

# The use of applied drama in crisis management: an empirical psychological study

*Joanne Arciuli, John Carroll and David Cameron suggest applied drama methods can be used in training professionals in crisis management.*

## Abstract

This empirical study examined whether role-based participation in dramatic scenarios enables a first-hand understanding of decision-making under pressure in a team situation. We asked 30 members of the undergraduate university population to take part in a role-based drama concerning an incident (fictitious) that occurred on campus and subsequently escalated into a crisis. Using the same scenario we conducted three sessions; female only ( $n = 10$ ), male only ( $n = 10$ ) and mixed ( $n = 10$ ). Results showed that the exercise was perceived to be realistic and educational. Moreover, the exercise appeared to tap in to a range of skills including effective communication, critical analysis of information and respect for individual differences. There were no significant effects of gender. We suggest that these applied drama methods can be used to assist in the training of professionals working in the area of crisis management.

Crises occur in a variety of forms (e.g., natural, man-made, government, corporate etc) and there exist numerous crisis typologies (see Gundel, 2005, for discussion). They tend to share general characteristics such as being unpredictable and dynamic. Another commonality concerns the importance of effective *communication* amongst crisis managers during these times. Effective crisis management communication requires high-functioning individuals situated within coherent and co-operative teams (in which individual team members are able to appreciate others' points of view).

One challenge that confronts many in the area of crisis communication concerns the provision of cost-effective training and educational scenarios within a protected environment. Various methods have been put forward as ways to address these needs. Certainly, there is growing reliance on software-based methods of crisis communication training (Leigh et al 2007, Garrett et al

2008) most obviously in simulators related to aircraft flight and the operation of heavy machinery. Shaffer (2006) argued that software-based gaming can bridge that gap between novice and professional by assisting with rapid adoption of innovative real-world problem-solving skills. However, the degree of software-based usage varies widely (Marincioni 2001). Some of the reasons for this variation include the difficulty in simulating appropriate physical environments and complex human interactions in large groups. In addition, there are substantial costs associated with the development, administration and maintenance of software-based systems. For these reasons off-line exercises remain popular in crisis management training. For example, Alexander (2004) outlined the use of cognitive mapping as an off-line training exercise.

Applied drama methods are particularly useful where the degree of fidelity required for the simulated environment/interactions is difficult to replicate. In the current study we tested the effectiveness of role-based applied drama methods in off-line training exercises. Here, 'effective' was defined as the ability to elicit increased awareness, co-operative responses and individual skill—as a result of genuine cognitive and emotional engagement—within a protected environment. Moreover the immersive qualities of role-based applied drama provide these clear learning outcomes in a cost effective way.

Applied drama is a form of role-based performance with a history that goes back to the middle of the 20th Century. It draws on the earlier educational drama work of Slade (1954), Courtney (1968), Bolton (1984), Heathcote (1991), O'Neill (1995), Haseman (1991) and many others. It is based on improvised performance, situated in a specifically devised context and designed to develop dramatic narrative and problem solving without a script or an external audience. It is lived at life-rate and operates from a discovery-in-the-moment basis rather than being memory-based (Bowell & Heap 2001 p.7.). The narrative development, tension and context unfold in time and space through the action, reaction and interaction of the participants. It is an approach to learning and training that emphasizes involvement, participation and engagement (Nicholson 2005),

which are seen as of particular significance for its use in simulation training. The applied drama concept of adopting a dramatic role-based identity has been utilised by education, management training and business, as well as computer studies (Turkle 1995). It is also a central concept in the analysis of digital environments such as virtual reality spaces, online chat rooms and videogames (Ryan 2001). There is a growing focus on the efficacy of mediated forms of teaching and learning especially as web-based technology provides a wider range of communication platforms to host complex interactions (Carroll, Anderson & Cameron 2006).

Interestingly, the influence of gender in applied drama and in crisis management has seldom been directly addressed in previous research. However, there are some previous research findings that are of relevance. It has been argued that women excel at tasks requiring group-based consensus (Wood, Polek & Aiken, 1985). Other research indicates that males are more likely than females to emerge as dominant individuals in groups (e.g., Kent & Moss, 1994) or that males are likely to exhibit individual dominance acts only when their group is asked to undertake a highly structured activity as opposed to unstructured tasks (Mabry, 1985). It has also been reported that women are more risk-averse than men during decision-making (e.g., see Karakowsky & Elangovan, 2001).

One aim in the current study was to examine whether applied drama methods are seen as realistic and relevant for crisis management training by the participants. We also sought to assess whether these methods are able to tap in to the range of skills required for effective crisis management in team situations such as: effective communication, critical analysis of information and respect for individual differences. Clearly, any group-based training exercise with the potential for gains in skills of individual participants is of value in crisis communication training. In answering all of these questions we sought to assess the possibility of gender effects.

We hypothesised that applied drama methods would be seen as realistic and educational for the purposes of learning more about crisis management. We were unsure what to expect with regard to gender differences. It seemed possible that the female-only group may exhibit higher quality interactions than the male-only group and that, as a result, the female-only group may be less likely to report dominance by individual members of the group. However, given that the groups had not worked together before, that the task was fairly unstructured and there were not any high-risk decisions involved it also seemed possible that we would find no gender differences. We were not sure what to expect with regard to perceived benefits for individual participants in terms of specific skills.

## Method

### Participants

A total of 30 participants were recruited from the first-year undergraduate psychology student population at a large regional university. Students participated in return for course credit. We conducted three separate sessions using the same scenario and the same actors. Participants were randomly assigned to one of three groups: female only (n = 10, average age: 19.9 years), male only (n=10, average age: 19.8 years) and mixed (n=10, average age: 20.3 years).

### Experimental session (scenario and questionnaire)

The session took place over 1 hour. The scenario (background information) used during the session was fictitious and the simulation (dramatic enactment) was based on a reported incident that occurred in on-campus accommodation at a university. There were 4 (non research participant) 'facilitators' involved in the scenario who assisted by working in-role and coaching the participants into role-based involvement and in building the dramatic tension. The drama-based roles were introduced one at a time as the drama unfolded:

- 1) A facilitator
- 2) An inexperienced university-appointed student welfare officer role
- 3) A university bureaucrat role
- 4) A newspaper reporter role

A numbered summary of the key features of the scenario is provided in the Appendix. The facilitator introduced himself to the group and invited them to enter the role as members of the Student Welfare Advisory Panel (SWAP). Their task would be to advise the inexperienced university-appointed student welfare officer how to deal with a set of complaints. SWAP's role was close to the students' own area of expertise (student life) and provided a safe platform for their participation in the scenario. The facilitator gave SWAP the following background information (by reading aloud):

*"Motor racing fans arrived at Gordon House (student accommodation) late on Friday night claiming they had been invited to a party by student residents. Noise and alcohol consumption occurred, they were asked to leave by some residents, an argument developed, security was called, and it escalated and police became involved. No arrests were made, the incident seemed over; however, some residents complained and the new student welfare officer was asked to investigate the complaints."* (Document 1)

SWAP's initial task was to present to a newly appointed student welfare officer the problems of student life associated with such incidents. This initiated a

discussion and prioritisation of the problems associated with student housing which utilised both their real world expertise and the “reported incident.”

The simulation began with the SWAP members introduced to the new student welfare officer (Sue) and they discussed the issues they had prioritised. She listened to their advice and confided in her inexperience in the newly created position. An out-of-role discussion then occurred as to the authenticity of the simulation responses.

The simulation resumed with Sue presenting an escalation of the issue to SWAP and an explicit request for assistance. Sue went on to explain that although she was inexperienced she was keen to address this complaints and that she would like SWAP to think about how she might go about dealing with it. She read out the following complaint:

*“Dear Sue, I am writing to say how upset we are about the behaviour in the residence the other night. It was a lot worse than people treated it and two of the girls in my corridor are really upset. They felt threatened and abused and are scared it is going to happen again. We want to know what the university is going to do to prevent it happening again. If we can't get a good answer we will have to move out of residences, as it is too dangerous to be here. My father was very upset about what happened and is going to write to the Vice Chancellor about it. Something has to be done. Can a group of us see you tomorrow to discuss this problem? Sincerely, Kate Larsen.” (Document 2)*

Sue left the room and the facilitator then urged SWAP to consider ways of dealing with the incident, and to advance ways that the university might officially respond to the complaint. They also considered a report filed by the university security officer concerning the incident, which gave further disturbing insight into the situation (read out aloud by the facilitator), which said in part:

*“A residential tutor explained that she had asked the men to leave the premises several times, on each occasion she and other students had apparently been verbally abused by the men, and they had ignored her requests to leave. It appeared that a small number of students were also arguing with the residential tutor that the men should be allowed to stay.” (Document 3)*

The scenario moved forward in time two days and the issue had escalated further. Two of the girls involved in the incident were reported to be in counselling and the father of one had written to the local newspaper complaining about non-professional advice from the university, implicating SWAP. The local newspaper

wished to publish a story and requests were made for an interview with the student group about the incident.

SWAP prepared for the interview by consulting a member of the team in role as a university bureaucrat, who took a legalistic approach and pointed out that within the regulations of the university the student group was responsible for any advice. SWAP was also informed at this point that the student welfare officer blamed them for providing bad advice and had taken stress leave.

The tension escalated as the group then had to face a team member in role as an aggressive newspaper reporter looking for a headline. They were protected in this situation by the facilitator, who used the dramatic convention of ‘hot-seating’<sup>1</sup>, to get them to justify their position. However, the students were acutely aware of the likely negative outcome of the interview with the press and made strong efforts to clarify/justify their involvement when it occurred.

At the end of the scenario research participants were debriefed (see Appendix 1 for underlying scenario structure). They were then asked to complete a self-report questionnaire. The questionnaire contained two lines of inquiry related to: (1) Realism, Educational Function and Individual Activity and (2) Specific Skills. It took around 15 minutes to complete. Questions included a variety of items such as 5-point Likert scale ratings, yes/no items and open-ended questions.

## Results

The experiment provided both quantitative and qualitative data. As mentioned above, we report on two lines of questioning.

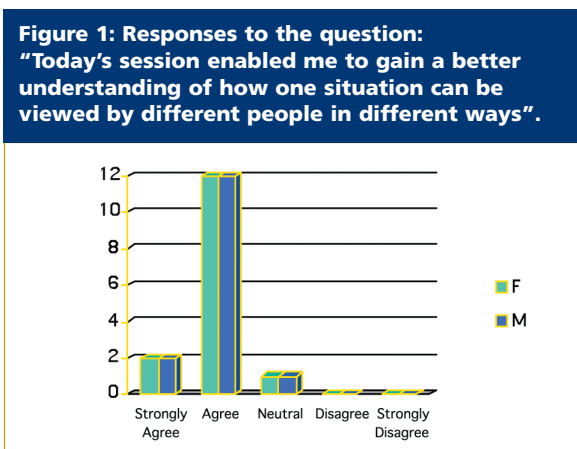
### Realism, educational function and activity of individuals

A total of 100% participants agreed (on a yes/no basis) that the exercise reflected, at least to some degree, events/roles/outcomes that might actually occur in real life. The average rating regarding the realism of the task was 2.17/5 (with 1 indicating ‘very realistic’ and 5 indicating ‘very unrealistic’). We performed an independent samples t-test and found no significant differences between male (mean of 2) and female (mean of 2.3) ratings of realism ( $t(28)=1.22, p=.228$ ). We also performed a one-way ANOVA and found no differences in the degree of realism for each group (mixed vs. male-only vs. female-only) ( $F(2,27) < 1$ ).

<sup>1</sup> Hot seating: The group, working in an assigned role as enquirer, has the opportunity to question one of its members role-playing a character in the simulation. The “hot seated” role is drawn from within the group who takes on a specific character role provided by the simulation. The exploration of this role allows a transfer and sharing of knowledge from within the dramatic structure.

When asked (on a yes/no basis) whether the session enabled an understanding of what it is like to make difficult decisions under pressure, 97% responded 'yes' (1 male responded 'no').

When asked whether the session enabled an understanding of how one situation can be viewed differently by different people, 93% of participants agreed or strongly agreed (mean of 1.93/5 with 5 indicating 'strongly disagree'). These results are displayed in Figure 1. The same pattern of responding was seen across males and females. A one-way ANOVA showed there were no significant differences in responses elicited across the groups (mixed vs. male-only vs. female-only) ( $F(2,27) < 1$ ).



Interestingly, there was no correlation between ratings of realism and ratings of whether participants gained an understanding of how a situation can be viewed differently by different people ( $r(30) = .137, p = .471$ ).

When asked (on a yes/no basis) whether certain individuals dominated the task, 60% of the mixed group, 80% of the male-only group and 100% of the female-only group responded 'yes'. These results do not provide evidence of a male tendency to exhibit individual acts of dominance.

An open-ended question asking how the session helped to gain an understanding of decision-making under pressure resulted in two clear themes: (1) the effectiveness of including a media presence to build tension and (2) the effectiveness of the session in terms of appreciating others' perspectives. Exactly one third of responses used terms that related to reporter/journalist/media and 20% of responses used terms related to others' opinions/group work/co-operation. There did not appear to be any gender differences in the kinds of responses. Of the other kinds of responses that emerged to this open-ended question many appeared to relate to the benefits of being able to *experience the consequences* of decision-making:

- "Experience and hence understanding." (1-1)
- "The consequences of seemingly harmless actions/decisions." (1-2)

- "...Had to think quick and make decisions on the spot." (1-3)
- "Understanding the source of pressure and finding ways to counteract or minimise the pressure or conflict." (1-4)
- "Seeing what happens if you make the wrong decision in a high pressure situation." (3-8)
- "Seeing how not being clear can misconstrue situations." (3-10)

### Specific skills addressed

Our questionnaire contained 13 questions about specific skills related to group-based crisis communication. The items are linked to some of the low-level core competencies utilised by the Australian Defence Force in their training of Public Affairs personnel. The data are displayed as percentages per gender per question in Table 1. The opening line was "I felt today's session encouraged me to..."

**Table 1: Specific skills related to group-based crisis communication**

	Male		Female	
	Yes	No	Yes	No
Communicate verbally	87	13	100	0
Communicate non-verbally	33	67	47	53
Communicate with external people (eg welfare officer/bureaucrat/reporter)	87	13	93	7
Give and receive instructions	100	0	67	33
Take part in group discussion	100	0	93	7
Prepare written notes	53	47	60	40
Contribute to team activities	100	0	93	7
Share knowledge and information within my group	100	0	100	0
Give and receive support within my group	80	20	87	13
Identify and review information	80	20	100	0
Analyse information	100	0	93	7
Recognise individual differences amongst members of my group	87	13	87	13
Respect individual differences	87	13	87	13
<b>Overall Average</b>	<b>85</b>	<b>15</b>	<b>85</b>	<b>15</b>



The general trend was that the session appeared to effectively tap in to these specific skills. It is perhaps not surprising that this task was not particularly effective in encouraging non-verbal communication. The overall average response rates for males and females were the same—within both males and females an average of 85% of participants responded 'yes' to these questions and an average of 15% responded 'no'. Responding across males and females was identical on three items: "Share knowledge and information within my group", "Recognise individual differences amongst members of my group", and "Respect individual differences". An interesting male-female difference that emerged was on the item "Give and receive instruction" where 100% of males agreed that the task tapped these skills compared to only 67% of females.

## Discussion

There has been no previous empirical investigation of the effectiveness of role-based applied drama methods in the context of crisis management and, to our knowledge, no previous work examining possible gender effects during group-based crisis communication training. We are also unaware of any previous attempt to measure the perceived individual benefits in terms of specific communication skills during applied drama. Effectiveness training in crisis communication requires decision making under pressure within competing priorities. The immersive nature of drama provides this tension in a way other exercise-based forms find difficult to simulate. It is also an effective training approach as the dramatic frame provides a cost effective approach to the assumption of operational roles when compared with a more overt physical reconstruction of the crisis scenario.

The current study addressed all of these elements in a role-based protected environment. The study provided both quantitative and qualitative data. In short, our results demonstrated that applied drama scenarios are perceived to be realistic, enable an understanding of what it is like to make difficult decisions under pressure and shed light on how a single situation can be viewed very differently by different people. There did not appear to be any gender differences associated with these findings and we found no evidence of a male tendency towards individual acts of dominance.

In their open-ended responses, participants noted, in particular, the effectiveness of utilising a media role to build tension and that they had gained greater awareness of others' points of view during the session. Other responses mentioned the benefits of being able to learn about the consequences of decision-making. Using a list of 13 questions related to specific communication skills, participants were asked whether

they felt they had, as an individual, been encouraged to use these skills during the session. The clear trend was for participants to report having been encouraged to use these skills during the session. Responding was consistent across males and females especially on three questions related to sharing knowledge and information within the group, recognising individual differences and respecting individual differences.

Taken together, these results suggest that applied drama methods can make a valuable contribution in crisis communication training. The effectiveness appears to be generalisable to both men and women. These results should be seen as preliminary as they are based on a modest sample size. In addition, the exercise utilised newly formed groups without prior crisis management training, was fairly unstructured and did not involve high-risk decisions. It is possible that other populations (e.g., experienced crisis managers) and other kinds of scenarios (e.g., involving potential loss of life or property) might produce different results, particularly with regard to gender. However, there appears to be clear potential for the methods reported here to deliver a realistic/educational training experience that enhances basic communication skills in a safe environment.

## Appendix

The underlying structure of the scenario:

1. A pre-text of information concerning a latent but emerging crisis containing information of varying levels of reliability is provided
2. Participants are enrolled in dramatic attitudinal role within a positive help situation, to aid a full-role performer with a crisis and demand for action
3. An emotional connection to the task and the full-role is gradually built via coaching from the facilitator
4. Role-based improvisation ensues (with assistance of documents)
5. Participants bond and engage in problem solving discussion but are also given opportunities for individual responses
6. Initial success leads to presentation of higher level crisis (increasing tension)
7. Gradually, less role protection is provided by the facilitator and the participants must respond to more complex demands
8. Tension escalates further and the potential for negative consequences increases as the group prepares delivery of media response
9. Media interview probes the group's weaknesses and/or negative consequences of some of their decisions.

## References

Alexander, D 2004, 'Cognitive mapping as an emergency management training exercise', *Journal of Contingencies and Crisis Management*, vol. 12, no.4, pp.150-159.

Bolton, G 1984, *Drama as Education: an argument for placing drama at the centre of the curriculum*, Longmans, London.

Bowell, P & Heap B 2002, *Planning Process Drama*, David Fulton, London.

Carroll, J, Anderson, M & Cameron, D 2006 *Real Players? drama, technology and education*, Trentham, Stoke on Trent.

Courtney, R 1968 *Play, Drama and Thought*, Cassell, London.

Garrett, M McMahon, M & Widdis, A 2008 *Serious games for defence training: Using the location and scenario training system to enhance the spatial awareness of trainee submariners* SimTect 2008, viewed 20 February 2008, [www.simtect.com/2008](http://www.simtect.com/2008).

Gundel, S 2005, 'Towards a new typology of crises', *Journal of Contingencies and Crisis Management*, vol.13, no.3, pp.106-115.

Karakowsky, L & Elangovan, A 2001, 'Risky decision-making mixed-gender teams: Whose risk tolerance matters?' *Small Group Research*, vol. 32, no.1, pp.94-111.

Kent, R & Moss, S 1994, 'Effects of sex and gender role on leader emergence', *Academy of Management Journal*, vol.37, pp.1335-1346.

Mabry, E 1985, 'The effects of gender composition and task structure on small group interaction.' *Small Group Research*, vol.16, no.1, pp.75-96.

Marincioni, F 2001, 'A cross-cultural analysis of natural disaster response: the northwest Italy floods of 1994 compared to the U.S. midwest floods of 1993' *International Journal of Mass Emergencies and Disasters*, vol.19, no.2, pp.209-236.

Nicholson, H 2005, *Applied Drama. The gift of theatre*, Palgrave Macmillan, Houndmills.

Haseman, B 1991, 'Improvisation, Process Drama and Dramatic Art', *The Journal of National Drama*, July 1991, pp.19 – 21.

Heathcote, D 1969, 'Dramatic activity' *Drama, English in Education*, vol. 3, no. 2.

Heathcote, D 1991, *Collected writings on education and drama*, Northwestern University Press, Evanston, Ill.

Leigh, E, Mason, T & Clynick, G 2007, *Using Simulation in a Training Environment*, SimTect 2007, viewed 20 February 2008, [www.simtect.com/2007](http://www.simtect.com/2007).

Ryan, M-L 2001, *Narrative as virtual reality*, John Hopkins University Press, Baltimore.

Slade, P 1954, *Child Drama*, University of London Press, London.

Shaffer, D W 2006 *How Computer Games help Children Learn*, Palgrave Macmillan, New York.

Turkle, S 1995, *Life on the screen: identity in the age of the internet*, Simon & Schuster, New York, NY.

Wood, W, Polek, D & Aiken, C 1985, 'Sex differences in group task performance', *Journal of Personality and Social Psychology*, 48, pp.63-71.

## About the authors

**Dr Joanne Arciuli** specialises in cognitive science. She has undertaken research at Macquarie University, University College London, Cornell University and Charles Sturt University. She currently holds a position at the University of Sydney. She is part of a team of researchers who are working with the ADF on an ARC-Industry grant to explore crisis communication. [jarciuli@usyd.edu.au](mailto:jarciuli@usyd.edu.au)

**Dr John Carroll** is Associate Professor in Communication Research at Charles Sturt University, Australia. His research area is mediated performance and drama and role, focusing on the relationship between production and performance. Other research interests include the areas of dramatic role and online/television performance as well as computer gaming. [jcarroll@csu.edu.au](mailto:jcarroll@csu.edu.au)

**David Cameron** lectures in journalism and social media at Charles Sturt University, Australia. He also coordinates postgraduate journalism studies. His research areas include Generation-Y learners, mobile media and digital game based learning. [dcameron@csu.edu.au](mailto:dcameron@csu.edu.au)

