

# QUALITY IN MATHEMATICS TEACHERS TRAINING SYLLABUSES

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The purpose of this study is to design instruments to measure the quality of prospective mathematics teachers training plans, within the Spanish context. We conceive the quality of a syllabus as a multidimensional concept that can be articulated by means of *dimensions* and *competences*.

We consider three dimensions for evaluating the quality of a teacher training syllabus: its *relevance*, as the measure of the degree in which the syllabus suits the requirements and expectations of the participants' social setting; its *effectiveness*, as the measurement of the degree in which the syllabus achieves its aims; and its *efficiency*, measurement of the expenditure of time and resources required for accomplishing the tasks involved in the program syllabus.

Each one of these dimensions is organized by means of factors. Each factor represents an area of interest related to the training aims. We use the notion of *competence*, developed in the Tuning Project (González & Wagenaar, 2003) to establish three groups of factors: *Generic Competences*, which analyses the generic training for any university graduate; *Professional Knowledge*, which evaluates the general foundations that constitute the theoretical referents for the mathematics teacher; and *Professional Competences*, which measures the ability of the prospective teacher to perform practical tasks.

By crossing the three dimensions and the three factors, we obtain a 3x3 table. For each cell of this table, we have elaborated instruments for collecting, codifying, and analysing information, which produce *quality indicators*. For example, an indicator for the cell “relevance/generic competences” is the degree of presence of the Tuning generic competences in the specific aims of the training syllabus.

In order to develop and validate this model of quality evaluation, we take three prospective mathematics teachers syllabuses as referents. These syllabuses are currently been implemented in three Spanish Universities: Almería, Cantabria y Granada.

## References

González, J. & Wagenaar, R. (2003). *Tuning Educational Structures in Europe*. Informe final. Fase Uno. Universidades de Deusto y Groningen.