

The development of a rubric to evaluate IPE competencies in game and scenario activities

Brigitte Lepine¹, Myriam Abi Hayla¹, Brad Johnson¹

¹ University of Calgary - Qatar

Introduction

Introduction to the project:

The healthcare in Qatar is relatively young. An approach for introducing Interprofessional Education (IPE) in that system is of great value for the benefits that it brings to that field in general and to the patient in particular. Our project considered implementing IPE at the pre-licensure stage where students could benefit from it and apply it once they go into practice. In order to do that, our team has first developed an IPE model that helped in evolving four shared competency domains. These are:

1. Interprofessional Communication
2. Role Clarification
3. Patient Centered Care
4. Shared Decision Making

After developing the four domains, the shared core competencies were then established. A rubric was then needed to measure to what degree a student would meet the objective and have understood the developed IPE shared core competencies. Two rubrics were created:

- A game rubric was created to assess the competencies of two domains used while playing the games: Interprofessional Communication & Shared Decision Making.
- A scenario rubric was also created to assess the competencies of the four domains used during the scenarios simulations.

Literature Review

A literature review was made on how to develop a rubric in general and how to assess the rubric developed. Little have been found in the literature about rubrics that measures healthcare shared core competencies. Scales about student's assessments were found and considered in the development of our rubric.

Methodology

For the first phase of the rubric development, a literature review on how to develop a rubric that could answer the following criterion (Fraser et al., 2005; Dielissen et al., 2011):

- Does the rubric relate to the outcome being measured?
- Are the dimensions and scales well defined?
- Is there a clear basis for assigning scores at each scale point?
- Can everyone understand the rubric and its indicators?
- Is the rubric fair and free from bias?
- Is there any repetition?
- Is the rubric useful, feasible, manageable and practical?
- Will it provide the kind of information you need and can use effectively?
- Does it cover important dimensions of performance?
- Does it cover all parts of each of the shared core competencies developed?
- What scale to choose?

After developing the rubric, it has been reviewed by all members of the team to check for the following:

- 1- Is there any repetition?
- 2- Is the rubric easy to understand?
- 3- Do the dimensions measure well and all aspects of each of shared core competencies?

The second phase of the development of the rubric was shaped during its application.

For ease of use, we condensed (Figure 1) the first iteration of the scenario rubric from 18 to 6 pages. We reorganized the order of the competencies and the indicators under each domain in such a way to put the competencies and indicators - that was to be most likely seen at the beginning of the video (i.e., during the scenario simulation).

Figure 1

Domain: Shared Decision-Making (DM)			
Definition:			
<ul style="list-style-type: none"> • Healthcare students/professionals include all stakeholders in the decision-making process regarding patient healthcare outcomes. 			
Competency	Indicators	Coding	Examples
Involves All Members (AM) Involves all members of the team as well as the patient and their family members in the decision-making process related to planning and implementing care ^{1,5,6}	<ul style="list-style-type: none"> • Involves other members of team in problem solving related decision-making process 	DM-AM-1	

After extensive discussions and some literature review, the observable performance indicators were revised, while making sure that each of the competencies in each of the four domains was well represented by its performance indicators. An extra column was added to illustrate each of the observable performance indicators (i.e., how to recognize it). Figure 2 (bottom of page)

From our literature review, it was revealed that a 5-point Likert scale and above was used more often; also many articles, referring to Dreyfus model and its five stages skills acquisition (Novice to Expert), were found and helped our understanding greatly.

Some articles helped us fleshing out how many point scale we ought to be using and to formulate an accurate description of the mastery levels (Figure 3) that would help us to measure to what degree a student meets the objective and have understood the developed IPE shared core competencies. (Meretoja et al., 2001; Perie, 2008; Stan Lester Developments, 2005; Thannhauser et al., 2010)

Figure 3

Mastery Levels
Level 0: None —this level demonstrates no mastery of the indicator
Level 1: Beginner —this level demonstrates emergent mastery of the indicator
Level 2: Basic —this level demonstrates partial mastery of the indicator
Level 3: Intermediate —this level demonstrates satisfactory mastery of the indicator
Level 4: Advanced —this level demonstrates competent mastery of the indicator
Level 5: Expert — this level demonstrates higher level mastery of the indicator

Conclusion

In this project, we succeeded in developing a rubric that can measure IPE shared core competencies. This rubric can be presented different ways in order to suit student's or professional's needs. For instance, we have used the same competency indicators for our both activities (games & scenarios) the only difference being we assessed only two domains in the game activities while four domains in the scenarios simulations. Both were considered the pillars for teaching IPE.

This rubric (and its different versions) has helped us coding qualitative data. The result of the analysis will be published soon. See various examples of the rubrics provided for your perusal.

Figure 2

Domain: Shared Decision-Making (DM)			
Definition:			
<ul style="list-style-type: none"> • Healthcare students/professionals include all stakeholders in the decision-making process regarding patient healthcare outcomes. 			
Competency	Indicators	Descriptions	Coding
Involves All Members (AM) Involves all members of the team as well as the patient and their family members in the decision-making process related to planning and implementing care ^{1,5,6}	Gets involved and ensures all members of the team participate in the discussions related to the decision-making process during planning and implementing care.	This means involving all members of the team, by making sure everyone participate in the decision-making process during the planning and implementation of care	DM-AM-1
	Integrates patient and family in the decision-making process during planning and implementing care.	This means the team member is required to involve the patient and family when planning or implementing care; i.e. asking questions, getting their feedback	DM-AM-2

Acknowledgements

This project was motivated by the work of the Qatar Interprofessional Health Council (QIHC) and was actively supported by the council.

This research is made possible by a grant from the Qatar National Research Fund under its National Priorities Research Project (NPRP), award number NPRP 4-693-3-197.