Exploring the potential of role play in higher education: development of a typology and teacher guidelines

Deepa Raoa and Ieva Stupansb*

aSchool of Pharmacy and Medical Sciences, University of South Australia, Adelaide, South Australia; bSchool of Science and Technology, University of New England, Armidale, Australia

Role-play, in which learners act out roles in case scenarios, appears to be used across a broad range of discipline areas to address learning across the cognitive, psychomotor and affective domains. This paper describes the development of a prospective typology of role-play learning opportunities derived from role-play scenarios used at one large Australian university. The typology included three categories namely ‘Role-Switch’, ‘Acting’ and ‘Almost Real Life’. As an approach to using role-plays ‘Role-Switch’ as a model overtly focuses on helping students to learn from the inside out, i.e. to understand the actions of either people or things through taking on the role of being this other person or object. The ‘Acting’ model of role-play focuses on developing students practical skills through ‘acting out’ a small group scenario (e.g. patient, professional and observer) that requires the practising of a skill. In the ‘Almost Real Life’ category, students are provided with a role-playing experience, i.e. as close to the real experience as is possible. The paper also presents a collaboratively developed set of guidelines for those higher education teachers who may be considering using this active learning approach.

Keywords: affective; Bloom’s taxonomy; cognitive; psychomotor; role-play; typology

Introduction

There is an extensive range of active learning approaches, including role-play, that higher education teachers may use to engage students potentially enhancing student understanding (Cherney, 2008). Role-play, along with gaming and computer simulation, is considered to be a type of simulation and has been described as either interactive whereby participants act out the role of a character in a particular situation following a set of rules, or non-interactive whereby a presentation is made by a participant who has adopted a particular character (Lean, Moizer, Towler, & Abbey, 2006).

Role-plays have been used in diverse applications across many disciplines. In medical education, those programmes that incorporate role-play are often more successful in helping individuals to acquire communication skills in comparison to didactic methods of teaching (Aspegren, 1999; O’Brien et al., 2007). Role play has
been used in postgraduate counsellor education to develop skills in managing emotional reactivity when working with complex client presentations (Grant, 2006). Role-play has been shown to enhance active-listening skills, social problem-solving skills and demonstration of emotional empathy in the area of hostage negotiation (Van Hasselt et al., 2005) and to foster team work in aviation (Beard, Salas, & Prince, 1995). In the biological sciences, role-play has been used to develop students’ conceptual understanding (Ross, Tronson, & Ritchie, 2008; Sturges, Maurer, & Cole, 2009). Role-play has been used to emphasise the socio-technical aspects of software engineering in computing programs (Tyson & Janine, 2006). In secondary education, school students role-playing as parts of a mass spectrometer have been reported to have acquired a good understanding of the workings of the analytical technique (Perry, 2007). In the community sector, role-play has also been described as a novel approach for the conducting of participatory research on natural resource management in a Vietnamese farming community (Boissau, Lan Anh, & Castella, 2004).

Role-play is used in across a broad range of situations, such as those described above; however, the nature of learning outcome achievement is not explicit. Role-play is considered to be effective in achieving a broad range of learning outcomes and indeed able to address cognitive, affective and psychomotor domains of learning as described in Bloom’s taxonomy (Anderson et al., 2001). For example, role-plays can be valuable teaching approaches for knowledge acquisition (cognitive domain), particularly if observation of others is involved and understanding and assimilation of such information is important (Eitington, 2001; Lauber, 2007; Taylor, 1999; Van Ments, 1994). Role-play is widely used as an educational method for learning about communication in medical education (Nestel & Tierney, 2007); repeated role-play opportunities with feedback also provide opportunity for acquisition of skills other than communication (Panzarella & Manyon, 2008) (psychomotor domain). With respect to attitude (affective domain) development, spontaneous emotions may be important (Roberts, Wiskin, & Roalfe, 2008).

With respect to role-play as an engaging approach to teach course content, it is acknowledged that motivation is a critical component of learning and that mere activity may not augment student learning (Leamson, 2000). The ARCS model, which includes the four key components of attention, relevance, confidence and satisfaction, has been widely used in design, development and evaluation of motivating strategies (Keller, 1987). In this context, role-play aligns with concepts for motivating learning approaches, with possibilities for capturing student attention and through emphasis of the relevance of the tasks in debrief. There are also acknowledged benefits for learners of approaching ideas from multiple perspectives (Merrill, 2002).

We propose that a typology of role-play learning designs would enable higher education teachers to select role-play approaches which could be best used to provide learning opportunities to promote cognitive, affective and/or psychomotor domains of learning. However, a systematic search of peer-reviewed higher education literature by the authors of the work presented in this paper has not located a developed typology of role-play. This paper presents such a typology developed across a broad range of disciplines at one Australian University. The paper also presents a collaboratively developed set of guidelines
for those higher education teachers who may be considering using this active learning approach.

**Method**

Course coordinators across the University were contacted by email to identify those courses where role-play was currently being used. Eight course coordinators/teams were interviewed in a semi-structured interview to identify a series of features around the courses and the use of role-play. The courses were purposefully selected to reflect a diverse range of disciplines. The features of the course explored in the semi-structured interviews included the aims of the course, the purpose of the role-play, in particular whether the purpose was around student learning of knowledge or professional skills and attributes or indeed a combination of these, and/or whether a primary intent was the development of communication skills; the motivation/reasons for introduction of the role-play; the physical ‘set up’ of the interaction – students, tutors, physical space and arrangement, length of role-play; information given to students before role-play in relation to expectations and projected specific learning outcomes; assessment of role-play, assessment proforma, feedback provision, e.g. by tutor or through peer evaluation, grade distribution, comparison of assessment of role-play with other assessment methods in the course; student satisfaction and reflection by the students on the activity generally and its structure or relative lack of structure; changes in the way the role-plays had been run over time, i.e. with each iteration of the course; what worked, what did not with respect to running the role-plays and what sort of scaffolding was provided. An example of a typical scenario was also requested during the interview.

The interviews were transcribed, and key themes arising from the interviews were collated and analysed through manual processes involving sorting of notes; reading through information to make general sense; recording of thoughts about the data and organising material into categories (Strauss & Corbin, 1998). A draft discussion paper presenting key themes from the interviews was distributed to the interviewees four days prior to a one day workshop for all project participants. The purpose of this workshop was to provide an opportunity for collaborative examination of the draft paper and to collectively develop guidelines for the use of role-play in teaching. A final discussion paper (from which results are drawn and presented here) was distributed to all participants. Feedback around the applicability of the typology and guidelines was subsequently sought from the participants.

The study was approved by the University of South Australia Human Research Ethics Committee.

**Results and discussion**

A brief summary of the role-play scenarios is shown in Box 1. Scenarios are presented for a number of disciplines and in fact, three of the teachers used role-play in several courses, sometimes in somewhat different ways. For example, in outdoor education, students role-play teaching their peers a particular skill or activity. Students also participate in supervised outdoor expeditions, and role-play responses to an emergency scenario.
A prospective typology of role-play types was derived from the findings of these scenarios and included three categories namely ‘Role-Switch’, ‘Acting’ and ‘Almost Real Life’. The terminology ‘Role Switch’ has been adapted from work, which examines interactive processes between learning partners (Kollar, Fischer, & Hesse, 2006). As an approach to using role-plays ‘Role-Switch’ as a model overtly focuses on helping students to learn from the inside out, i.e. to understand the actions of either people or things through taking on the role of being this other person or object. Learning from the inside out was identified as attending principally to the cognitive domain of Bloom’s taxonomy (Anderson et al., 2001). The ‘Acting’ model of role-play focuses on developing students practical skills through ‘acting

Box 1: Brief description of Role-Play Scenarios used in various courses.

1. Early childhood education: Students role-play a child of a particular age, other student role-play a variety of skills whereby they scaffold and prompt those children to stay on task, to share etc. In this way, students develop a range of skills ‘like a tool box’. There is an expectation that the students know the interests, needs and capacities of children from developmental checklists and milestones.

2. Computing: Role-plays are used in a course focused on computer networking. Each group of four students role-play a computer and each student plays a different layer of software. Messages are sent on pieces of paper, modifications are made as the messages are passed on, with the whole room becoming a network. The role-play occurs early in the semester and is referred back to so that students are helped to appreciate the links between current and previous lecture materials.

3. Physiotherapy: Role-plays are used in a ‘professional’ arrangement and are chiefly used in the teaching of professional skills, practical skills and the learning of communication specific to those skills as well. Students role-play in the physiotherapist and client roles in a range of practical skills such as manual handling.

4. Occupational therapy: In the first year of the programme, role-plays are used to build students communication and feedback skills to and start building the process of reflection on their interactions. In a counselling course in the third year of the programme, students undertake real interviews with other occupational therapy students.

5. Law: Role-plays are used to model professional practice, to enable them to develop a specific communication skill set such as negotiation and to develop teamwork skills. Scenarios include students role-playing lawyers and, for example, the managing partner in a law firm. Practising legal practitioners also participate.

6. Outdoor education: Students participate in a range of role-plays. For example, teaching their peers, a particular skill or activity. Role-plays are also used to develop facilitation, communication and leadership skills. Students also participate in supervised outdoor expeditions, and role-play responses to an emergency scenario.
out’ a small group scenario (e.g. patient, professional and observer) that requires the practising of a skill and was identified as attending principally to the affective and psychomotor domains of the taxonomy. In the ‘Almost Real Life category’, students are provided with a role-playing experience, i.e. as close to the real experience as is possible. It allows students to apply their skills in a simulated but safe environment and was identified as attending to all domains of Blooms taxonomy (Anderson et al., 2001) – cognitive, affective and psychomotor.

This typology emerged from the thematic analysis of the transcripts of individual interviews, and has been supplemented by reference to workshop discussions. The typology is further described in Table 1.

As discussed above, role-plays have been used across many disciplines; the prospective typology presented in this manuscript illustrates the transferability of practices across disciplines. Role-play learning opportunities in our work appeared to be of two main types – a tool to train students primarily in skills and values required for their future professional work and primarily an engaging approach to teach course content.

Within the first category some role-play approaches were what we described as ‘almost real life’ – students are supported in carrying out high-level professional

<table>
<thead>
<tr>
<th>Model</th>
<th>Role switch</th>
<th>Acting</th>
<th>Almost Real life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Learning from the inside out (of people or ‘things’)</td>
<td>Playing out and/or exploring a scenario</td>
<td>Using real life (students own experiences)</td>
</tr>
<tr>
<td>Example</td>
<td>Computer technology, early childhood education</td>
<td>Physiotherapy, occupational therapy, outdoor education, law and early childhood education</td>
<td>Occupational therapy and outdoor education</td>
</tr>
<tr>
<td>Principle learning domains</td>
<td>Cognitive</td>
<td>Affective and psychomotor domains</td>
<td>Cognitive, affective and psychomotor</td>
</tr>
<tr>
<td>Key quotes from course coordinators</td>
<td>‘I would say that an essential component of role-play is the ability to switch your own position from your own subjective assessment into seeing how it is from another point of view’</td>
<td>‘it really was around encouraging students to actually use the skills before they go out on placement and are in real situations where we want them to use the skills. It was seen as a safe environment for them to step out into using some of these skills and reflecting on their capacities around those skills’</td>
<td>‘we shifted from role-play to sort of reality in the counselling sessions’ ‘… to develop [self] analysis and … to use experiential learning to reinforce theory’</td>
</tr>
<tr>
<td>Cautions</td>
<td>Needs to be well set up e.g. background information detailed description of what is required of students</td>
<td>Potential for ‘acting’ as opposed to displaying professional skills Props may need to be available</td>
<td>Some caution with risky topics such as suicide Sensitivity to student trust of each other</td>
</tr>
</tbody>
</table>
tasks such as counselling and responding to an emergency situation in an outdoor expedition, however, the clients are other students rather than general public. Compared with experiential placements or work integrated learning, the learning environment in the ‘almost real life’ role-plays is more predictable with respect to exposure to ‘real clients’.

The potential of role-play to be able to address subdivisions of the three domains of educational activities – cognitive (knowledge), affective (attitude) and psychomotor (skills) as described in Bloom’s taxonomy (Anderson et al., 2001) was examined as described above. In this taxonomy, subdivisions reflect a hierarchy of learner behaviours from the simplest to the most complex. First, it is noteworthy that the activities within the role-play were found to be at a relatively high level of application and/or analysis in the cognitive domain whereby students transformed information and ideas.

Secondly, both affective and psychomotor domains could also be aligned with high levels. The affective domain appeared to be at the high levels of organise and conceptualise values, e.g. creating a unique, synthesised value system. The psychomotor domain appeared to be at the high level of articulation, e.g. responding effectively to unexpected experiences.

The typology provides a tool to assist in the selection of best practice approaches to using role-plays within higher education. Once the objectives for the learning opportunity have been determined, i.e. cognitive, psychomotor or affective objectives, the typology provides a means of determining what kind of role-play might be suitable. Our typology was based on learning opportunities developed across a broad range of disciplines at one Australian University. This typology also provides a framework for examples located in the literature. For example, examples from the biological sciences (Ross et al., 2008; Sturges et al., 2009) fit with the ‘Role Switch’ model focused on helping students to learn from the inside out providing an engaging environment within which to enhance student’s conceptual understanding of difficult content. In medical education acquisition of communication skills (Aspegren, 1999) fits with the ‘Acting’ category, whilst postgraduate counsellor education fits the ‘Almost Real Life’ category (Grant, 2006).

Collaboratively developed guidelines for use of role-play in teaching are listed in Box 2.

Box 2: Collaboratively developed guidelines for role-play.

- Consider the purpose of role-plays
- Consider the type of role-play
  - Need to consider quality i.e. depth of role-plays or number of role-plays utilised. Which gives more benefit to learner?
  - The size of the groups
  - The roles required
- Provide background information prior to role-play
  - What content knowledge do students need prior to undertaking role-play?
- May need to provide fragments of starting script
  - Guidelines around respectful behaviour and confidentiality
  - Expectations
In the literature, a number of guidelines have been put forward for the use of role-play in teaching. These guidelines include teacher preparedness, clarity around goals and awareness of limitations inherent in the learning context, adequate time and space, including time for reflective discussion and the necessity for students’ evaluation of the impact of the role play on their learning and teacher evaluation of the effect on student learning (Freeman & Capper, 1998). Other authors have proposed guidelines which also include creation of packaged challenging cases, allowing adequate time, involving all students, defining the ground rules, keeping observers busy, using a structured assessment form, ensuring debrief and feedback to all participants, encouraging reflection and maintaining your sense of humour (Joyner & Young, 2006). The behaviour modelling approach using simulated role-plays describes guidelines that include introduction to the general content, observation of an example related to the required skills, practising the skill in a safe simulated environment, feedback and debriefing and applying the skills developed or acquired in a real-life setting (Pescuric & Byham, 1996; Taylor, 1999).

Many of our guideline points (Box 2) overlap with those described above (Freeman & Capper, 1998; Joyner & Young, 2006). Our guidelines also include

- Determine whether role-play is to be assessable or formative?
  - If role-play is assessed, formative practice is necessary prior to summative assessment of the role-play.
  - Assessment criteria with clear rubrics
- Consider whether you will give demonstration of technique and if so, will this be before or after the students. Would a demonstration lead to students copying?
- Consider the set up:
  - Consider props to contextualise situation and assist students to visualise roles
  - Consider rotating groups to avoid bad behaviour/habits being reinforced or a deep relationship between only two
- Will feedback include peer feedback and how will this be done? Peer feedback may require specific guidelines such as identify one strength, one weakness and one ‘missed opportunity’
  - Videoing needs to be considered to provide a stimulus for reflection by student
  - Multiple sources of information should be considered – video plus feedback from client perspective, practitioner perspective and observer perspective
  - Supervision numbers in our examples ranged from 1–4 to 1–75. Tutor presence may inhibit performance or prevent risk taking by students
- Overall need extensive pre-activity planning, activity and then debrief
- Remember that it’s challenging to do role plays and humour is often used to cope with anxiety
consideration of rotating groups, quality, i.e. depth of role-plays or number of role-play episodes and which of these options gives more benefit to learners, and whether the teacher should demonstrate techniques to be used in the role-plays.

The one outstanding finding from interviews with our sample of course coordinators in our work was the need for extensive pre-activity planning, activity and then debrief.

Miller’s triangle describes a framework for clinical assessment (Miller, 1990) and has been used as a model to display levels of fidelity of simulation approaches (Alinier, 2007). Within Miller’s framework a progression is shown from ‘knowing’ what is required to carry out a professional function effectively, through ‘knowing how’ to use the knowledge, ‘showing how’ to apply the knowledge to ‘doing’. We have adapted Miller’s triangle to display our proposed typology (Figure 1).

Unlike Miller’s triangle, we have not focused on competency assessment but on representing the focus of activity and its complexity. Some role-play approaches, i.e. the ‘role switch’ represent an engaging approach to teach course content – the ‘know’ dimension. The acting approach in which students play out and/or explore a scenario is related to ‘knows how’ and ‘shows how’. The ‘almost real life’ is shown at the level of students ‘doing’. Interestingly, this level corresponds to use of high-fidelity simulation platforms in medical education (Alinier, 2007).

Feedback from the project participants, around the applicability of the typology and guidelines, has been positive. One participant will be using the findings of the study in a discipline workshop as a focus for development of good practices in the use of role-play in his discipline – Outdoor Education. ‘I will be drawing upon some of the categories that have emerged regarding the use of role play, the limitations and the assessment examples … I hope to emerge from the workshop with specific examples which illustrate these categories’.

Conclusion
We have described the development of a prospective typology of role-play learning opportunities and a collaboratively developed set of guidelines for teachers considering role-play. This typology displays the potential utility of using role-play as a learning opportunity.
Some authors have reported the reluctance of students to participate in role-plays (Woodhouse, 2007). Interestingly, none of our project participants reported this disadvantage, this may reflect the pre-activity planning, our teachers undertook before running the role-plays.

Notes on contributor
Both Deepa Rao and professor Ieva Stupans are working as pharmacy academics at the University of South Australia and the University of New England, respectively. Both have interests particularly in the development of counselling skills of pharmacy students.

References