as the ability to mobilize various cognitive resources in order to confront different situations.

Fernandes (2006) points out that, in the teacher’s work, competency is configured in interrelated dimensions of technique, policy, ethics and aesthetics put into practice. This conveys the existence of two ideas related to the development of teaching competency. One idea is about planning and the other idea is about implementation or execution of professional knowledge (Vogt & Rogall, 2009; Medley, 1978). According to these authors, a competent teacher demonstrates the ability of expression and questioning while interacting with the students; this is the implementation of the skill. A competent teacher knows when a skill is adequate or not; this is the development of the skill. Development is aimed at the objective of teaching, at having knowledge of the discipline, including the anticipation of how the class and learners can be developed. Implementation requires adjustments in the teaching methods and/or

classroom management strategies, as well as diagnosing student understanding and the needs for support or changes. A complete competency demands recognition of when the skill can be utilized and if it is being utilized correctly. This evidences that both dimensions of a competency - planning and implementation - are interconnected; for example, the teaching plan can be modified, but rarely abandoned (Shavelson & Stern, 1981).

Medley (1978) indicates that competency can be *preactive* or *interactive*. Interactive competency is about the performance of the teacher while with the student, and preactive competency is what the teacher does when the students are not present. When the teacher plans, diagnoses the needs of the students, and reflects on the experiences they had, the teacher is demonstrating preactive competencies. When the teacher implements instructional strategies, minimizes and/or deals with disciplinary problems in the class, or adapts classroom practice to the individual differences of students, the teacher is displaying an interactive competency. This means that teaching competency is formed by a knowledge set represented by academic education, classroom practice, and life experiences, all of which contribute to the construction of a unique professional competency that is performed in a specific teaching action and situation.

For Medley (1977), the experiences that teachers have during the education process contribute to changes in the performance of their competencies, intervening in ways that can change the students' learning experiences and consequently modify their learning results. The distinction between planning competency and execution competency mentioned by Medley (1978) and Vogt & Rogalla (2009) deserves attention, since it enables one to better focus the indicators of each competency. With respect to the various definitions of competencies, Brazilian ministerial documents on teacher education consider them to be the "ability to mobilize multiple resources, including theoretical knowledge and professional and personal life experiences, to answer the different demands of work situations" (Brasil, 1999).

Education by competencies, at different levels and in different modalities of teaching, has been the object of numerous curricular reforms, at national

and international levels over the years. In the United States, in the 1960's and 1970's, studies on teaching competency were focused, for the most part, on two types of approaches: on the one hand, based on personal characteristics of a competent professor, and on the other hand, based on the description of the practice performed by the professor (Mager & Beach Jr., 1976). From these studies emerged the curricular models known as Competency Based Teacher Education (CBTE) and Performance Based Teacher Education (PBTE). These models have influenced the education of many American teachers for at least 15 years, decisively impacting teacher education (Cooper, 1989; Oliva & Henson, 1989; Gimeno Sacristán, 1989).

In Brazil, at the end of the 1990's, the curriculum for competencies emerged as a "new" paradigm, promoting the idea that schools need to be adapted to the job market and be in tune with changes in the society. The "teacher model" established in the Benchmarks for Teacher Education – RFP (Brasil, 1999) aimed to establish relations between student and teacher performance, consistent with a teacher education program that is based on competencies. The next sections of the article review government proclamations on teacher education and teacher certification, describe the development of a set of competencies and their indicators, and elaborate the competencies.

Desired Competencies for the Future Teacher of the Pedagogy Program at PUCRS

According to the National Curricular Guidelines for the Undergraduate Program in Pedagogy (Brasil, 2006), teaching certification is required of all teachers in Childhood Education and the initial years of Primary School, in Middle School Programs, in the Normal modality, in Professional Education Programs and in other areas in which pedagogical knowledge is expected. According to these guidelines, teaching is understood as an educational action and a methodical and intentional pedagogical process. The pedagogical process involves planning, doing, reviewing and re-planning. This means that the pedagogical process is an intentional and deliberate process, since it aims to promote significant relations between learning and the knowledge already produced; that is, it enables access to culture and to the knowledge produced by

society over time.

In line with this understanding, Cunha (2006) writes about the educational action as being the “intentional exercise that employs human energies capable of producing a pedagogical effect, going from the project to its realization” (p. 444). Educational actions and pedagogical processes are built in social, productive and ethnic-racial relations which influence principles, concepts and objectives of pedagogy; that is, they develop together with cultural and scientific knowledge, in the socialization and construction of knowledge, and in aesthetic and ethical values naturally connected to the learning processes (Brasil, 2006). Thus the Pedagogy Program should provide, through theoretical-practical studies, experiences in planning, implementation and evaluation of educational activities, and opportunities for investigation and critical reflection. This will also enable the application of philosophical, anthropological, historical, political, linguistic, sociological and other forms of knowledge to the field of education. This implies that the undergraduate (future teacher) of the Pedagogy Program, will work:

with a repertoire of information and skills composed of a plurality of theoretical and practical knowledge, whose consolidation will be proportioned in the exercise of the profession, founded in principles of interdisciplinarity, contextualization, democratization, pertinence and social relevance, ethics and affective and aesthetic sensibility (Brasil, 2006).

In this government directive for the education of a teacher one can note the overlap between planning, implementation and evaluation, which are areas of competencies necessary for the structuring and performance of the teacher’s work. The conceptions presented above, taken from the literature and government directives, guided the research reported in this article.

The Construction of Competencies

The research project, *Competencies, Indicators and Learning Practices in the Pedagogy Program – Teaching Certification at PUCRS* developed in several phases. The process and outcome of the first phase are reported here. Between January 5th and

12th, 2010, the faculty of the Pedagogy Program and the Graduate Program of the College of Education (FACED) at PUCRS formed a working group to construct desired competencies and their indicators for the graduate of the Pedagogy Program.. Meetings were moderated by Professor Cabrera. In the initial meeting, the Pedagogical Project of the Pedagogy Program was discussed in detail in relationship to curriculum theory, the desired profile of the future pedagogue, directions set out in government documents (Brasil, 2006) and teaching regulations of FACED and the university. These materials framed the discussions.

After the initial meeting, the faculty group was divided into three smaller focus groups, in order to analyze, discuss and identify competencies. The results were then presented in the large faculty group, when more discussions, analyses and understandings took place. The outcome of this process was agreement on a set of five competencies (see Table 1). Indicators were built from these using the same process. The last activity of this phase was the identification and elaboration of educational practices that convey the competencies. A discussion of the educational practices is beyond the scope of this article.

According to Veiga & Gondim (2001), the use of focus groups was an appropriate methodology for the process of constructing the competencies, since the focus group can be characterized as a resource in the comprehension and construction of perceptions and the representations of the questions being studied. Morgan (1997) defines the focus group as a research technique that collects information through group interactions. This is what occurred in the elaboration of the competencies, indicators and educational practices. The use of the focus group methodology was a way of exploring a topic, with the aim of delineating and extending it further. The members of the group were knowledgeable in the practical and theoretical interests of the research and so could engage knowingly with significant issues and contemplate pertinent questions.

Pedagogical knowledge allied with specific knowledge of the subject content become necessary competencies especially when related to learning situations, such as: observing students during activities, identifying student learning errors

(Carraher, 2002), and identifying the content to be used and relating it to the respective learning objectives (Perrenoud, 2000). When professors (teachers) observe their students, they perceive whether the students understand the content or not, and can address any difficulties. For example, in Mathematics: If a student makes a mistake in calculations involving multiplication, the professor

may ask the student to show and explain how he/she is solving the calculations. In this way, it is possible to identify the error during the multiplication process. Error and obstacle identification enable the use of practices adapted to overcome them. Therefore, specific knowledge in a subject area of teaching needs to be connected to pedagogical knowledge in that area.

Table 1

Desired Competencies for the Future Teacher of the Pedagogy Program of PUCRS

COMPETENCIES	INDICATORS
1. Knowledge of the area of expertise	1. Permanently training, to improve communicative skills and better apply the theory in practical situations.
2. Didactic-pedagogical action	2.1 Builds theoretical references and works with various languages in order to improve communication to the students; 2.2 Plans, executes and evaluates educational actions; 2.3 Applies different pedagogical practices, in different educational contexts, having teaching and learning processes in mind;
3. Management of educational processes	3.1 Works and coordinates teams, working on different projects related to the student; 3.2 Participates in the elaboration, implementation, and evaluation of the educational processes/projects; 3.3 Develops strategies to solve school conflicts (with students, families, the community) through dialogues with students, families, teachers and the community.
4. Investigative action	4.1 Identifies and understands problem situations regarding: socio-cultural and school reality; classroom management; individual and group differences; learning difficulties; psychosocial difficulties (drugs, bad treatment, negligence, abandonment and others); problems caused in situations in day to day education; 4.2 Reflects on personal and professional life, in relation to himself, to others, in the socioeconomic and cultural context.
5. Exercise of citizenship	5.1 Respects differences, manifesting an attitude of tolerance in relation to the various human characteristics, establishing dialogical relations in groups, in different spaces of coexistence; 5.2 Participates in class groups, clubs, social movements with commitment in the transformation of self, others and society; 5.3 Behave with solidarity.

The competency area of knowledge expertise for a graduate of FACED's Pedagogy Program for teacher certification is aimed at the development of subject knowledge, pedagogic knowledge and knowledge of the content in teaching. The three types of knowledge need to be developed during the initial phase of the teacher education program and be continued during in-service studies after graduation. They form the basis for teacher initiatives and teaching decisions. Acquiring new knowledge, new perspectives, or new ways of interpreting is necessary, since "These discoveries, in turn, are one source of changes in practice" (Shulman, 1998, p.11).

Didactic-pedagogical action. Braslavsky (1999) refers to didactic-pedagogical competency as one of five competencies required of a teacher in the 21st century, in order for the teacher to make the teaching and learning processes productive. For the author, pedagogical-didactic action is aimed at the capacity of knowing, getting to know, selecting, evaluating, utilizing, perfecting, creating and recreating strategies of effective didactic mediation. Didactic-pedagogical action, as a competency, refers to the construction of theoretical references that can form the basis for the teaching action in a way that the teacher can feel more confident about his/her practice, since this construction establishes ties between scientific, empirical or personal theories and practice. In this way, the possibility of choosing or adapting learning activities becomes greater. To foster pedagogical choices and adaptations knowledge of the learning process and an understanding of appropriate theories are necessary.

For Braslavsky (1999) it is vital that teachers apply "selection criteria to a series of known strategies to intentionally intervene, promoting student learning and creating other strategies where those available are insufficient or not pertinent" (p. 29). Theories build bridges to the exercise of practice and the evaluation of the practice. This construction comes linked to knowledge of the processes of adapting and/or restructuring theories for different educational contexts. Thus, the didactic-pedagogical activity is an implementation competency; that which the teacher performs directly with the learner through activities, exercises, examples, demonstrations, metaphors and other pedagogical

practices, organized or reorganized according to the learners' characteristics, prior knowledge, and learning styles, while still being consistent with the socio-cultural and socioeconomic reality. Teachers who develop this implementation competency based on the planning competency, build their own theory and method or techniques pertinent to the learning and teaching process and context.

Investigative Action. Investigation is understood as the verification of something through information from various sources. The investigative action is the manifestation of the act of investigation under a vast spectrum of premises that compose the universe of research in focus. Investigative action is a competency necessary for the graduate of the Pedagogy Program, since it implies the identification and understanding of numerous situations that affect the teaching and learning process. These factors can be directly related to the characteristics of the students and the context in which the teacher works. Based on this identification, the teacher can understand how to better work with the intended subject content, since he/she comes to know when previous ideas become obstacles or precursors in learning (Giordan & Vecchi, 1996). From this identification and understanding, the teacher can develop and apply appropriate strategies in teaching.

By identifying and understanding problem situations regarding: socio-cultural and school reality, class reality, individual and group differences, learning difficulties, and psychosocial difficulties, the teacher can consider these realities in implementing teaching actions. Therefore, this competency aims to identify and understand the realities of the learning situation in order to build new or adapt known strategies in the classroom.

Management of Educational Processes. According to Braslavsky (1999), the teacher needs to be trained to know how to articulate the macro-policy of the whole educational system with micro-policy. In other words, the classroom teaching activity includes participation in the management and organization of educational institutions and systems. According to the National Curricular Guidelines (Brasil, 2006), the participation of the teacher in the educational system involves knowing how to

program, coordinate, execute, accompany and evaluate activities specific to Education, as well as non-school educational projects and activities. It includes scientific-technological knowledge in school and non-school contexts; it involves the development of teamwork, providing dialogue between different areas of knowledge in the educational arena; and it includes critically studying the curricular guidelines and other legal determinations, in order to appropriately gather, apply, and evaluate educational results and direct them to the responsible jurisdictions. Perrenoud (2000) identifies this level of participation of the teacher as one of ten new competencies for teaching.

Exercise of Citizenship. Silva Martins Filho (2004) defines the exercise of citizenship in society and in current times, as being the representation of the defense of fundamental and indispensable values of civilization in order to optimize social coexistence. The exercise of citizenship as a competency required of the teacher includes: respect for human differences, a respect beyond that which is thought of individually and is mainly practiced socially. In other words, by demonstrating the personal commitment and values for human differences in diverse contexts, the teacher is making it possible for students to develop an acceptance of differences, as well as break the barriers of prejudice.

Active participation and dialogue in different educational contexts means that the teacher is capable of assuming a responsible role when necessary. Thus teachers model conscientious negotiation within justice, that is, the clarification of duties and rights. The participation of teachers in the

construction of a society is manifested mainly, in their being and doing as “teacher”, not isolated in specific moments, but in the totality of their practice. In acting correctly, with justice, with solidarity, with understanding of others, and in practicing what they preach — since doing produces more of an effect than speaking — the teacher is exercising and modeling citizenship.

Final Considerations

The set of competencies and their indicators (Table 1) developed in this project try to gather the capacities necessary for certification of the teacher graduate of the Pedagogy Program of FAGED, PUCRS. Three ingredients necessary for teaching are perceived in all of the competencies: knowledge, know-how (skill) and knowing how to be (disposition). Understanding teaching competency goes beyond knowledge and skills to include: attitudes, behaviors and values (Felicetti & Giraffa, 2008). The teacher can transform knowledge and skills to better develop attitudes and values for a particular educational context. This refers to the forms of expression, representation, and exposition that foster the utilization of a variety of strategies to engage with the content of the discipline so that those who do not know can come to know; and those who do not understand can do so. This requires that the teacher be qualified in Pedagogy and also in different disciplines of study. The set of competencies and their indicators can contribute to a teacher education program for the better professional development of undergraduates and alumni of the Pedagogy Program at PUCRS, and consequently improve the quality of teaching in the schools of Brazil.

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Note: This report is one aspect of an ongoing larger research project, The Political Pedagogical Project, which is supported by the Fulbright Foundation.

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