

Behavioural Pliancy Acquired Among Multicultural Participants in Omani Institutions through the BARNGA Simulation Program

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The impact of intercultural simulations and training are rarely studied in diverse cultural environments in Middle Eastern countries. Ethnic groups in these areas are predominantly Muslims and are strict with the dictates of their religion. This study concentrates on the effectiveness in achieving intercultural socialisation by deploying the BARNGA simulation program in intercultural environments existing in educational premises of the Oman region. For this, a group of diverse participants from an academic environment were exposed to the same program, and the program success was analysed by comparing the participant's attitude and skills before and after the BARNGA simulation. The participant's psychological development throughout the various stages of the program was also scrutinised. The article concludes by examining the effects and credibility of conducting such simulation and the imminent benefits in deploying intercultural training for creating a better educational experience in a diverse cultural environment like those existing in Oman.

Key words: *DMIS, BARNGA, Simulation, Cultural Shock, ICT, Middle East.*

Introduction

Multinational integration in the education sector has woven its way for intercultural shocks and clashes all over the world. Acquiring intercultural competence has become more important, especially in the education sector where students and teachers of different cultures, morals and principles have to interact with each other day to day (Barnatt, Andries D'Souza, Gleeson, Mitchell Viesc, & Wery, 2020). The inability to settle among the rest of the student associates in a differential cultural society can be depressing and may adversely affect the quality of

education that can be achieved (Kirikkaleli, Ertugrul, Sari, Ozun, & Kiral, 2020; Latif, Latif, Farooq Sahibzada, & Ullah, 2019). The students may tend to become elusive over these differences, in turn affecting their grades. Hence, it has become necessary to psycho-logically recognise the aspect of intercultural compliance for successful academic interaction and for developing social and cultural skills (Barnatt, et. al., 2020).

Simulations have been used across the globe as a means of improving intercultural competencies and socialising skills, and for making sure the participants are capable of dealing with future requirements (Hallinger, & Wang, 2020). According to Donahue and Parsons (1982 p. 361), “intercultural simulations help in acquisition of the intercultural skills necessary for overcoming the misunderstandings that arise in a multicultural society”. These misunderstandings may arise as a result of ignorance, preconceptions, fear of differences, and intolerance to a differential cultural society (AFS, 2017). Cross-cultural simulation games such as BARNGA, Emperor’s pot, Bafa Bafa, & ACIREMA have been used in other parts of world but not in Arab nations for college students and faculty members as training for those going to a diverse atmosphere.

In accordance with Fantini (1997), simulations also facilitate educators in “Teaching English to Speakers of Other Languages (TESOL)” to explore the interlink and bonding among language, intercultural activities, and culture (Farrell, Baurain, & Lewis, 2020). Intercultural training (ICT) through BARNGA simulation can help develop skills to manage the reaction to change, cultural differences and understanding the rules existing in the new environment that differs from their native atmosphere. According to Sisk (1995:81), "simulation games provide interactive opportunities to practice new behaviours and experiment with new attitudes and points of view in a nonthreatening, non-judgmental environment". ICT could thus help students and lecturers to socialise more effectively and avoid unwanted misunderstandings by building intercultural competence (Luque, Vilela, Ordoñez, Gómez, & Dauder, 2020). The objective of this pedagogical study is to analyse and explore the adaptability and benefits of deploying BARNGA simulations in Omani institutions for developing intercultural competency among students and lecturers.

Literature Review

Although a number of studies on intercultural communication and simulations are available in Western countries (Barnatt, et. al., 2020; Kirikkaleli, et al., 2019; Hallinger, & Wang, 2020”), such efforts are absent in Middle Eastern Countries, where perhaps it is mostly required due to the extremity in cultural clash (Croucher, Sommier, & Rahmani, 2015; Latif, et. al., (2019). The effectiveness of ICT simulations was never measured methodologically in these areas (Müller, Denk, Lubaway, Sälzer, Kozina, Perše, Ojsteršek, 2020). ‘Intercultural simulations’ are identified as instructional activities among participants of different cultural backgrounds in

order to train oneself for intercultural encounters” (Fowler & Pusch, 2010 p. 96). In past studies, Cohen, Paige, Emery, & Hoff (2005) and Vande Berg, Balkcum, Scheid, & Whalen (2004) depict a thorough approach of intercultural growth in the education sector, representing a history of the approach.

A study that included IDI as a method of measuring effective simulation was previously done by Vande Berg et al. (2004), which took into account students that studied abroad and those who study in their home country, concluded that the intercultural competence is way advanced in those who study abroad than the later set of students due to 'cultural mentoring'. In their study, Vande Berg et al. (2004) also observed that among the students who studied abroad, the greater intercultural gain was for females. Hofstede & Pederson (1999) and Wiggins (2012) introduce culture as a new element for role profile in simulation games. These studies concentrate mainly on presenting full-synthetic culture profiles and the respective sources from which it was derived. They also concentrate on how these profiles can be incorporated in behavioural games so as to make participants experience and reflect the cultural clash and relate the same to real-life experiences.

Sandra and Margaret (2010), in their review on intercultural simulation games delve into the history, efficiency and conceptual bases of simulation games. Further, the review probes into the existing usage of simulation games, where and when they are being used concentrating mainly on United States (Holländer, Schellenberg, & Butz, 2020). Various contexts where the simulation games were used for instructional purposes in fields like corporate, US peace corps, foreign service, medicine, education, business, diversity training and various other contexts was also detailed (Holländer, et. al., 2020). The paper analyses the goals and benefits in deploying such games for cross-cultural interaction, how people deal with such situations and various intensity factors of intercultural contacts. The study concludes by shedding light on some future aspects and technological adoption in simulation games.

Polyakova (2015) conducted research on the effectiveness in introducing intercultural factors to develop communicative skills in foreign language learning. The attitude development for socialising in different cultural environments through role playing and business simulations was also evaluated as part of the main study. Analysis was done on the basis of observations, individual interviews, testing and comparison. The study concludes on the effectiveness in business simulations among the participants and the interactive technologies that aids students to study a foreign language. Apart from the above study and research done by Hinkelman, (1995), there is very little methodological study of such intercultural simulation games done in the education sector globally or in the Middle East.

BARNGA is a card game that illustrates the differences inherent in people from different cultures even though they appear similar (Hofhuis, Schilderman, & Verdooren, 2020). As

implied by Sivasailam Thiagarajan who introduced it in 1980 during his work for USAID in GBARNGA Liberia, it demonstrates the ability of assumptions of cultural similarity to cause misunderstandings and initiate conflict (Thompson, 2019). Thiagarajan writes, “Serious conflicts arise not from major, obvious cultural differences, but from unrecognised, minor ones” (Thiagarajan, 2006). This implies that it is a simulation activity developed for variety contexts of intercultural awareness-raising programmes, bringing participants to the realisation that despite many similarities, people of differing cultures have different perceptions (Thiagarajan, 2006). These differences must be understood in order to avoid clashes and ensure effectiveness when functioning in a cross-cultural group. Utilising the BARNGA simulation program with students in Oman, this study intends to investigate and expose the importance of deploying simulation games in Middle Eastern educational institutions.

Materials and Methods

Some prerequisites and piloting were done before starting the simulation program among the selected participants. Their willingness to participate in the simulation was considered and confidentiality was ensured. In the next step, the procedure for data collection and analysis was concluded. The data obtained during the study was methodologically analysed to check the extent to which simulation have really helped to improve a participant’s perception, when exposed to an indifferent cultural background. The entire analysis was done in such a way to provide an original approach of quality data.

Participant Selection

Students and lecturers from Omani institutions were invited to participate in the BARNGA simulation program. From the interested subjects, the selection of participants for this study was done randomly so as to obtain a sample as a representative of the general population (Omar, 2014). These participants were then categorised into three basic groups: Students who nurture their future education abroad (Group-A); Students who plan to carry out their future education within the country of Oman (Group-B); and Professors/ Lecturers who work within the country of Oman (Group-C). All these groups participated in the BARNGA simulation process and the follow up questionnaire sessions so that they could give reliable feedback of their perception on intercultural competence. Group-A consisted of thirty participants whereas, Group-B had twenty-nine participants of mixed gender. All these participants study different courses at the institution and vary in age and nationality. For Group-C, there were twenty-one lecturers of mixed gender and nationality.

Data Collection Strategy and Organisation

Two different methods of data collection were used for the study. A set of carefully sorted yet simple questions with clear and accurate interpretations was refined to examine the perception of the participants of Group-A and Group-B. The questionnaire was prepared in both Arabic and English, so that the participants could select their comfortable language. Literature for preparing the questionnaire was based on the guidelines provided by Oppenheim (1992), Lumsden (2005), Dornyei (2003), Cohen, Manion and Morrison (2003).

For Group C, the data was collected through Focus Group Interviews (FGI). Ijaz and Muhammad (2013) consider FGI as a valuable tool that yields efficiently valid and reliable quality data. This was carried out in the English language, since it was the common language among the lecturers. Hence, the overall data collection was multi-lingual. The FGI questionnaire was prepared so as to prove the benefit in promoting effective collaboration among professors from diverse cultures in Omani institutions through BARNGA simulation. Since the FGI participants were all experienced lecturers, none of them showed any kind of reluctance in discussions.

Bennett's Development Model of Intercultural Sensitivity (1993) (DMIS) was used as a framework for collecting data and evaluating the impact of BARNGA. Since DMIS was designed by the theory that "cultural awareness is accompanied by improved cognitive sophistication" (Cushner, McClelland, & Safford, 2012, p.155), it can effectively explain the reactions of people related to cultural differences after each game session. The stages of DMIS are divided into six orientations, which is a continuum that ranges from ethno-centric to highly ethno-relative. The three ethno-centric stages are Denial, Defence and Minimisation, while the three ethno-relative stages are Acceptance, Adaptation and Integration. "Each stage in DMIS describes a cognitive structure that is communicated through attitudes and behaviours" (Bennett, 2011 p.113). This is a universally acceptable method for everyone as they progress through cross-cultural sensitivity. The questions intended for data collection was ordered systematically as the participants' progress through each stage of DMIS. This in turn eased the flow of understanding the purpose of simulation among the participants as the game session proceeds. This also catered logical arrangement of data for future analysis.

Moreover, Intercultural Development Inventory (IDI) (Pedersen, 2010) was used for the qualitative evaluation of the data. 50 items (paper and pencil/ online) incorporated the IDI instrument. "It measures five of the six major stages of DMIS along with a separate factor identified as 'encapsulated marginality', named cultural disengagement".

Intercultural training via BARNGA simulation

All participant groups were requested to participate in separate simulation programs at a different time and place. The contemporary question was the participants consent to mingle with both genders during the simulation. This question was necessary because the dominant religion in the region is Islam, which barely encourages mixed company outside the family. It was observed that almost 96% of Group-A participants were fine with such socialisation while only less than half the participants of Group-B students complied with this requirement. All of the Group-C participants admitted to this requirement. The difference in opinion among Group-B participants led to the division of participants into two separate classes for simulation. The first class consists of participants who agreed to be in mixed company, and the second class were gender specific.

Each game-group had five to six participants each. Five Tricks card game with different set of rules was used for the BARNGA simulation game which guaranteed a scenario with miscommunication and misunderstandings. BARNGA is a tournament which starts with different card game rules at each table (Hofhuis, et.al., 2020). It was developed by Barbara Steinwach and was first published by the Intercultural Press in 1990 after Sivasailam Thiagarajan used it in the early 1980s for his research study. After the initial five minutes to get associated with the given group-specific instructions, the game began on a non-verbal basis. The facilitator supervised the entire game and took necessary notes on the happenings around each set of groups.

After each game session, the winner from each group was advised to move up one table, while the loser was advised to move down one table, in order to maintain the number of participants in each group. The confusion at each table was increased as the rules were different at each table from the rules that the newcomers follow. “Some participants may accommodate their rules to make it easier for immigrants; whereas, at other tables, they may preserve their original rules and defend their perception” (Fowler & Pusch, 2010 p.97). The participant that decides to quit the game was given the role of observer. The facilitator interrupted the game session upon noticing a high level of frustration around the participants or when most of the participants have moved around different sets of the game-group. The participants of the game had to “tie the present, the future, and their skills, values, and knowledge together to make the ongoing situation relevant and useful” (Sisk, 1995, p. 88).

After each game session, all participants were encouraged to come back to a single group for briefing and data collection. After the first couple of minutes required for settling down the frustration level, a thorough debriefing was done to cement the training and already prepared questions were asked to the participants. The questions were previously arranged so that it feeds each stage of DMIS reciprocally and, the initial questions were prepared with the

guidance of Steinwachs's Manual (1990, p. 25). The data collected via questionnaire was categorised according to Dornyei (2003, p.8) into three types including 'factual', 'behavioural' and 'attitude' of which the simulation study utilised only 'behavioural' and 'attitude' type of data. This was used to evaluate the opinion, attitude and values of the participants after each debriefing session. Only the participants who matured each stage of DMIS were considered to go on to the next respective stage.

For Group-C, the data collected through FGI helped to triangulate the questions used for Group-A and Group-B participants. Previously prepared sets of questions were used to stimulate the interview that eventually led to discussion that fed the study with relevant data. The facilitator stimulated the discussion from time to time and no single participant or group of participants were allowed to dominate, thus encouraging continuous contributions from all the participants (Flick 2009:195). The interview was directed to inspect whether the simulation can improve the collaboration between the lecturers of different cultures. All the data was concurrently audio-recorded for future analysis.

Data Analysis

Learning in simulation games is simultaneous (Raybourn, 1997, p. 20). Figures 1 and 2 and Tables 1 and 2 show the percentage of participants from Group-A and Group-B characterisation through Bennett's six stages of DMIS. The relevant data collected from each session was properly interpreted, categorised and then applied to the main characteristics of Bennett's (1993) DMIS framework to link the changes in cognitive structure to participant's perceptions toward different cultures. Data collected from Group-A and Group-B participants was used to examine the acceptance and handling capability with intercultural diversity. The systematic analysis thus spread across five of six stages of DMIS starting from denial up to integration. Data collected through FGI was analysed in accordance to Gilham (2000) and Walford (2001).

Table 1: Percentage of Group-A Participants' Characterisation over Bennett's DMIS Stages

DMIS Stages	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Denial	60	34	6	0	0
Defence	59	35	6	0	0
Minimisation	53	47	0	0	0
Acceptance	53	35	12	0	0
Adaptation	43	49	8	0	0
Integration	47	53	0	0	0

Table 2: Percentage of Group-B Participants' Characterisation over Bennett's DMIS stages

DMIS Stages	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Denial	21	21	21	16	21
Defence	47	37	11	5	0
Minimisation	58	32	10	0	0
Acceptance	50	42	3	5	0
Adaptation	32	47	16	5	0
Integration	53	42	5	0	0

Figure 1. Behavioural Characterisation of Group-A Participants over DMIS Stages
BEHAVIORAL PLIANCY ACQUIRED VIA BARNGA SIMULATION

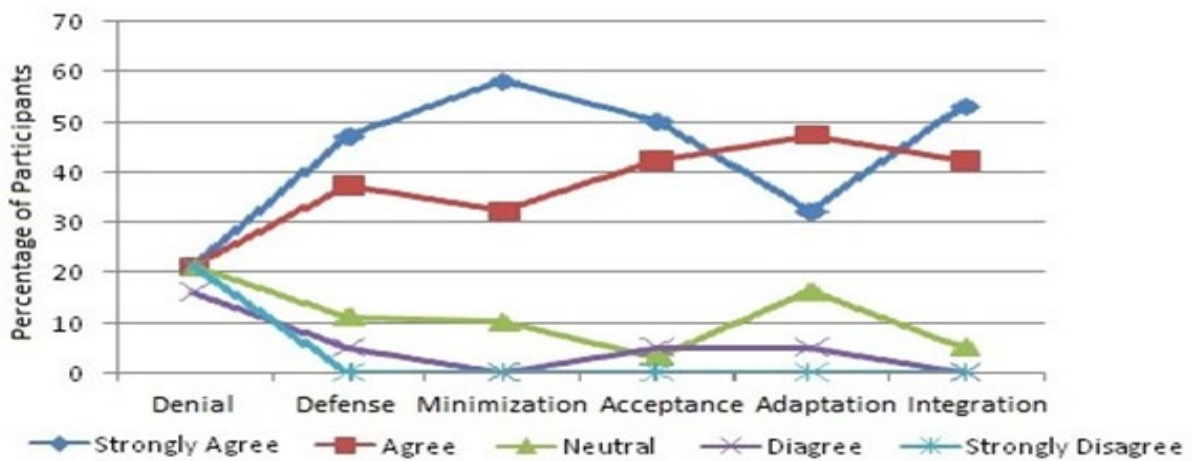
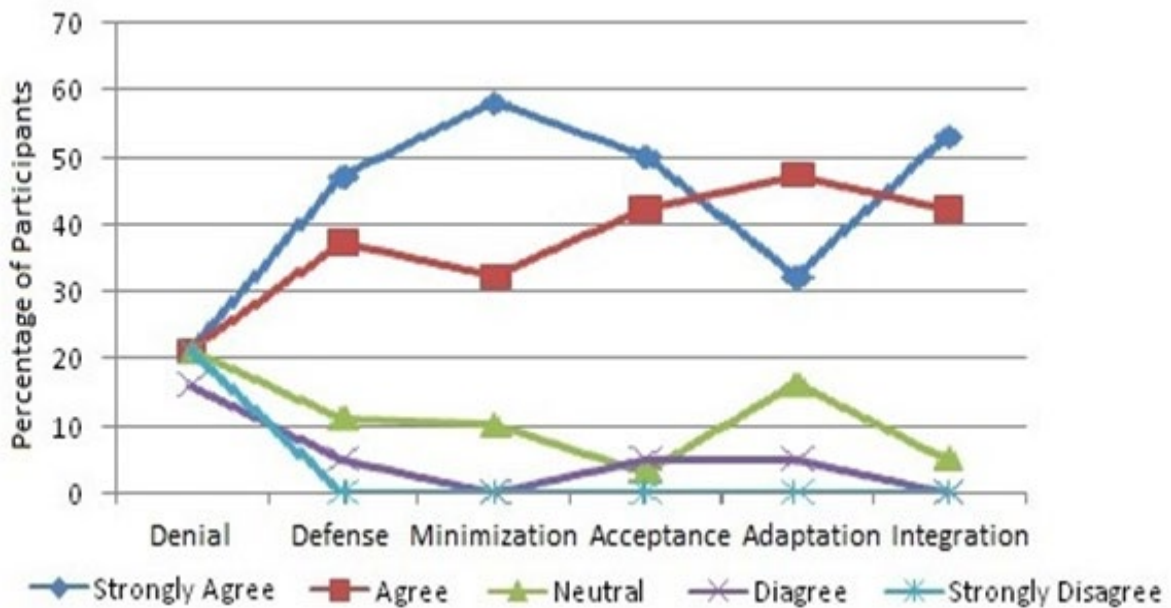


Figure 2: Behavioural Characterisation of Group-B Participants over DMIS Stages



Results and Discussion

The denial for mixed company simulation among some of the participants itself can be considered as proof of the lack of intercultural competence and differential perception. The first stage, 'Denial' of DMIS, showed a clear mental barrier for deeper intercultural understandings among the participants. During the session, it was evident that the participants gave emphasis to their respective home country values and little support was given to the foreign culture. There was limited consciousness among the Group-A and Group-B participants about the need for interactive competence among the diverse participants. Group-B participants exhibited more reluctance in breaching social barriers so as to mingle with the expat students of a different culture. Group-A participants seemed comparatively compassionate in socialising with the same. Group-C participants have effectively conquered this stage and have already progressed to the next level.

Analysing the 'Defence' stage of DMIS, the participants started to consider opinion and judgment of others also. By understanding the difference between the members of the game group, the participants started to become aware of the existence of cultural differences. Of all the participants, 59% of Group-A participants and 47% of Group-B participants strongly agreed that they have begun to understand the difference in opinion and judgments with others from various cultures. However, each participant still considers their respective native culture to be highly superior. The Group-C participants also showed considerable development in this stage of development. One of the strong points discussed during FGI was how the home culture of the expatriates always becomes weak in front of the native dominant culture, and how they are compelled to adapt themselves according to the new environment. This sense of superiority of the respective home culture among the participants while understanding the need to accommodate themselves to the new culture concurrently shows development from the second stage 'Defence' to the third stage 'Minimisation' of DMIS.

At the 'Minimisation' level, participants from Group-A and Group-B became aware of the situation where it is possible to have differences even between those who belongs to the same cultural background. 53% of Group-A participants and 58% of Group-B participants strongly agreed that they had become capable to accept the social differences between others in a diverse environment. All Group-A and Group-B participants agreed that they have now grown to become comparatively compassionate towards differences in educational ethics and, methods of undertaking tasks that exists among fellow students from different cultural backgrounds. Most of the Group-C participants also shared the same opinion as they began to understand the reason why they have to adjust, even when they shift between different organisations within the same country.

By the end of the session, various past experiences were also discussed, and the participants had developed a deeper understanding by recognising the similarities that prevailed within the distinction between the cultures, paving way to the fourth stage ('Acceptance') of DMIS. The participants had developed better understanding, and there was an appreciable change in perception towards the evident cultural differences characterising the 'Acceptance' stage of DMIS. In spite of the fact that the participant's awareness was developed about the cultural differences that exists between various social groups, they still had difficulty in pointing them out. Now, the participants can associate freely with people from other cultural backgrounds. However, the participant's response also showed a reluctance to leave their own comfortable group. The Group-A and Group-B participants began to appreciate, understand and value differences in study habits, like varying attitudes towards the punctuality that exists between themselves and other socially different students.

All of the Group-A participants complied that the simulation helped them to understand the difference in values of foreign countries while 92% of Group-B accepted the same. Still, 5% of the Group-B participants conveyed that they still couldn't understand the foreign cultures to the full extent and 16% remained neutral. The simulation seemed to have coached critical thinking among most of the participants, and they started to feel responsible for their outlook on other cultures. Group-C participants during FGI showed active improvement in intercultural acceptance levels and showed a more sophisticated level of intercultural understanding. The participants who were capable of progressing from Bennett's fourth stage to the fifth stage were analysed to reveal, that the participants at that point of time gained the skill required to positively behave towards others with different values and culture. There was a visible flexibility in the attitude towards varying culture. Simulations proved successful in giving an insight into the different educational environment and expectations they should cultivate while going abroad.

95% of Group-B participants and all of the Group-A participants agreed to this. They had developed the understanding that there is no right or wrong in a situation of cultural difference. By adaptation, not only the participants can accept the difference but also, they can understand those differences fully. By Integration level, students can move fluidly between cultures and can evaluate more than one cultural frame. All the remaining participants agreed that simulations helped them to understand the change in rules and values they have to encounter when moving abroad, or when facing a foreign fellow student. The participants now understand that everyone has his/ her own cultural follow up.

Analysing the Behavioural Progress in Participants after BARNGA Simulation

For analysing the success rate of BARNGA simulation, behavioural enhancement among the participants that aids in effective intercultural socialisation was evaluated. The skills that were

measured among the participants were: Skill-A: Ability to perceive the difference in various education systems positively; Skill-B: Appreciate foreign rules and values; Skill-C: Reduced sense of superiority for native culture; Skill-D: Improvised communication methods; Skill-E: Politeness and refined social behaviour; Skill-F: Better understanding under distinct circumstances; Skill-G: Ability to compare and contrast a different culture and understand its characteristics; and Skill-H: Improved intercultural competence. Table 3 shows the percentage of Group-A and Group-B participants that have cultivated the skills which are essential for intercultural competence after the BARNGA simulation.

Table 3: Skills Developed among Group-A and Group-B Participants after the BARNGA Simulation

Skills	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	A	B	A	B	A	B	A	B	A	B
GROUP										
Skill A	47	53	53	42	0	5	0	0	0	0
Skill B	59	53	35	32	6	15	0	0	0	0
Skill C	29	37	53	37	18	21	0	5	0	0
Skill D	59	27	26	39	8	24	7	8	0	2
Skill E	29	34	53	23	18	38	0	0	0	5
Skill F	38	27	54	44	8	29	0	0	0	0
Skill G	59	39	35	44	0	17	0	0	6	0
Skill H	41	47	53	32	6	21	0	0	0	0

It was evident that the participants developed enough skills to make them competent to evaluate others from their frame of reference (Bennett, 1993). The student participant's perception revealed that the majority of Group-B participants and all of Group-A participants had developed skills required for facing the cultural shock under differential circumstances. The denial of some Group-B participants to join the game in mixed company itself was evidence of inter-cultural incompetence existing among the students in Oman. The analysis showed that Group-A participants were more adaptable to intercultural competence during simulation when compared to Group-B participants. This may be because the Group-A participants must have already self-pruned to face similar situations which they will surely encounter abroad.

The program helped the Group-A participants to develop personalised learning that helps to anticipate and plan for challenges they may face when they move abroad. This may help them focus and ease their experience of study. This also pointed towards the need for psychological acceptance training for students, so as to make them able to balance between cultural competence and religious values when the situation arises. It is equally important to grant students who aspire to study abroad with pre-departure training programs. Participants of Group-C also accepted that they have developed important aspects required to face the cultural shock when they have to face colleagues or students from a different culture.

It was observed that all the participants accepted that they can now understand the difference that exists in an education system under various organisations. Everyone seemed to accept the fact that every place has its own culture and had started to respect it. A noticeable disagreement among the participants was in the development of communication skills in a foreign society. The simulation taught the participants the importance of effective non-verbal communication to overcome the difficulty when suddenly faced with a foreign language (Sisk, 1995). After the simulations the participants now understood that good observation, body language, face expressions, signs and gestures can contribute to communication.

Results show that a small percentage (5%) of Group-B participants continued to maintain the sense of superiority of their native culture. The majority of Group-B participants stayed neutral, 38% developed politeness and refined social behaviour while 53% of Group-A participants agreed on this. All the participants of Group-C suggested that the simulation could have helped them avoid embarrassing situations that they faced due to inappropriate mannerisms because they failed to understand the local community. 54% of Group-A participants and 42% of Group-B participants agreed that they have now developed better understanding under distinct circumstances.

Participants from Group-C conveyed that simulation helped them realise why they are misunderstood during the early days of joining new institutions. 59% of Group-A participants strongly agreed that have developed the ability to compare and contrast different culture and understand its characteristics, while 6% disagreed. 44% of Group-B participants strongly agreed on developing the ability to compare and contrast different culture and understand its characteristics. Group-C participants were more confident that they can appreciate foreign students and make them more comfortable during classes. Participants accepted that the sense of native cultural superiority and false judgment will not affect them in understanding foreign cultural values after the simulation.

There was a considerable positive change in attitude of participants after the simulation. There were a higher percentage of participants that could understand the cultural differences and handle such requirements in a more sophisticated way. The majority of the participants confirmed that the simulation helped them to learn how to deal with differentiated situations when there is a difference in opinions and judgment. 53% of Group-A and 43% of Group-B strongly agreed on this statement. The exception was Group-B where 11% disagreed completely that simulation could be of considerable help. It was observed that these are mostly the participants who denied mixed company during simulation.

It was evaluated that this may be because of failure in developing cognitive knowledge as the rest of the participants due to absence of full diversity conflict during the game that was necessary to create a micro-world that could simulate real life conflicts (Sisk, 1995). This bias



among male and female participants challenges the level of evaluation. All participants in Group-C, where data was collected through FGI, approved that the simulation helped them to have an improved perception on the diversity that exists among the colleagues.

Conclusion

This paper investigates the impact of intercultural simulations in diverse cultural environments existing in the Middle East, using Omani institutions as a case study. Intercultural simulations help in the acquisition of intercultural skills needed to address the misunderstandings that arise in a multicultural society. These misunderstandings may arise as a result of ignorance, preconceptions, fear of differences, and intolerance in a differential cultural society. There are several Cross-cultural simulation games used to train students moving to an environment with diverse cultures alien to them, but this study employs the use of the BARNGA simulation. Findings reveal that BARNGA simulation is beneficiary for building better integration between students of different cultures. Participants agreed that the simulation program improved their capability to accept the social differences between others in a diverse environment. They state that they have become comparatively compassionate towards the disparity that exists in educational ethics, and mode of handling tasks among fellow students from different cultural backgrounds. The BARNGA simulation program helped students to develop a deeper understanding of their colleagues by exposing the similarities that prevails between distinct cultural backgrounds. The simulation now inspires the participants to follow body language, facial expressions, signs and gestures when they have to face language barrier situations. It also enhances the emotional flexibility of the student, enabling him or her to accept unfamiliar behaviour and values. Thus, it can be concluded that the BARNGA simulation has indeed proved advantageous to educational institutions in Oman.



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