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REVIEW ARTICLE

Rubrics in Nursing Education

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Abstract

Evaluating assignments or course work is a challenging job for faculty of nursing. In order to avoid the dilemmas of evaluation, nurse educators use rubrics as an evaluation tool. In educational technology, rubric refers to 'performance standard' for a student population. A rubric is defined as an assessment tool that lays out the set standards and criteria to assess a performance, assignment or behavior. The four essential components of a rubric are task description, scale of achievement, dimensions & description of dimensions. Various types of scoring rubrics are available. The type of rubric chosen for assessment depends on the task being evaluated and the needs of the assessor. Holistic rubrics, analytic rubrics, generic rubrics, specific rubrics are the different types of rubrics. In nursing education, rubrics has got wide range of applications such as to; assess clinical skills, grade assignments, evaluate clinical competency and analyze presentations. Rubrics helps to define "quality performance" and promote awareness on critical components in a performance. Rubrics not only act as an evaluation tool for instructors, but also act as a feedback proforma for students. Rubrics are vital tools that can be utilized to solve the problem of subjectivity in evaluation. Rubrics provide consistency in evaluation, reduces subjectivity and enhances objectivity.

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INTRODUCTION

Evaluating assignments or course work is a challenging job for faculty of nursing. Meaningful evaluation and assessment of graduate level nursing students is considered as a demanding task, fraught with indecision and frustration (Truemper, 2004). Even though teachers convey clear precise evaluation guidelines, students might not understand those methods. To avoid these dilemmas, many educators use rubrics as an evaluation tool. Rubrics not only act as an evaluation tool for instructors, but also act as a feedback proforma for students. A well-developed rubric help to reduce the guessing in evaluation and help to the students to understand and learn from their mistakes (Burghart & Panettieri, 2009). A rubric can be utilized for assessing the students' level of skills or performances (Gallo, 2004). Rubrics can be used for assessing student's assignments, projects, essays, clinical performance and clinical competencies. Designing and using a rubric, expands the level of communication between faculty and students as it clearly defines the criteria and the levels of performance.

HISTORY

The word rubrics came from the Latin word "Ruber", which means 'Red'. During the medieval period, rubric was a set of instructions attached to the law and was written in red. Thus rubric referred to something that was used to authoritatively guide people. In educational technology, rubric refers to performance standard for a student population.

DEFINITION

A rubric is defined as an assessment tool that lays out the set standards and criteria to assess a performance, assignment or behavior. A rubric contains unique dimensions of evaluations arranged in columns and criteria for each of those dimensions in corresponding rows (Renjith & George, 2010). A rubric is defined as “an assessment tool that uses clearly defined evaluation criteria and proficiency levels to gauge student achievement of those criteria” (Montgomery, 2000). In clinical nursing education, rubrics are used to assess student performance and it focuses on aspects of patient safety & quality patient care. Complex and subjective criteria can be authentically & objectively assessed using rubrics (Bradshaw & Lowenstein, 2008).

COMPONENTS OF RUBRICS

The four essential components of a rubric are; 1. Task description, 2. Scale of achievement, 3. Dimensions & 4. Description of dimensions (Burghart & Panettieri, 2009; Boateng, Bass, Blaszak, & Farrar, 2009). The components are represented in figure 1.

- 1. Task description:** Task description refers to the title of the rubrics or the assignment itself. Example: Research protocol presentation, Physical assessment.
- 2. Scale of achievement:** A scale refers to the points/scores that need to be assigned for a work. It is also called as quality rating. The scales are denoted in a continuum of quality with high scores typically assigned to the best work. There are two types of scales, qualitative and quantitative scales. Quantitative scales associate a numerical value to each scale, whereas qualitative scales typically include a quality label. Example for quantitative scale is “1, 2, 3, 4, 5”. Example for qualitative scale is “Poor, Fair, Average, Very good, Excellent”.
- 3. Dimensions:** Dimensions are often referred as evaluation criteria. This section breaks down the skills or knowledge to be demonstrated in the assignment. For skills assessments, the dimensions includes the critical steps that need to be followed while performing the skill. Example: In a rubric to analyze the nursing process, the five aspects of nursing process viz. Assessment, Diagnosis, Planning, Implementation and Evaluation can be made as the dimensions.
- 4. Description of dimensions:** Describes level of performance for each scale based on the dimension.

TASK DESCRIPTION				
	Scale 1 (S1)	Scale 2 (S2)	Scale 3 (S3)	Scale 4 (S4)
Dimension A (DA)	Description (DA-S1)	Description (DA-S2)	Description (DA-S3)	Description (DA-S4)
Dimension B (DB)	Description (DB-S1)	Description (DB-S2)	Description (DB-S3)	Description (DB-S4)
Dimension C (DC)	Description (DC-S1)	Description (DC-S2)	Description (DC-S3)	Description (DC-S4)
Dimension D (DD)	Description (DD-S1)	Description (DD-S2)	Description (DD-S3)	Description (DD-S4)

Figure 1: Components of rubrics

TYPES OF RUBRICS

Various types of scoring rubrics are available. The type of rubric chosen for assessment depends on the task being evaluated and the needs of the assessor.

Holistic Rubrics vs. Analytic Rubrics.

Holistic Rubrics: Holistic rubrics offer a single score based on an overall performance of the student without judging the component parts separately (Mertler, 2001). Quick scoring can be done with the help of a holistic rubric. The major disadvantage of the holistic rubric is that it won't provide any detailed information regarding the performance and in some situations it is difficult to assign an overall score. However holistic rubrics are useful to provide a quick snapshot of performance and in situations where a single dimension is fair enough to define the quality.

Analytic Rubrics: Analytic rubrics make use of several dimensions while assessing a performance. It is converse to holistic rubric. An analytical rubric can be used, when it is necessary to evaluate each component of an assignment (Burghart & Panettieri, 2009). It provides more comprehensive feedback and reduces the subjectivity to a great extent. Analytic rubric provides more consistent scoring across graders. They act as excellent evaluation tools while assessing complex skills or performances. Being exhaustive, analytic rubrics are difficult to make and time consuming to score.

Generic rubrics vs. Specific Rubrics.

Generic Rubrics: As the name suggests, generic rubrics can be used to evaluate a range of tasks. These generic rubrics contains criteria which are general across tasks. The generic rubric fails to provide specific feedback. Generic rubrics can be utilized in assess general skills, and products.

Specific Rubrics: Task specific rubrics are unique to a specific task. It is a means to more reliable assessment of performance. Specific rubrics can be used while assessing specific knowledge and in situations which demand high consistency in scoring. Task specific rubrics with an analytical focus are the most commonly used type of rubrics since they are tailored to assess various aspects of a specific task (Leise & Sayed, 2009). The greatest disadvantage of specific rubric is that it becomes tedious to construct rubrics for all tasks.

DEVELOPING A RUBRIC

Rubrics are becoming an indispensable tool in nursing education. Various authors (Goodrich 1997, Allen & Tanner 2006, Gallo 2004, Mertler 2001) have outlined the steps of developing high quality rubrics. Rubrics are created in a variety of forms and levels of complexities. The three common features of a rubric are; it focuses on assessing a stated objective, performances are rated using a range of standards, and each standard or level indicate a degree of quality (Bradshaw & Lowenstein, 2008). An easy to follow seven step method of developing a rubric is given in figure 2.

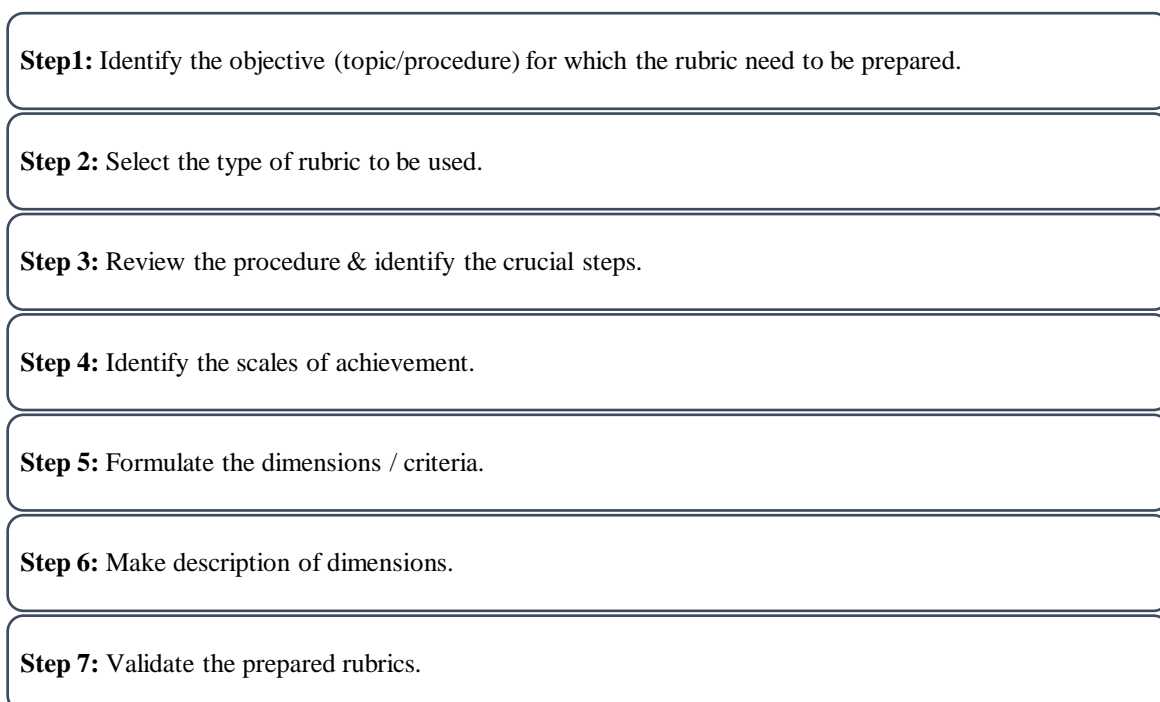


Figure 2: The seven steps for developing a rubric

STRATEGIES FOR MAKING A QUALITY RUBRIC

It is beneficial to have a short brain storming session by faculty experts to decide on ‘what makes a quality performance’. Avoiding more than six dimensions will make the evaluation more reliable. It is desirable to have even number of scales to avoid “central tendency” or “fence sitting”. Always use positive language while writing descriptions. Descriptions of dimensions need to be concise and clear. Vague, superficial reports jeopardize the purpose of having a rubrics (Lund, 2006). Keep the highest scale as the first column on the left as the students will get an idea of the best performance as they start reading. It is a good practice to give the rubric for a peer review.

APPLICATIONS OF RUBRICS

In nursing education, rubrics has got wide range of applications. It can be used to assess clinical skills, grade assignments, evaluate clinical competency and analyze presentations (Boateng, 2009). It can be used as a means to quality assurance and improve the quality of patient care. Rubrics generate an evaluation situation that is less likely to be influenced by the emotions of the teacher as rubrics are based on specific point allocation approach (Shaw,

2014). Rubric is an effective grading tool, which takes out the guesswork out of grading (Truemper, 2004). For faculty members' rubrics, gives clear guidelines for evaluation, provides feedback on effectiveness of the instruction, provides benchmark to measure & document progress, provides a rationale for assigning grades and acts as a powerful communication tool (Bradshaw & Lowenstein, 2008). Rubrics reduces the time teachers spend on evaluating an assignment. The teacher can just simply circle an item in the tool if they want something to say about the performance rather than figuring out what to write as suggestions for improvement (Goodrich, 1997). For students; rubrics helps to define "quality performance" and promote awareness on critical components in a performance. Rubrics clearly communicates what is expected from the student. It facilitates self-reflection and supports students to learn from their mistakes.

RUBRICS IN CLINICAL NURSING EDUCATION

Clinical evaluation of student's performance is a challenging task for faculty. Rubrics act as blue print for effective clinical evaluation. Isaacson & Stacy (2009) outlined the benefits of rubrics in clinical nursing education. Feedback plays a major role in clinical teaching-learning process. Rubrics facilitates communication because feedback given with rubrics are quick, specific, efficient and individualized. Rubrics helps faculty in rapid reviewing. As the tool descriptors clearly mentions the level of performance, faculty can avoid writing comments that justify their rating. This help clinical educators to work & teach effectively in a busy clinical environment. The 'descriptions' explains what is "quality care" and instructs students on what is expected from them. This facilitates quality patient care and patient safety. Rubrics used in clinical nursing education focuses on critical steps to be followed while performing a procedure. Rubrics communicates what is expected of the students and what behavior constitute what grade. Rubrics act as a means of formative evaluation. Students can note the pattern of their problems or progress in an area. Faculty can plan remedial measures if a student consistently makes a specific type of mistake that hinder safe practice. Rubrics facilitate communication between the faculty and students, as it clearly defines the criteria and the levels of performance (Gallo, 2004). A well developed rubric can serve the purposes of teaching, learning as well as grading (Andrade, 2005).

ONLINE RESOURCES ON RUBRICS

Various online resources on rubrics are available for educators. These online resources help nurse educators to prepare rubrics without devoting huge amount of time. Some resources even provide ready rubrics on various topics related to nursing. 'R campus' an online rubric gallery provides a wide range of rubrics that can be utilized by nurse educators. It can be accessed at <http://www.rcampus.com>. The other widely used resource is 'RubiStar' available at <http://rubistar.4teachers.org>.

LIMITATIONS

Despite of its wide applicability, rubrics has got some limitations too. Rubrics are always not self explanatory in nature, many a times educators have to explain the rubric to make it comprehensible. Like any other evaluation tool, the issues with validity and reliability are applicable to rubrics too. A well developed rubric need to be valid & reliable (Andrade, 2005). The other limitations are, it is time consuming to develop an effective rubric & rubrics fails to measure all aspects of education.

DISCUSSION

Blommel & Abate (2007) conducted a study on developing and using a rubric for critical literature evaluation skills of pharmacy students. A rubric was developed to guide the students in presenting a published study critique. The study reported that a well-designed rubric is a useful tool in evaluating the performance of student during journal article presentation. The rubric demonstrated to have a high level of inter rater reliability. An exploratory study was conducted by Kathie (2007) on development and pilot testing of a rubric on clinical judgment in simulation lab settings. The study commented 'rubric' has been valuable in communicating with students about the concept of clinical judgment. The study recommended that since the rubric is effective in simulation laboratory, it will have a valid role in clinical practical settings too. O'Brien and colleagues (2008) evaluated a rubric based assessment method in evaluating pharmacy students' case presentations. Rubric based assessment scores were compared with dichotomous checklist based scores. The study concluded that the development and implementation of a rubric eases the evaluation of knowledge, skills and professional behavior of pharmacy students. Daggett (2008) developed a grading rubric to assess student papers. This rubric addressed common errors that are found in student papers. Error categories in the rubric relate to title page, text formatting, spelling, grammar, punctuation, and references. The rubric helped the instructor in grading students' assignments more comprehensively and to provide quick and detailed feedback. A pilot study was conducted using clark simulation evaluation rubric to score simulation

performance. Sixty-nine associate degree & 109 baccalaureate degree students participated in the study. The rubric was found to be a practical tool that could potentially be used with or without skills checklists (Gantt, 2010).

CONCLUSION

Evaluation is a challenging task for even for the most experienced medical faculty. Rubrics are vital tools that can be utilized to solve the problem of subjectivity in evaluation. Rubrics are becoming an indispensable tool in nursing education. Rubrics act as blue print for effective clinical evaluation. It can be used to assess clinical skills, grade assignments, evaluate clinical competency and analyze presentations. Rubrics provides consistency in evaluation, reduces subjectivity and enhances objectivity (Stevens & Levi, 2005). Multiple teachers, using the same rubrics for evaluating a student's procedure would arrive at the same score or grade.

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