TECHNICAL AND ACADEMIC COMPETENCIES OF THE UNIVERSITY TEACHER

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To transform the community into one that fosters growth and prosperity, the people must perceive correctly their own needs as human beings.

- Konosuke Matsushita

The greatest victory is to conquer yourself.

... Pedro Calderón de la Barca
“All higher education systems and institutions should give a high priority to ensuring the quality of provision and outcomes... promoting permanent learning and the development of the appropriate competencies to contribute to the cultural, social, and economic development of society”.

“...curricula need to be recast so as to go beyond simple cognitive mastery of disciplines and include the acquisition of skills, competencies and abilities for communication, creative and critical analysis, independent thinking and team work in multicultural contexts.”

World Conference on Higher Education (UNESCO, 1998)
Current Academic programs emphasize the development of competencies, “the generation of fully developed individuals, who are creative-generative, with the skills to take on the constant globalization challenges, and to participate in a creative and innovative way in solving social and productive problems” (Parra, 2006, p. 3).
What is the impact on the professional development of college students that the instructor possess the technical pedagogical competencies necessary to create educational experiences which promote significant and life-long learning?
Which technical and academic competencies, established as a product of academic research, that higher education instructors should possess in order to develop the skills, knowledge, and abilities their students need to engage in competency-based learning?
In higher education, professional development (training) of teachers involves the search for new studies relative to their field of expertise, both from the technical and the academic perspectives; therefore, any effort done to investigate the fundamental aspects of academic practice are justified if done with a scientific purpose.
RESEARCH SITES

- Instituto de Estudios Superiores de México (IDESUM), en Lázaro Cárdenas, Michoacán, México
- Escuela de Medicina de la Universidad Latinoamericana (ULA), Campus Ciencias de la Salud, Cuernavaca, Morelos, México;
- Institución Universitaria Escuela Superior de Mercadotecnia (ESUMER), Medellín, Colombia;
- Corporación Universitaria Minuto de Dios, Bogotá, Colombia
THEORETICAL FOUNDATION


... Emphasizes what happens in the classroom when students learn;

... Centered on the nature of such learning;

... Establishes the conditions required for learning to happen;

... Focuses on its results and consequently, its evaluation.
THEORETICAL FOUNDATION

◊ Theory of Meaningful Learning,

... Considers that learning is built in an evolutionary way.

... Proposes the systematic principles to organize instruction,

... Acknowledges the need to perform a conceptual analysis of content.

... Contributes to the development of competencies focusing the instruction on the student.
Constructivist Theory

The learning process conceived under Ausubel’s (1976) constructivist perspective refers to the process by which the learner processes the information in a systematic and organized way so that it constructs knowledge, instead of just engaging in rote memorization (Díaz, 1998).
The characteristics of learning competencies are directly related to the conditions that must be present for acquired knowledge to be the most significant and functional possible.
METHODOLOGY

The starting point was a study by Hammond (2000, cited by Hernández, Fernández & Baptista, 2010), which clearly establishes the personal and performance variables of academic professionals. These variables can be used to determine policies for hiring and professional development of teachers, with the purpose of increasing the development of professional competencies in students (quantitative).
STUDY SAMPLE

The sample was made up by ten teachers from each of the participating institutions; in total 40 teachers were evaluated.

In the evaluation participated 400 students, 100 from each institution, 10 to evaluate each teacher.

The research was conducted by 4 evaluators, observers.
A preliminary diagnostic study was conducted to determine the teachers’ technical, technological, and academic competency level.

The evaluation was done in three phases:

... Self-evaluation

... Evaluation by the students

... Observation and evaluation by the researchers
SELF EVALUATION

♫ The average score was 86.79%
♫ The instrument self-evaluates the following:
  ... The creation of learning environments,
  ... The development of instructional strategies,
  ... The coordination of group work, and
  ... The assessment of the students’ learning.
SELF EVALUATION

суж Technological competence

... Average score was 52.38%; the majority scored themselves at 31.57%.

... This category evaluates the competencies and knowledge about the use of available instructional technology, demonstrating its usefulness and application in the teaching–learning process.

суж Basic knowledge of information technology; managing virtual platforms; design and development of instructional materials with the use of technology.
EVALUATION BY STUDENTS

With this instrument the students evaluated how the teacher...

... creates learning environments,

... generates academic activities,

... stimulates creativity and participation of students, and

... others characteristics.
EVALUATION BY STUDENTS

- **Subject Matter Knowledge**, 19 items, for a total of 190 points;
- **Learning Environments**, 12 items, for a total of 120 points;
- **Teaching Relationship**, 9 items, for a total of 90 points;
- **Teaching Communication**, 21 items, for a total of 210 points, and
- **Learning Evaluation**, 21 items, for a total of 210 points.

A total of 82 items for a total possible score of 820 points for this instrument.
CLASS OBSERVATION

Conducted according to the evaluation checklist applied to the observation of the teaching performance.

The teachers earned a score of 92.75% with respect to the standards established to measure their academic competencies...

... 14 of the 40 teachers evaluated scored below the average.
# RESULTS

<table>
<thead>
<tr>
<th>SELF-EVALUATION</th>
<th>STUDENT EVALUATIONS</th>
<th>OBSERVATION</th>
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RESULTS

According to the standards set in the research instruments, the following are identified as areas of opportunity:

... Technological Competencies
... Learning evaluation
... Teaching communication
... Subject Matter Knowledge

The deficiency in the knowledge of technology aspects is acknowledged by the teachers, the rest of the issues are identified by the students.
RESULTS

.getActiveText()
THE COMPETENCIES OF THE COLLEGE TEACHER

What are they? Which are they?
Why are they important and necessary?
How do they help the teacher?
DEFINITION OF COMPETENCY

According to Perrenoud (2001), “competency is the aptitude to address effectively a family of similar situations, consciously utilizing in a quick, relevant, and creative way multiple cognitive resources: know-how, abilities, microcompetencies, information, values, attitudes, and schemas of perception, evaluation, and reasoning.”
Zabala (2007), proposes the following:

“The capacity or ability of performing tasks, or facing diverse situations effectively in a specific context. For this, it is necessary to mobilize attitudes, abilities and knowledge simultaneously and in a complementary way.”
DEFINITION OF COMPETENCY

Transferring the definition to the academic environment, we propose that: “Competency identifies the skills that any person would need to solve the problems that she/he will face in her/his lifetime.

Therefore, competency will consist in the effective intervention on all different environments of life by means of the actions in which they simultaneously mobilize, in an interconnected way, attitude, procedural and conceptual components.”
FACTORS FOR DEVELOPMENT OF COMPETENCIES

❖ The self *(attitudes)*
❖ The thinking *(intellectual aptitudes)*
❖ The making *(procedural aptitudes)*
❖ The knowing *(cognitive aptitudes)*
## COMPONENTS OF COMPETENCIES

1. **VALUES**
2. **PERSONAL ATTRIBUTES**
3. **ABILITIES**
4. **KNOWLEDGE**
5. **ATTITUDES**
a) *Interpersonal skills*, learning to work as part of a team, the capacity to learn from the skills and abilities of other team members.
BASIC COMPETENCIES OF THE TEACHER

b) Communication, the process of exchanging and sharing information with others (students and other teachers).
BASIC COMPETENCIES OF THE TEACHER

c) Technical-pedagogical, parting from the academic perspective of memorization, application or restitution with the purpose of “filling up minds”, towards the adoption of a vision focused on the development of “competent minds” by means of the academic principle of “learning by doing.”
QUESTIONS FOR THE STUDENTS

Are you ready for the business world?

What do you offer a company, and how do you differentiate yourself from other candidates?

How is your capacity for team development?

How are your leadership skills?

Do you know how to negotiate, avoid, and/or manage change?

What is organizational culture and how does it affect your work?

You must develop your own road map that will allow you to move inside the company’s territory.
HOW DOES THE TEACHER RESPOND?

Promoting activities for:

 attraverso Decision making

 attraverso Problem solving through problems-based learning

 attraverso Building proposals and ideas through project-based learning
COMPETENCIES OF STUDENTS

Competencies must cover the following dimensions:

... social
... interpersonal
... personal
... professional

Zabala (2007)
COMPETENCIES OF STUDENTS

In the social dimension, students must be competent to participate actively in the transformation of society, meaning,

... understanding it

... valuing it

... getting involved in a critical and responsible way

... with the purpose to improve fairness, justice, solidarity, and democracy.
COMPETENCIES OF STUDENTS

In the **interpersonal** dimension, students must become competent to

... relate

... communicate

... coexist positively with others

... cooperate and participate in all human activities with understanding, tolerance, and solidarity
COMPETENCIES OF STUDENTS

In the **personal** dimension, students must become competent to engage in a responsible and critical way:

... independence

... cooperation

... creativity

... freedom

... through knowledge and understanding of themselves, society, and the environment in which they live
COMPETENCIES OF STUDENTS

♀ In the professional dimension, students must become competent to:

... execute a professional task according to her/his abilities,

... utilizing the knowledge and specific skills of her/his profession,

... in a responsible, flexible, and rigorous way, so they can satisfy their motivation and expectations of professional and personal development.
Basic Competencies

Generic Competencies

Concrete Conditions of Professional Practice

Specific Conditions of Execution

Specific Competencies

Cognitive Technical Methodological

Integral Professional Competencies
It’s not optional. The Tuning methodology bases transparency in the standardization of instruments such as academic guides.
Active methods for the development of competencies

- Cooperative learning
- Case method
- Problem-based Learning
- Project-based Learning
- Guided self-instruction
Methods for assessing the learning of competencies

- Self-evaluation
- Peer evaluation
- Co-evaluation
- Learning Results
- Performing Activities
- Performance Tests
- Observation Scales (checklists)
### THE NEW ROLE OF THE TEACHER

The teacher’s role focuses on:

- creating learning environments
- designing learning experiences
- stimulating reasoning and critical thinking
- facilitating opportunities for students to use their reasoning skills
- fostering the development of independence as a personal competency
THE NEW ROLE OF THE STUDENT

 Ability to work in a team, the capacity to restructure mental models, to use electronic resources and TIC.

 Ability to explore, detect, select and use appropriate information and evaluate its impact.

 Ability to learn from experience and mistakes, the development of creativity and innovation.

 The student must participate in class and attend class prepared to analyze, contribute and be constantly evaluated.

 The students are key players in their own learning; therefore, they must acquire competencies for the management of their learning experiences.
RECOMMENDATIONS

As seen from an integral point of view, inter-institutional policies must be developed to support the teachers’ professional development in the use of information technology, with the purpose of helping them enhance their academic performance (NETP, 2010).
RECOMENDATIONS

The findings of this study can be extrapolated to colleges and universities all over Latin America. That is, the need to have academic faculty that possesses key academic and technical competencies is being felt at all universities that want to stay at the forefront of student development.

Therefore, it is recommended that similar studies should be made on other contexts of higher education.
REFERENCES


REFERENCES (cont’d)


THANK YOU

GRACIAS POR SU ATENCIÓN