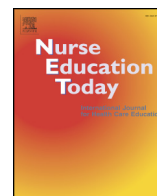




ELSEVIER

Contents lists available at ScienceDirect

Nurse Education Today

journal homepage: www.elsevier.com/nedt

Expert validation of a teamwork assessment rubric: A modified Delphi study

Jenny A. Parratt^{a,1}, Kathleen M. Fahy^a, Marie Hutchinson^b, Gui Lohmann^c, Carolyn R. Hastie^a, Marilyn Chaseling^d, Kylie O'Brien^e

^a School of Health and Human Sciences, Southern Cross University, Locked Mail Bag 4, Coolangatta, QLD 4225 Australia

^b School of Health and Human Sciences, Southern Cross University, PO Box 157, Lismore, NSW 2480, Australia

^c School of Natural Sciences, Griffith University, 170 Kessels Road, Nathan, QLD 4111 Australia

^d Centre for Children and Young People, School of Education, Southern Cross University, PO Box 157, Lismore, NSW 2480, Australia

^e National Institute of Integrative Medicine, 11-23 Burwood Rd., Hawthorn, VIC, Australia

ARTICLE INFO

Article history:

Accepted 24 July 2015

Available online xxx

Keywords:

Teamwork

Educational assessment

Rubric

Undergraduate

Validation study

Expert opinion

Modified Delphi technique

SUMMARY

Background: Teamwork is a 'soft skill' employability competence desired by employers. Poor teamwork skills in healthcare have an impact on adverse outcomes. Teamwork skills are rarely the focus of teaching and assessment in undergraduate courses. The TeamUP Rubric is a tool used to teach and evaluate undergraduate students' teamwork skills. Students also use the rubric to give anonymised peer feedback during team-based academic assignments. The rubric's five domains focus on planning, environment, facilitation, conflict management and individual contribution; each domain is grounded in relevant theory. Students earn marks for their teamwork skills; validity of the assessment rubric is critical.

Question: To what extent do experts agree that the TeamUP Rubric is a valid assessment of 'teamwork skills'?

Design: Modified Delphi technique incorporating Feminist Collaborative Conversations.

Participants: A heterogeneous panel of 35 professionals with recognised expertise in communications and/or teamwork.

Methods: Three Delphi rounds using a survey that included the rubric were conducted either face-to-face, by telephone or online. Quantitative analysis yielded item content validity indices (I-CVI); minimum consensus was pre-set at 70%. An average of the I-CVI also yielded sub-scale (domain) (D-CVI/Ave) and scale content validity indices (S-CVI/Ave). After each Delphi round, qualitative data were analysed and interpreted; Feminist Collaborative Conversations by the research team aimed to clarify and confirm consensus about the wording of items on the rubric.

Results: Consensus (at 70%) was obtained for all but one behavioural descriptor of the rubric. We modified that descriptor to address expert concerns. The TeamUP Rubric (Version 4) can be considered to be well validated at that level of consensus. The final rubric reflects underpinning theory, with no areas of conceptual overlap between rubric domains.

Conclusion: The final TeamUP Rubric arising from this study validly measures individual student teamwork skills and can be used with confidence in the university setting.

© 2015 Elsevier Ltd. All rights reserved.

Background

The Teamwork assessment rubric evaluated in this paper is designed to test an essential 'soft' employability competence desired by the vast majority of surveyed employers (Hart Research Associates, 2009; Robles, 2012). The Australian Qualifications Framework (2013) requires that higher education institutions develop students' 'Generic Skills', including 'working with others' and 'interpersonal skills'. Despite this

readily articulated need, teamwork skills are usually not explicitly taught and rarely tested (McNair, 2005; Oliver, 2011). Within healthcare, poor teamwork skills are cited as causal factors in adverse outcomes (Centre for Maternal and Child Enquiries, 2011; Department of Health and Ageing, 2009; Douglas et al., 2001; Garling, 2008; Manser, 2009).

Although nurses and midwives provide much of their care on a one-to-one basis, they are also most often constituted in standing, discipline-specific teams—such as the nursing team on a shift at the ward level or the birth suite midwifery team. Additionally, nurses and midwives are part of multidisciplinary teams such as 'the Renal Team' or the 'Maternity Care Team' that include doctors and allied health professionals. Thus,

E-mail address: jennifer.parratt@scu.edu.au (J.A. Parratt).

¹ Postal address: Post Office box, Mandurang, Victoria 3551, Australia. Tel.: +61 409 393073.

teaching and assessing the teamwork skills of health professionals deserves careful attention from health professional educators.

Some may argue that communication and teamwork abilities are inherent individual characteristics and therefore potentially unchanging (Belbin, 2010; Kinlaw, 1991). In contrast, this paper proposes a skills-based approach to teamwork skills development. This approach is consistent with a functional theoretical model that is the dominant contemporary theory (Burke et al., 2006; Hughes and Jones, 2011; Morgeson et al., 2010; Mumford et al., 2008). In 2012, we introduced academic teamwork assignments and the peer marking of individual teamwork skills in the Bachelor of Midwifery. An evaluation survey of these students indicated that students wanted specific guidance about teamwork skills (Parratt et al., 2014). A literature review on teamwork skills and how they might be best assessed found no relevant, detailed, assessment rubrics were published (Hastie et al., 2014). Following recommendations suggested by Hughes and Jones (2011), we modified the generic American Association of Colleges and Universities' (ACCU) rubric (Rhodes, 2010) to create the TeamUP assessment rubric. The TeamUP Rubric has undergone evaluation and further development in the subsequent years. The educational theory underpinning the development of the TeamUP Rubric assessment process is described elsewhere (Hastie et al., 2014).

In 2013, we formed an action research group of academics to systematically assess, plan, implement and evaluate our efforts to teach and assess teamwork skills. Currently, there are nine core members in the Action research group; one in the discipline of education, one in management and seven health professional educators; three are midwives, two are nurses and two are engaged in complementary medicine. We designed the TeamUP educational enhancement and implemented it in all 3 years of the bachelor of midwifery and in one semester of the fourth year of the bachelor of education. Table 1 provides the key theoretical definitions; other key TeamUP terms have been modified during this research and are defined later in the paper.

TeamUP is a package of teaching and learning activities based on a theoretically grounded assessment rubric (Hastie et al., 2014). This rubric was designed to guide student learning and to assess the teamwork skills that they practice while undertaking team-based academic assignments in higher education. The focus of the TeamUP Rubric is on the fundamental teamwork behaviours that can be taught, practised and assessed so that individual students are enabled to develop their skills over time. Students use the rubric to provide anonymous peer feedback to each other; the subject coordinator then assigns individual teamwork marks, taking into account peer feedback and other evidence such as project plans and meeting minutes. The other elements of TeamUP are six lectures and six associated skills practice tutorials on topics directly relevant to the skill domains referred to in the rubric.

Validity of teamwork performance assessment needs to be addressed systematically because of the potential consequences for graduates, and ultimately patients, of unsound practices. This paper reports on research aimed at strengthening the validity of the TeamUP Rubric. The question guiding this validation study was, to what extent do

experts agree that the TeamUP Rubric is a valid assessment of 'teamwork skills'?

According to traditional psychometric theory, 'validity pertains to the extent to which a test measures what it is supposed to measure' (Schuwirth and van der Vleuten, 2011, p. 786). Validity has traditionally been considered as criterion, content and construct related. Messick (1995), a well-respected expert in assessment validity, argues that 'validity' is not a property of a test (i.e., the test itself is not valid). He instead maintains that the concept of validity reflects the meanings that are made of assessment results and what is done based on those meanings (e.g., passing versus failing a student). Likewise, Schuwirth and van der Vleuten (2011) claim that the best way to consider validity is to see it as a subjective, qualitative judgment, normally taken by someone with expertise in the area being tested. We agree with Messick (1995) that ultimately, assessment of validity is 'an overall evaluative judgement of the degree to which empirical evidence and theoretical rationales support the adequacy and appropriateness of interpretations' of assessment outcomes (p. 741).

This paper focuses on content validity by evaluating the representativeness and relevance of the items in a tool or assessment (Lynn, 1986; Polit and Beck, 2006). A tool with good content validity is necessary for supporting an argument of construct validity. Construct validity is defined as 'the extent to which empirical evidence confirms that an inferred construct exists' (e.g., 'teamwork skills') 'and that a given assessment procedure is measuring the inferred construct accurately' (Popham, 2011, p. 89).

Methodology

The research reported here relates to the evaluation phase of an ongoing action research project called TeamUP. Action research is a widely used methodology where co-researchers repeatedly undertake cycles of assessing, planning, implementing and evaluating, which in turn generates practical knowledge that can change practice (Reason and Bradbury, 2008). The practice change we are seeking is our own academic practice as teachers and assessors of student teamwork skills. The overall TeamUP project is grounded in feminist methodological commitments. The Delphi study reported here gathered both quantitative and qualitative data.

The feminist nature of the action research depends upon the definition that; feminism is the theory, research and practice that aims to identify, understand and change intrapersonal and social factors that sustain women's disempowerment (Harrison and Fahy, 2005). In the case of nursing and midwifery students, we wanted to promote their empowerment by developing teamwork skills that will enable them to be both wiser and more empowered in their teamwork interactions; particularly in the workplace. In line with our feminist commitment, previous and ongoing aspects of the TeamUP project have specifically included engagement with the students themselves about their experiences of teamwork assessment using the TeamUP Rubric (Hastie et al.,

Table 1
Definitions of key terms.

Behaviour	Behaviour is the internally coordinated responses (both actions and inactions) of the whole organism to internal and/or external stimuli, excluding responses more easily understood as developmental change (Levitis et al., 2009).
Learning	Learning is the process of changing behaviour as a result of experience. Consistent with constructivist learning theory, when students are facilitated to engage in teamwork projects, individual learning occurs in communities of practice with the aim of enhancing socialisation for all team members (Smith, 2003, 2009).
Rubrics	A rubric is a scoring tool that divides an assignment into its component parts and objectives, and provides detailed descriptions of what constitutes acceptable and unacceptable levels of performance (Hastie et al., 2014; Stevens and Levi, 2004).
Skill	A skill is the ability to perform a specific behaviour well. A skill requires knowledge, attitude and practice; skills develop over time (Yallop et al., 2005)
Teams:	
1. Standing teams	Standing teams (e.g., disciplinary or multidisciplinary teams) are relatively stable and persist over time so there is an expectation of ongoing relationships and interactions between members often exceed role functions (Alge et al., 2003).
2. Drill teams	Drill teams (e.g., emergency or surgical teams) continue for only short periods and membership changes; however, roles are clearly defined and as a result member interactions are usually limited to role functioning (Alge et al., 2003).

Download English Version:

<https://daneshyari.com/en/article/6847628>

Download Persian Version:

<https://daneshyari.com/article/6847628>

[Daneshyari.com](https://daneshyari.com)