

Building Rubrics for Evaluating the Competence of Preparing for Lesson Plans of Pedagogical Student

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Abstract This article explores the issue of evaluation in today's education, with particular emphasis on assessing learner competencies. The rubric building steps will be presented to assess the pedagogical students' teaching capacity with five steps: (1) Define the criteria for the preparation of lesson planning; (2) Define indicator of criteria; (3) Describe the level of the indicators; (4) assign points to indicator levels; (5) Find evidence for the criteria; (6) Perform evaluation. From that process, the paper described planning capacity with four criteria: Understanding students, Understanding curriculum, Understanding facilities, teaching aids, Understand the socio-economic and natural characteristics of locality. The criterion of Understanding students includes 3 indicators: Understanding the knowledge base of students' subjects, Determine interest in learning Chemistry and Biology, Identifying learning styles of Chemistry and Biology. Understanding curriculum includes 2 indicators: Define goals, orientation methods, means and forms, teaching content of lessons during pedagogy practice, Identify teaching plan of the lessons during pedagogy practice. The criterion of Understanding facilities, teaching aids includes 2 indicators: Understanding facilities - teaching aids, Develop plans to use, purchase or make the lacking teaching aids. Understand the socio-economic and natural characteristics of locality includes 2 indicators: Only the socio-economic and natural characteristics of locality related to the content of teaching Biology, Integrate the socio-economic and natural characteristics of locality in teaching Chemistry and Biology. Each indicator is described in three levels: Level 1: Fail; level 2: standard and level 3: Good. Criteria are considered as a useful tool for assessing the teaching capacity of pedagogical students before they attend school teaching.

Keywords: *competence assessment, teaching competence, scoring rubrics, lesson plans, pedagogical student, evaluation*

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1. Introduction

Innovative education moves from the target approach to the competency approach, enhancing the learner's ability to perform tasks. This trend requires the renewal of the objectives, contents, methods, forms of teaching organization and evaluation of teaching results. Accurately evaluating the capacity of learners regularly, continuously will help teachers and learners see the shortcomings and their causes which are the basis for the teachers and learners to adjust the teaching - learning process to achieve higher efficiency. INTASC Teacher Rating Council of CCSSO has proposed eight criteria for evaluating teacher competencies, including some of the criteria related to the preparation of instructional plans such as: in subject matter; Knowledge of the student's cognitive ability to develop appropriate teaching methods; knowledge of the different learning styles of students to develop teaching methods for each student. Evaluation issues in higher education are of interest in many countries. Among the research-related studies in higher education published are

the outstanding studies of some of the following authors Roth, Robert A; Mahoney, Peggy (1975) [1]; Erwin, T. Dary (1991) [2]; Boston, Carol (2002) [3], David D. Wiliam, Scott L Howell, Mary Hricko (2006) [4]; Gronlund N. E (1985) [5]; Hopkin K.D., Stanley J.C (1981) [6]; Howard B.L. (1986) [7]; Michael K. Rusell, Peter W. Airasian (2012) [8], Niko A.J., & Brookhart S.M (2007) [9]; Ostelind S.J. (1992) [10]; Ostelind S.J. (2002) [11]; Rick Stiggins (2008) [12].

The authors such as Richard B. Fletcher, Luanna H. Meyer, Helen Anderson, Patricia Johnston, Malcolm Rees (2011) [13]; Carol Evans (2013) [21] study the role and purpose of assessment in higher education, and evaluate results for a variety of purposes such as providing information about student learning, of the students, the quality of the teaching, the training program.

Research on the criteria for assessing teachers' teaching competencies is given by several authors such as Alnoor, A.G.; Yuanxiang, Guo; Abudhuim, F.S (2007) [14]; Maryam Ilanlou, Maryam Zand (2011) [8]. These studies show that the teaching capacity of teachers determines the quality of their teaching. For pedagogical students, teaching capacity is the capacity that needs to be assessed

well before they take on high school. In order to have good teaching capacity, preparation for lesson planning is important but has been largely overlooked. Capacity to prepare lesson plans includes student exploration, course curriculum, learning material facilities - teaching aids and socio-economic conditions and the natural features of local. These criteria will help a lot in planning and organizing lessons in class.

A rubric is a set of criteria that can be expressed into measurable, and observable indicators, behaviors to indicate the level of achievement of the learning objective and to evaluate or inform about the product, performance of the learners. Criteria evaluation guides include one or more aspects, often referred to as criteria. Rating scales are called competence levels and definitions are also known as descriptive information [17]. Rubric evaluations have the following advantages: (1) During the pre-assessment phase, the rubric is used to clarify the expectations of the instructor, indicating the grading method for the learner. As a result, learners can self-assess and grade their product before the instructor evaluates the product. (2) During the assessment period, the rubric helps the evaluator focus on pre-established criteria and objectively assess learner performance. (3) During the post-evaluation period, the learner is provided with scoring information, accompanied by a clear explanation of the result. Students will be aware of the strengths and shortcomings to overcome [16]. Based on the criteria list and criteria description information to determine the number of levels used to evaluate criteria (3 levels, 4 levels or 5 levels). There are two types of levels commonly used in rubrics: Even numbers (two or four levels), if we need to distinguish between two extremes: pass and failure; In odd numbers (3 or 5 levels), if you need to determine an average level of competence. Studies on rubric evaluation have included some authors such as Moskal, B. M. (2000) [17]; Nitko, A. J. (2001) [16]; Harries Isacke (2011) [18]; Pauline Dickinson, Jeffery Adams [19]; Ángel Alsina and at al [20] ... All of these studies show the advantages of rubric for capacity assessment. In addition, what do these studies also describe the rubric? How to create it? How to use it?

The advantages of rubric are well suited for assessing general competencies and assessing the competency of planning capability of pedagogical students before they graduate and undertake post-graduate teaching.

2. The Rubric Construction Steps

Rubric is a set of criteria that can be visualized (measurable indicators, or observable behavioral behaviors) that reflect the level of achievement of learning objectives and are used to evaluate or inform the product or performance of a learner. Rubric reviews consist of one or more aspects, commonly known as criteria while rating scales are called level and capacity definition is also known as descriptive information. To build a rubric it is necessary to go through the following steps:

Step 1: Determine the criteria for the preparation of the lesson planning.

Each capacity is expressed by criteria, so the criteria must reflect the core content of the required capacity and must be described in accordance with the logic of pedagogy internship operations at the school, for the students to improve their skills to become future teachers. Therefore, all competency criteria are required to be evaluated. Describing competencies must be in accordance with the activity logic to guide students to follow.

Step 2: Define indicators of criteria

Criteria are described by indicators. Indicators are the collection of signs of a criterion or, in other words, indicators constitute actions that constitute an action in the structure of a teacher's teaching activity. To identify indicators, the information on the criteria should be used, the number of indicators may differ depending on the criteria.

Step 3: Describe the level of the indicator

Level 1: The lowest level (failing) corresponding to the level not assessed by the High School Teacher Career Standard

Level 2: Average (standard) corresponding to level 1 of the High School Teacher Career Standards

Level 3: The highest level (good), corresponding to level 2 (good) of the high school teachers

Levels 1, 2 and 3 have mutual relationships:

- Level 1 = information describing the lowest level
- Level 2 = Level 1 + $\Delta 1$
- Level 3 = Level 2 + $\Delta 2$

Whereas $\Delta 1$, $\Delta 2$ is the description of the indicators at a higher level of quality or quantity.

3. Describing the Competences

Criterion 1. Understanding students				Evaluation proofs Evidence of evaluation
Description: Request of the criteria is that teachers must: Learn the knowledge base, identify interest and learning styles of the subject.				
Indicators	Description of indicators			
	Level 3 (5points)	Level 2 (3 points)	Level 1 (1points)	
1.1 Understanding the knowledge base of students' subjects	<ul style="list-style-type: none"> - Determine background knowledge of students as the basis for learning new knowledge - Determine test methods to classify the knowledge base to classify the level of students - Classify exactly the level of students' background knowledge 	<ul style="list-style-type: none"> - Determine background knowledge of students as the basis for learning new knowledge - Determine test methods to classify the knowledge base to classify the level of students - Classify not exactly the level of students' background knowledge 	<ul style="list-style-type: none"> - Cannot classify exactly the level of students' background knowledge 	<ul style="list-style-type: none"> - Classification based on student background knowledge - Test of background knowledge of the subjects

1.2. Determine interest in learning Biology	<ul style="list-style-type: none"> - Determine the expression of students' interest - Develop a questionnaire to complete the expression of interest for the students' coursework - Collect and analyze survey results - Determine the cause of the attitude and the attitude to the subjects 	<ul style="list-style-type: none"> - Determine the expression of students' interest - Develop a questionnaire but not really full of expressions of interest for the students' coursework - Collect and analyze not really full of survey results - Cannot determine exactly the cause attitude and the attitude to subjects 	<ul style="list-style-type: none"> - Determine incorrectly the cause attitude and the attitude to subjects 	<ul style="list-style-type: none"> - The list of students' attitudes toward the subject and causes - Questionnaire for students' interested in the subjects
1.3. Identifying learning styles of Biology	<ul style="list-style-type: none"> - Identify the types of learning styles of students - Develop a questionnaire with complete stylistic expressions of students studying the subjects - Collect and analyze survey results - Identify the learning style of the subjects of students and explain 	<ul style="list-style-type: none"> - Identify the types of learning styles of students - Develop a questionnaire but not really full of stylistic expressions of students in studying the subjects - Collect and analyze not really full of survey results - Determine not really exactly learning styles of students on the subjects and explain 	<ul style="list-style-type: none"> Identify incorrectly the learning style of the subjects of students and explain 	<ul style="list-style-type: none"> - The list of students with different learning styles - Questionnaire of learning styles of students in learning the subjects

Criterion2. Understanding curriculum

Description: Request of criteria that teachers must: Define the objectives, orientations, methods, means, form, content, teaching plans of all the programs during the semester and the whole school year. For students the criteria is the lesson they are going to teach during pedagogy practice

Indicators	Description of indicators			Evaluation proofs
	Level 3 (5 points)	Level 2 (3 points)	Level 1 (1 point)	
2.1. Define goals, orientation methods, means and forms, teaching content of lessons during pedagogy practice.	<ul style="list-style-type: none"> - Analyze standards of knowledge, skills of the subjects, study textbooks and reference materials to identify targets, oriented methods and means, the form and content of the lessons during Pedagogy practice. - Define the objectives, methods and means, form, content, lessons during Pedagogy practice following standardized knowledge and skills of the subjects. 	<ul style="list-style-type: none"> - Analyze standards of knowledge, skills of the subjects, study textbooks and reference materials to identify targets, oriented methods and means, the form and content of the lessons during Pedagogy practice - Define the objectives, methods and means, form, content, lessons during Pedagogy practice without strictly following standardized knowledge and skills of the subjects. 	<ul style="list-style-type: none"> Define the objectives, methods and means, form, content, lessons during Pedagogy practice without following standardized knowledge and skills of the subjects. 	<ul style="list-style-type: none"> Objectives, contents, methods, means and forms of teaching expressed in the lesson plans during Pedagogy practice + Teaching plans
2.2. Identify teaching plan of the lessons during Pedagogy practice	<ul style="list-style-type: none"> - Understanding the distributions of curriculum of the Departments of Education and Training, teaching plans of professional groups of schools to identify teaching lessons plan during Pedagogy practice - Determine the time to teach lessons during Pedagogy practice 	<ul style="list-style-type: none"> - Understanding the distributions of curriculum of the Departments of Education and Training, teaching plans of professional groups of schools to identify teaching lessons plan during Pedagogy practice - Determine not fully the time to teach lessons during Pedagogy practice 	<ul style="list-style-type: none"> Determine wrongly the time to teach lessons during Pedagogy practice 	<ul style="list-style-type: none"> Schedule in time the lectures on Pedagogy practice shown in profile or teaching diary

Criterion 3. Understanding facilities - teaching aids

Description: For this criteria, teachers must: Identify facilities, existing teaching aids ; identify the lack of teaching aids. Since then, develop plans to use, purchase or make the lack teaching aids.

Indicators	Description of indicators			Evaluation proofs
	Level 3 (5 points)	Level 2 (3 points)	Level 1 (1 point)	
3.1. Determine the list of facilities, teaching aids available serving teaching activities in Pedagogy practice	<ul style="list-style-type: none"> - Determine the reality of classrooms, desks, seats layout of the student, the teacher's desk, table, projector, screen, libraries, laboratories, departments to determine the list of facilities, existing teaching aids serving teaching activities in Pedagogy practice - Determine the list of facilities, teaching aids available serving teaching activities in Pedagogy practice 	<ul style="list-style-type: none"> -Determine the reality of classrooms, desks, seats layout of the student, the teacher's desk, table, projector, screen, libraries, laboratories, departments to determine the list of facilities, existing teaching aids serving teaching activities in Pedagogy practice - Determine not fully the list of facilities, teaching aids available serving teaching activities in Pedagogy practice 	<ul style="list-style-type: none"> - Determine incorrectly the list of facilities, teaching aids available serving teaching activities in Pedagogy practice 	<ul style="list-style-type: none"> - The list of facilities, teaching equipment is in service of teaching lessons in Pedagogy practice - The methods, means and forms of teaching in the lesson plans

3.2. Develop plans to use, purchase or make the lacking teaching aids.	- Exploiting the information to understand the subjects and explore the facilities, teaching aids to determine the list of lacking teaching aids - Identify the categories of lacking teaching aids and correction plans	- Exploiting the information to understand the subjects and explore the facilities, teaching aids to determine the list of lacking teaching aids - Identify not fully the categories of lacking teaching aids and correction plans	Identify incorrectly the categories of lacking teaching aids and correction plans	The list of necessary lacking teaching aids and correction plans presented in the teaching plans
Criterion 4. Understand the socio-economic and natural characteristics of locality Description: Understanding socio-economic and natural characteristics of locality helps students identify the lessons that can be integrated with the actual conditions of the locality, associated with the practical theory, help school students use knowledge to solve the subject problems that arise in their lives locally. Therefore, the requirements of this criteria is to be pointed out is socio-economic and natural characteristics related to the lesson content and features integrated into the teaching				
Indicators	Description of indicators			Evaluation proofs
	Level 3 (5 points)	Level 2 (3 points)	Level 1 (1 point)	
4.1. Only the socio-economic and natural characteristics of locality related to the content of teaching Biology	- Practical survey to find out the socio-economic and natural characteristics of locality to point out characteristics related to teaching content - Point out the socio-economic and natural characteristics of locality can be integrated into the teaching content	- Practical survey to find out the socio-economic and natural characteristics of locality to point out characteristics related to teaching content - Point out the socio-economic and natural characteristics of locality not really suitable be integrated into the teaching content	- Point out the socio-economic and natural characteristics of locality not suitable be integrated into the teaching content	- An analysis of the socio-economic and natural characteristics of locality in the teaching plan or practice diary - Methods of collecting information about the economic characteristics - social - local natural related teaching content
4.2. Integrate the socio-economic and natural characteristics of locality in teaching Biology	Integrating some the socio-economic and natural characteristics of locality into lesson content	Connecting some the socio-economic and natural characteristics of locality into lesson content	Mentioning some the socio-economic and natural characteristics of locality into lesson content	Integrated content some the socio-economic and natural characteristics of locality into lesson content

4. Conclusions

In order to develop the teaching plan, the first thing the teachers have to understand is the object, environment and teaching conditions, including: Students, subjects, technical facilities, teaching equipment in the school serving teaching and socio-economic factors, natural conditions of the locality to support the teaching practice. The information will be used for curriculum planning. The information about the subject and the teaching environment will be the basis for developing a test-assessment plan in each unit. Develop a rubric for capacity assessment of plan preparation will acquire information about learners to find out which criteria are limited to develop strategies of retraining. In addition, the results of the assessment of the preparation of teaching plans are the basis for adjusting the curriculum to suit the practical conditions.

Rubric evaluation is a choice for many professionals, especially for evaluating learner competencies. It's not only necessary managers to assess the competency of the teacher, but the information in the rubric also guides the teacher to what to do before taking the next steps of the teaching processing. Consequently, design rubric's evaluations are very popular, its not only for assessing teacher competence, but also for assessing the ability of students and learners in different contexts of the teaching processing.

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