# DESIGNING THE ASSESSMENT FOR A COMPETENCE – BASED CURRICULUM. A CONCEPTUAL FRAMEWORK

### DANIEL ANDRONACHE1

**ABSTRACT.** The article presents a synthesis and an analysis of the literature aiming to create conceptual framework for the assessment of the competence based-curriculum. Contemporary orientations in education promote the necessity and the importance of the competences development through an adequate curriculum design. In this context the curriculum assessment becomes extremely important because its role is to provide information about the effectiveness and functionality of the education process and of the education system, as a whole, in order to improve it. In this study we aim to define and describe the processuality implied by the assessment of a competence-based curriculum, analysing the levels and the stages that are involved.

**Keywords:** competence, curriculum design, assessment

**ZUSAMMENFASUNG.** Der Artikel stellt eine Zusammenfassung und eine Literaturanalyse vor und zielt einen begrifflichen Rahmen zu schaffen, der relevant für die Beurteilung des Kompetenzen-zentriet Curriculums ist. Die zeitgenössische Leitlinien in Bildung fördern die Notwendigkeit und die Bedeutung der Ausbildung den Kompetenzen bei Schülern durch eine geeignete Gestaltung des Curriculums. In diesem Kontext wird die curriculare Beurteilung extrem wichtig, weil ihre Rolle Informationen über die Effektivität und Funktionalität des Bildungsprozesses und des Bildungssystems als Ganzes im Hinblick auf seiner Verbesserung anzubieten ist. In dieser Studie haben wir vor die Prozessualität der Beurteilung des Kompetenzen-zentriet Curriculums zu definieren und zu konturieren. Wir analysieren auch die Ebenen und die Stufen, die dieses Curriculum betrifft.

**Schlüsselwörter:** Kompetenz, Curriculumgestaltung, Bewertung

<sup>&</sup>lt;sup>1</sup> Department of Educational Sciences, Faculty of Psychology and Educational Sciences, Babeş-Bolyai University, Cluj-Napoca, Romania. E-mail: daniel.andronache@ubbcluj.ro

## 1. Introduction. Some consideration about competence and competence-based curriculum

In the specialized literature there are a variety of definitions and approaches of the concept of competence, each of them trying to emphasize its importance and its necessity for the professional and personal development of the students.

According to Webster's Online Dictionary, the concept of competence was firstly used in English literature before 1590. But according to Barrett & Depinet (1991), the human resources work of David McClelland, since 1973, "Testing for Competence Rather than for Intelligence" can be considered the reference point in the rise of this concept. In this paper the author argues that assessing the intelligence level and the personality assessment can not be considered sufficient predictors of the performance, so the competence assessment can be a good and a reliable alternative. So it seems that the concept of competence in education emerged from the first acceptances related to human resource field as a possible response to satisfy the requirements of socioeconomic environment. Therefore, although the concept of competence is increasingly used nowadays in the literature, and also in educational practice, there is not an unanimously accepted perspective to define it.

Just because we can not appreciate that a perspective or another is wrong or incomplete, Stoof et al (2002), considered that the absolutization of a definition belongs of a objectivist paradigm, meaning that the objectivists are those who believe that in all fields there is an irrefutable truth, an absolutely truth. So, Stoof et al (2002) claims that a consensus and a single definition of the competence concept is impossible. Therefore, the optimal approach to defining the concept of competence is *the constructivist approach*. From the perspective of this approach the definition itself is not important but the issue is whether that definition has proved adequate and reliable in the context in which it was used. Therefore, considering Stoof's approach and the most convergent approaches of the concept of competence (Parry, 1996; Mirabile, 1997; Jeris & Johnson, 2004; Dooley et al., 2004; Bocos, 2008; Potolea & Toma, 2010, Andronache, 2014), in the educational context it can be considered adequate and reliable the approach that defines the competence as a set of knowledge, skills and attitudes that interact in a systemic way and ensures constant and efficient performance of the various tasks required by the characteristics of the educational process (Andronache, 2014).

Starting from the concept of competence, current educational theory and practice began to enforce more strongly the deigning of a curriculum that is focused on competences development. Seen as a whole, a competence-based

curriculum aims to train the students through a coherent and functional integration of knowledge, skills and attitudes, so its main purpose is that students do not passively acquire information. Therefore, the competence-based curriculum promotes the active learning in order that the students develop their motivation for learning and meet social demands by developing specific competences, not only professional competences but also transversal competences such as communication, problem solving, critical and creative thinking etc. (Teichler, 1998; Bennet, Dunne & Caree, 1999; Korthagen, 2004).

By making a complex synthesis of the specialized literature, Kouwenhoven (2010), identifies the main characteristics of a competence-based curriculum: it is geared towards professional practice, promotes student-centred learning, has in its centre the learning process, has a constructivist approach, promotes the creation of learning situations focused on competences development, is implicitly focused on developing transversal competences. Other synthesis emphasize theories apparently different but basically converging, which together contribute substantially to the scientific rationale of the competence-based curriculum. In this respect we refer to the learning outcomes-based approaches, standardsbased approaches and student-centred learning approaches (Andronache, 2014). The obvious convergence of all these curricular approaches is their firm opposition to the content-based curriculum and therefore to the curricular models in which the student is passive, and only accumulate information. The analysis of the literature may lead to the conclusion that the competence-based curriculum is conducted by multiple theories and researches. The point of maximum convergence of these is given by the need to integrate knowledge, skills and attitudes in a coherent and functional way. However, it can be concluded that the design of the competence-based curriculum is a dynamic one, involving different stages and being organized in a systemic manner (Andronache, 2015).

### 2. The concept of competence-based curriculum assessment

We can not speak about a coherent design of the competence-based curriculum in the absence of a coherent vision on how to measure the effectiveness of it. Therefore, in general, the assessment of formal education is approached as a pedagogical demarche that aims to provide information about the effectiveness and functionality of the process and of the education system as a whole with the aim of improving it.

As a pedagogical practice the assessment was necessary after the creation of the first institutionalized forms of education, but its theoretical

foundation and argumentation was made for the first time in 1949 by Ralph Tyler, in the work "Basic Principles of Curriculum and Instruction". As indicated by Nevo (2006), Tyler gave special attention to the assessment of the students' acquisitions, as a result of the teaching-learning process, then integrating it as a fundamental element in the process of curriculum design. After the 1970 assessment was widened, mainly in USA, from the classroom to the curriculum, to the educational programs and then to the system.

In general, most contemporary theories approach the assessment as an integrated part of the educational process, which aims to identify the effectiveness, the relevance, the importance, and the success of the educational programs, by reference to a predetermined system of indicators. So, regarding the definition of the competence-based curriculum assessment, we consider that this is a complex process that aims to identify, at different levels and from multiple sources, information about the curriculum efficiency and about the extent to which established competences were developed, but also to analyze and to use this information primarily for the purpose of curricular improvement and adjustment.

### 3. Processuality of the competence-based curriculum assessment. Stages and levels

Because, as we mentioned, curriculum assessment is a dynamic and complex process, Nevo (2006), identifies five major stages of the assessment process of a curricular program. These stages are necessary to provide a comprehensive view on the effectiveness of a competence-based curriculum:

- The understanding of the assessment issues;
- The planning of the assessment;
- The data collection:
- The data analyze:
- The data reporting.

**The understanding of the assessment issues** is the stage of *reflection on the assessment process*, establishing its purpose and *establishing the criteria* for obtaining information about the curricular process. This is basically the foundation stage of the assessment in order to reduce the risk for an evaluation without a clear purpose.

**The planning of the assessment** involves *formulating specific objectives of the assessment,* determined after the analysis developed in the first stage and on the basis of the criteria proposed. The assessment planning also involves

the setting of its *duration*, identification of *the methods and procedures*, identification of *data collection tools* as well as the identification of the *samples of subjects* (makers in curriculum design, teachers, students, parents, socioeconomic partners, civil society).

The data collection stage is the stage where *methods* and assessment tools are applied to the selected samples from various levels of the education system (macro-, medium- and micro level). This stage is an important one because the accuracy of the data collection determine the quality assessment made; therefore a non-rigorous collection and analysis causes erroneous reporting data which can in this way lead to an inconsistent decisions with the educational reality.

The data analyze, is made after their collection and *involves statistical* and qualitative analysis. Data analysis will be done according to the criteria established in the first stage of curricular assessment, having the role to provide relevant and accurate information about the effectiveness of the curriculum and of the students' competence level development. Information obtained at this stage will be sources for the curricular improvement and for the subsequent decisions for the curricular review.

**The data reporting** represents the final stage of the curricular assessment and involves *informing educational policy makers, and also teachers, students, parents or society, of the results of the assessment process*. In this stage solutions are also proposed and recommendations are made regarding improving aspects identified as dysfunctional after analysing of data.

So, all those stages described above, are aimed to ensuring both summative and formative assessments. Thus, the assessment of a competence-based curriculum can fulfil 3 main functions: collecting information about the curriculum, curriculum validation and improvement (Nevo, 2006).

Another curricular assessment model is developed by Kirkpatrick (1994), apud. Wolf, et al. (2006). The author suggests four main levels:

- The reaction level:
- The learning level;
- The behaviour level:
- The results level.

The reaction level is the level of obtaining feedback from students regarding the learning experiences in which they were involved, on the level to which they appreciated the educational process as being useful and relevant. So, the reaction level requires a curricular assessment at micro-pedagogic level, respecting the principle of student-centred learning, considering his opinions as relevant to improving curriculum.

The learning level relates to assessment of students and their level of competences development. The results obtained at this level will be, also in this case, sources for improving the curriculum and the educational process. Therefore, the results obtained at this level will be sources of reflection for the teachers.

**The behaviour level** is the level of identification in practical contexts of the efficiency of the competences development. Therefore, additional to the learning level and interacting with it, the behaviour level aimed to identify the quality of transferring knowledge, skills and attitudes in practical situations.

The results level is the step of curriculum assessment with a high level of generalization, compared with the other three levels. Thus, this level aims to identify the overall performance and students competence development after several years of study. So the results describe an overall average of the success of the students after tests conducted at national or/ and regional level, practically presenting a summary analysis of the facts.

Summarizing the considerations regarding the levels and the stages of the curriculum assessment, we propose the figure below to sum up the philosophy of the assessment of a competence-based curriculum:

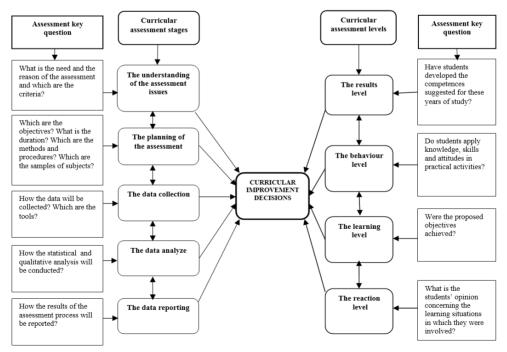


Figure 1. Levels and stages of the curriculum assessment

### **Conclusions**

In conclusion, analysing the characteristics of the four levels and the characteristics of the five stages of curriculum assessment, it can be concluded that they are correlated. Every level and stage helps to assess a particular segment of the curricular process, but all seen overall provides information about the efficiency and functionality of the curriculum, in a systemic approach. So, the competence-based curriculum assessment is very important because we can not speak about a coherent design of the competence-based curriculum in the absence of a coherent vision on how to measure the effectiveness of it.

#### REFERENCES

- Andronache, D. (2014). *Proiectarea curriculumului centrat pe competențe. Perspective analitice și investigative.* București: Editura Universității din București.
- Andronache, D., Bocoş, M., Neculau, B. (2015). A systemic-interactionist model to design a competency-based curriculum. *Procedia. Social and Behavioral Sciences.* Philadelphia: Elsevier, 717 721.
- Barrett, G.V., & Depinet, R.L. (1991). A reconsideration of testing for competence rather than for intelligence. *American Psychologist*, 46, 1012-1024.
- Bennet, N., Dunne, E., Caree, C. (1999). Patterns of core and generic skill provision in higher educatin. *Higher education* 37 (1), 18-27.
- Bocoș, M. (2008). *Teoria curriculumului. Elemente conceptuale și metodologice.* Cluj-Napoca: Editura Casa Cărții de Știință.
- Dooley, K.E. et al. (2004). Behaviourally anchored competencies: evaluation tool for training via distance. *Human Resource Development International*, 7 (3), 315-332.
- Jeris, L.; Johnson, K. (2004). Speaking of competence: toward a cross-translation for human resource development (HRD) and continuing professional education (CPE). *Academy of Human Resource Development Annual Conference: proceedings*, 2, 1103-1110.
- Korthagen, F. (2004). In search of the essence of a good teacher: Towards more holistic approch in teacher education. *Teaching and teacher education*, 20 (1), 42-56.
- Kouwenhoven, W. (2010). Competence-based curriculum development in higher education: some African experiences. In Cantrell, M., Kool, M., W. Kouwenhoven (Eds.) (2010). *Access & Expansion: Challenges for Higher Education Improvement in Developing Countries*. Amsterdam: VU University Press, 125-146.
- Mirabile, R.J. (1997). Everything you wanted to know about competency modeling. *Training and Development*, 28, 73-77.

#### DANIEL ANDRONACHE

- Nevo, D. (2006). Evaluation in education. In Ian F. Shaw; Jennifer C.Greene; Melvin M. Mark (2006). *The SAGE, Handbook of Evaluation. Policies, Programs and Practices*. London: SAGE Publications, 441-446.
- Parry, S.B. (1996). The quest for competences: Competency studies can help you make HR decision, but the results are only as good as the study. *Training*, 33, 48-56.
- Potolea, D, Toma, S. (2010). *Competența: concept și implicații pentru programele de formare a adulților*, a III-a Conferință națională de educație a adulților, Timișoara.
- Stoof, A., Martens, R.L., Van Merriënboer, J.J.G., and Bastiaens, T.J. (2002). The boundary approach of competence: a constructivist aid for understanding and using the concept of competence. *Human Resource Development Review*, 1, 345–36.
- Teichler, U. (1998), *Thematic debate: the requirments of the world of work.* Paper predented at the UNESCO World Conference on Higher Education in the 21st century: Vision and Action.
- Tyler, R. (1949). *Basic principles of curriculum and instruction.* Chicago: The University of Chicago Press.
- Wolf, P., Hill, A., Evers, F.A (2006). *Handbook for Curriculum Assessment*. Guelph: University of Guelph Publications.
- Webster's Online Dictionary: http://www.webster-dictionary.org/definition/Competence