

Elinza Pretorius

Research Article Title:

**An Exploratory Study of the Use of Improvisation Games in Enhancing
Student Engagement**

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AN EXPLORATORY STUDY OF THE USE OF IMPROVISATION GAMES IN ENHANCING STUDENT ENGAGEMENT

Abstract

Prompted by troubling statistics of student throughput and dropout rates in South Africa, the problem of engagement is a key focus in this study. Three types of student engagement were attempted by exposing students to improvisation games in a tertiary environment. The research was conducted within a post-positivistic paradigm using survey questionnaires to determine the level of stimulation and engagement that improvisation offered respondents (Killen, 2010). The data was analysed according to categories that disclosed perceptions and definitions, and gauged levels of behavioural, emotional and cognitive engagement (Mahatmya, et al, 2012; Halverson et al, 2013; Fredericks et al, 2014). The results of the research found that students experienced improved levels of engagement, teamwork and enjoyment of the learning environment when exposed to improvisation games.

1 Introduction

Within South African higher education there is a need to engage students to stimulate the graduation of a new echelon of academics (Sapa, 2008). Increased enrolments in institutes of higher education (HEIs) do not result in a higher number of successful graduates, in effect creating a “revolving door” syndrome of high dropout rates (Essop, 2012). Although there are multiple factors that could be attributed to the poor throughput rate, this research study focuses on engagement. Student engagement is linked to motivation and forms a vital part of retention, determination, completion and accomplishment needed to obtain a tertiary qualification (Hillman, 2005; Viljoen & Deacon, 2013). There is evidence that student engagement can be stimulated through alternative teaching and learning practices (Kuh, Kinzie, Cruce, Shoup & Gonyea, 2008; Strydom, Mentz & Kuh, 2010; Govender, 2012; Ivala, Gachago, Condy & Chigona, 2013).

Against this background, this research study explores the effectiveness of using improvisation games as a tool for increasing student engagement. Studies in the use of improvisation games as an educational tool have proven results of improved collaboration and communication as well as the fostering of inclusive learning environments (Sawyer, 2004; Huffaker & West, 2005; Becker, 2012). As a teaching tool, improvisation has the potential of engaging students by reflecting Gardner's theory of multiple intelligences (MI), rendering the learning content more accessible to a larger number of students (Davis, Christodoulou, Sieder & Gardner, 2011, Gardner, 2011). In addition, marked improvements in self-efficacy and self-determination are consequences of exposure to improvisation play (Cawthon, Dawson & Ihorn, 2011) and are all contributing factors to the motivation students experience in engaging with their studies (Strydom et al, 2010; Zepke & Leach, 2010; Viljoen & Deacon, 2013).

2 Description of the problem

South African HEIs pride themselves in grouping students from multiple ethnicities, cultures, backgrounds and languages. These tertiary institutes must contend with declining resources, inadequate funding, overcome language barriers and deal with the pressures of increased accountability and quality assurance (Strydom et al, 2010). In addition, the goals set in achieving transformation by the White Paper (DoE, 1997), the Council on Higher Education (CHE, 2004) and the National Development Plan (NPC, 2013) serve as a benchmark for HEIs to follow.

Problematically, low graduation rates are indicative of the inability of the higher education system to support and produce successful graduates (Scott, Yeld & Henry, 2007:19; Sapa, 2008; Strydom et al, 2010; HESA, 2014). Statistics released by Higher Education South Africa (HESA) note that 35% of students dropped out after their first year, 20% dropped out after the second or third year, and only 15% completed their degrees within the allocated time frame (Sapa, 2008; Strydom et al, 2010; HESA, 2014; SASSE, 2015). Scott et al, (2007) state that decisive action is required to improve educational outcomes, institutional conditions, curriculum reforms, funding and the development and improvement of teaching approaches (HESA, 2014).

Wawrynski, Heck and Remley (2012) suggest that there is a clear relationship between student engagement and student success. Continual research undertaken by the Indiana University for Postsecondary Research provides convincing findings that engaging students, especially from minority and previously disadvantaged groups, fosters successful graduates (Strydom et al, 2010). The South African Survey of Student Engagement (SASSE) has gathered “data of engagement” in hope of improving the quality of teaching and learning in HEIs (UFS, 2012, SASSE, 2015). The survey’s aim, then, is to explore the possibility of improving student engagement.

3 Analysis of Literature

3.1 Student Engagement

In the academic setting, the relationship between the student and the HEI is central to the concept of engagement. Kuh (2003) states that student engagement is linked to the time and energy students invest in educationally purposeful practices at an HEI (Kuh et al, 2008). Although institutions are responsible for creating learning environments, students are accountable for making use of provided resources to advance their own academic progress (Krauss & Coates, 2008).

Research on engagement has revealed multiple variables that may advance or hinder student engagement: the impact of family background and precollege education, the institution’s structure pertaining to mission, size, accessibility and affordability, administrative support, self-efficacy and an understanding of the syllabus (Harris, 2008; Kuh et al, 2008, Trowler, 2010).

Fredericks, Blumenfeld & Paris (2004) have taken the multidimensional concept of engagement and classified student engagement into three categories: behavioural, affective (emotional) and cognitive (Harris, 2008).

Behavioural engagement

Students who are behaviourally engaged comply with behavioural norms such as class attendance and involvement in social and extracurricular activities (Harris, 2008, Trowler, 2010). Within the micro-environment of the classroom, behavioural engagement refers to physical involvement such as verbal interaction, listening and active participation (Trowler, 2010; McRae, n.d.).

Affective Engagement

Affective engagement is defined as the connection classmates experience among each other together with the educator through collaboration and support as a group (Strydom et al, 2010; Beard, Clegg & Smith, 2012). Emotionally engaged students would typically experience heightened levels of interest, enjoyment and a sense of belonging (Trowler, 2010).

Cognitive Engagement

Cognitive engagement relates to the process of learning or acquiring knowledge (Archambault, Janosz, Morizot & Pagani, 2008). It denotes intellectual growth of students who make connections to prior knowledge and synthesise new meaning through analysis, discussion and reflection (Peterson & Taylor, n.d.).

3.2 Improvisation

Originating from theatrical training and theatre sports, improvisation activities have infiltrated training environments as diverse as airline facilitation, business management, medical training and psychological treatment (Huffaker & West, 2005; Lobman, 2005; Ballon, Silver & Fidler, 2007; Boggs, Mickel & Holtom, 2007; Daly, Grove, Dorsh & Fisk, 2007; Hanley & Fenton, 2007; Albornoz, 2011).

Improvisation is a process of fabricating stories, scenes, relationships and characters that are unscripted, spontaneous, immediate, and bound to the collaboration between participants (McKnight & Scruggs, 2008; Smith & McKnight, 2009). Improvisation's main outcome is to create new meaning collectively through supported risk-taking where participants experience a non-judgemental space of creation (Halpern, Close & Johnstone, 1995; Sullivan, 2010; Becker, 2012). The usefulness of improvisation in an educational context has not gone unnoticed. Songunro (2004) describes it as a fast and effective pedagogical technique found to be the most teachable method in developing desired skills, attitudes and presenting content. Students exposed to improvisational activities gave positive feedback, accounted for an improved awareness of listening and responding, and reported better group communication and creative thinking (Sawyer, 2000, 2004, 2011; Boggs et al, 2007).

3.3 Key Definitions

3.3.1. Improvisation Games

Improvisation can be defined as the skill of thinking on your feet, discovering answers and adjusting oneself accordingly in a collaborative group environment (Johnstone, 2007). For the purposes of this research article, an improvisation game refers to the activity developed according to the rules of improvisation in which students are active participants in spontaneously directing and creating situational content.

4 Research Methodology and Design

4.1 Research Methodology and Research Paradigm

The research methodology used in this article is rooted in a quantitative approach. Since quantitative research functions in a structured format that calculates responses and feedback into numerical information, it evaluates the experience of improvisation activities objectively (Hinckley, 2005; Du Plooy-Cilliers, Davis & Bezuidenhout, 2014). Subsequently, respondents' experiences have been translated into measurable variables that are presented in this article as statistical data (Punch & Oancea, 2014).

In conjunction, the research is conducted from the prism of the post-positivistic paradigm. Post-positivism is grounded in a scientific approach to research, in that data is logically obtained and analysed without bias (Mackenzie & Knipe, 2006, Cronje, 2014). O'Leary (2004) describes post-positivism as a world view that considers reality to be equivocal, flexible and numerous as interpreted by the individual (Maree, 2012). As improvisation is contextual, this approach allows for the interpretation of subjective reactions in an impartial manner (Taylor & Medina, 2013).

4.2 Research Design and Data Collection

A cross-sectional research design is time-specific in obtaining a snapshot of the population during the study (Kumar, 2014). Respondents participated in a 50-60 minute lesson in which four classic improvisation games were introduced and played (Johnstone, 2007; McKnight & Scruggs, 2008; Gee & Gee, 2011). After completing the activities, respondents were given a questionnaire to complete in a controlled environment to support the validity of the data collection (Du Plooy et al, 2014). As a standardised research instrument, the questionnaires were cost-effective, accessible, uniform, familiar and relatively unobtrusive for the participants (Fox & Bayat, 2007; Du Plooy-Cilliers, 2009; Maree, 2012).

Ten questions were chronologically sequenced into categories: elaboration on prior experience of improvisation, views on teaching strategies, ratings of engagement levels and the opportunity to provide opinion.

The bulk of the questionnaire consisted of closed-ended questions, with only a small amount of open-ended questions incorporated for in-depth responses. Because closed-ended questions serve to structure the responses according to yes/no categories, multiple choice

and Likert scale ratings, the use of predetermined answers means that data can be easily quantifiable and manageable (Maree, 2012; Du Plooy et al, 2014:153). However, if a respondent is restricted by predetermined choices, a selection may be made based on availability rather than opinion (Maree, 2012:160; Kumar, 2014:185). To overcome this potential negative effect, open-ended questions have been included, allowing for personal opinion and expression (Maree, 2012:161). The coding of open-ended data is more challenging as opinions may be divergent and unquantifiable (Maree, 2012:161; Kumar, 2014: 186). Thus, content analysis is applied where the main themes are identified according to the respondents' descriptions and ordered into statistical information (Maree 2012:102; Newton & Rudestem, 2012; Kumar, 2014: 297).

4.3 Research Population and Sampling

This research's population consists of a group of millennial students enrolled in a one-year higher certificate programme in a private HEI. Academically, higher certificate students are completing a bridging course towards entering a degree (Van Zyl & De Weerd, 2015). As internal studies have shown poor performance in theoretical modules, a History Design class was sampled for this study as it would most likely benefit from improved student engagement (Van Zyl & De Weerd, 2015).

Millennial students share certain attributes that make them ideal for this study: a preference to experiential learning through inductive discovery, ease of group collaboration and social interaction, emotional availability and curiosity (Monaco & Martin, 2007; Howe & Strauss, 2007; DiLullo, McGee & Kriebel, 2011). All of these traits are required and focused upon in improvisation theory and games (Berk & Trieber, 2009).

Using non-probability convenience sampling, a sample group was selected to participate. Accessibility, geographical closeness and familiarity with the respondents served as motivators for selection (Fox & Bayat, 2007; Maree, 2012; Kumar, 2014). A total of 20 students gave their signed consent. However, due to low class attendance only 15 students participated in the study. This diminished the sample size of the group but did not hamper the final results.

4.4 Ethical Considerations, Validity and Reliability

The matter of ethics was considered as participating students gave their voluntary and informed consent without any promise of incentive and could withdraw from the study at any time (Fox & Bayat, 2007; Du Plooy-Cilliers et al, 2014). The researcher conducted the study in a safe and controlled environment, reported honestly on data collected and kept the information collected confidential (Kumar, 2014; write.com, 2015).

4.5 Limitations Applicable to the Research

The exploratory study was isolated to a specific sample group and therefore the findings cannot be generalised. Further restrictions included the study's limited time frame and the number of available student's. Cognisance of each individual's interpretation and experience must be taken into account (Hohmann, 2005). Some students may be too shy to engage and may find the idea of group play intimidating. Students with no interest in participation will display lower levels of engagement from the outset. Outside factors that influence the students' emotions prior to the session cannot be controlled or predicted and may be a limitation to the level of engagement (Weimann, 2015).

5 Data Analysis and Discussion of Findings

As the aim of data analysis is to determine the level of engagement experienced by respondents, the information gathered from the questionnaires has been interpreted and presented according to four categories. A description of each category follows, with an analysis of each question and a discussion on the findings.

5.1 Category 1: Previous Exposure and Perception of What Improvisation Is.

The first category serves a dual function of introducing students to the nature of the questionnaire and to elicit background information concerning their past experience and perceptions of improvisation.

5.1.1. Question 1: Past Experience

The first question investigates whether students had any previous exposure to improvisation games. Figure 5.1.1 shows that the majority of students had been exposed to improvisation (67%), while a smaller group had never experienced similar games before (33%).

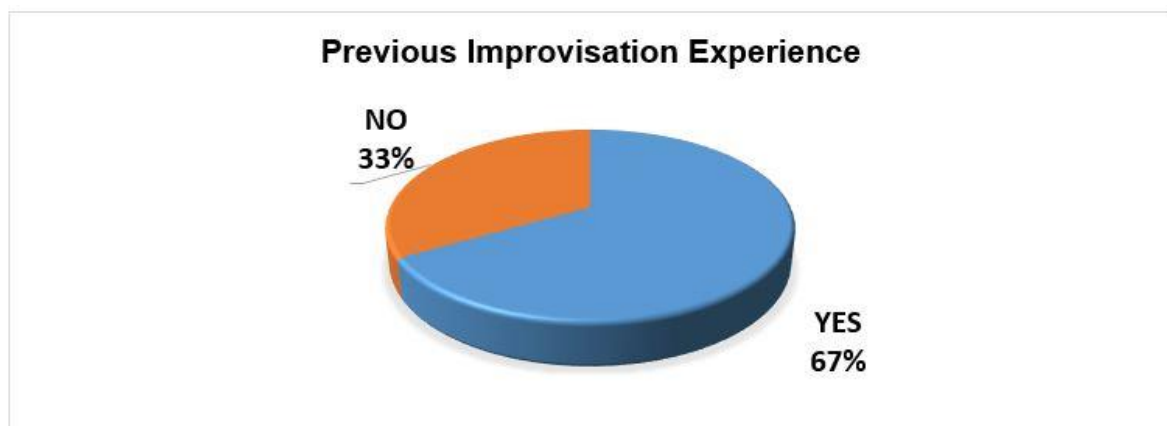


Figure 5.1.1: Previous improvisation experience

Although a large number of respondents answered that they had been exposed to improvisation gameplay in the past, the limitations of the study did not allow for closer inspection to the nature or frequency of their past experiences. In certain instances, familiarity with the nature of improvisation may result in higher levels of confidence (Johnstone, 2007; Becker, 2012, Schmidt, 2015) and may affect the respondents' approach to the games played.

Whether familiarity with improvisation gameplay benefited some students over others remains unclear and may serve as a starting point for future research.

5.1.2. Question 2: Definition of improvisation

The second question in this category determines how respondents define improvisation. Respondents were given a selection of four options from which they could select an answer. These include a description of improvisation as: “challenging and difficult”, “all about being funny”, “exciting and spontaneous” and “controlled with no freedom”. Only two of these options were selected and constitute the graph in figure 5.1.2.



Figure 5.1.2: How would you describe improvisation?

None of the respondents considered improvisation to be difficult, challenging or controlling. For the most part, the majority (80%) described the process as exciting and spontaneous, while 20% labeled improvisation as funny or comedic. The latter response can be attributed to improvisation being readily found in popular culture such as television and online content (Gee & Gee, 2011). Similarly, the essence of improvisation is based on spontaneous output, which is inherently exciting, unpremeditated and unusual, resulting in the selection of this option. (Spolin, 1999; Johnstone, 2007; Berk & Trieber, 2009).

5.2 Category 2: General Levels of Engagement.

The second category of questions focuses on determining the general level of engagement respondents felt with more traditional lecturing formats. Traditional formats are considered to be teacher-orientated in which classes are led through discussions, presentations or demonstrations by the educator (Kain, 2003; Jordan, Orison & Stack, 2008). These questions allowed the researcher to compare the respondents' experiences of these contrasting formats.

5.2.1. Question 3: Level of Engagement with Traditional Teaching-Centered Formats

Question 3 and 4 were framed within a rating system from very low to very high in which respondents could select the option they felt most accurately mirrored their opinion.

Figure 5.2.1 provides an overview of how respondents responded to Question 3 as it relates to their level of engagement felt with traditional lecturing formats. Twenty percent (20%) rated their engagement with teacher-centered environments highly, while 70% of rated their level of engagement as average, compared to 10% who gave low and very low scores for their engagement level with this lecture format.

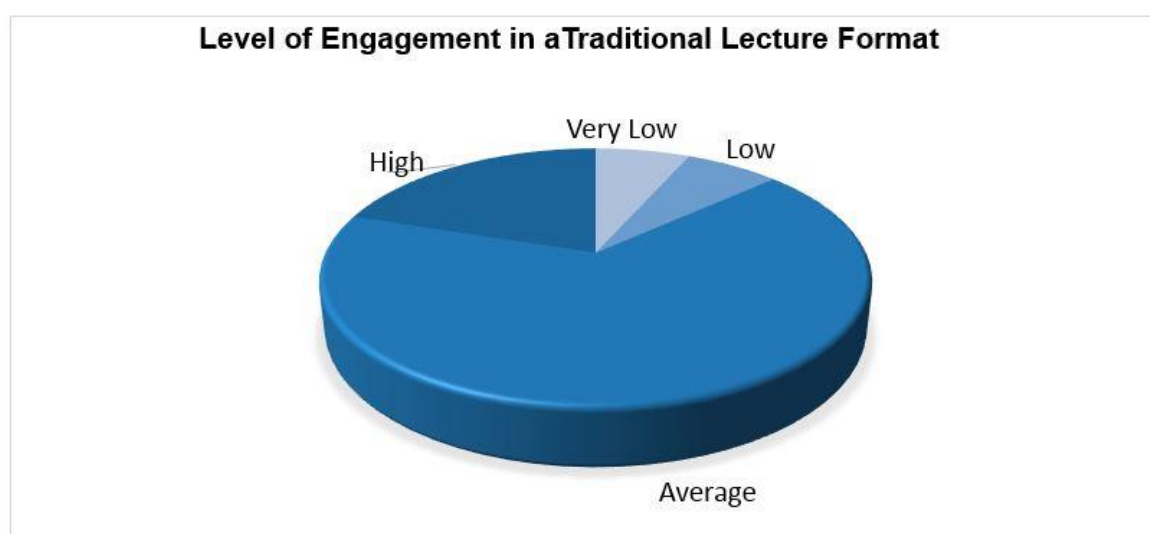


Figure 5.2.1: The level of engagement felt by students in a traditional lecturing format.

Educator-centered pedagogy is frequently understood as the use of the traditional lecture as the primary means of communicating information in the learning environment (Mascolo, 2009). This may in of itself be a limited view, as “effective instruction”, refers to teacher-led instruction that has been proven to be superior to student-centered approaches within the context of the subject taught (Schug, 2003). Considering the overwhelming practical nature of the certificate programme (80% practical, 20% theoretical) the bulk of learning is based in active participation and skill development (Van Zyl & De Weerd, 2015). As the majority of respondents scored their engagement in teacher-centered learning environments as average (70%), it is plausible that students are neutral on this mode of instruction due to their familiarity with it in basic education (Väyrynen, 2003; Motitswe, 2012). On the other hand, as most subjects are practical in nature, the sporadic exposure to this mode of instruction may also affect the level of engagement experienced. Admittedly 20% of students rated a high level of engagement and 10% a low level of engagement within this learning environment, which could be attributed to the strength of Gardner’s MI Theory experienced by the individual respondents (Gardner, 2011) or to past behavioural patterns and the construction of understanding (Jordan et al, 2008).

5.2.2. Question 4: Level of engagement with Improvisational games

The fourth question asked students to rate their general level of engagement experienced within the improvisation games lesson environment. The data collected is presented in Fig 5.2.2 and reveals that a collective 85% of respondents rated their experience as high or very high, with the remaining 15% rating their engagement as average and/or low.



Figure 5.2.2: Engagement levels felt with improvisation games

As contemporary educational pedagogy champions the implementation of more student-centered approaches, an emphasis is placed on allowing respondents to discover information and construct meaning through peer interaction (Stage, Muller, Kinzie & Simmons 1998; Sadker, Sadker & Zittleman, 2008; Berk & Trieber, 2009; Motitswe, 2012). The popularity of this approach dictates that teachers are responsible for creating such student-centered learning environments to facilitate this type of learning (Schug, 2003). As improvisational games are player-centered or in this case student-centered and rooted in team work and collaboration, the positive response from the majority of respondents indicate that a higher level of interest and engagement was reached than in teacher-centered learning environments.

5.3 Category 3: The Three Levels of Engagement.

The third category consisted of three main sets of questions that comprise of sub-questions relevant to the types of engagement experienced during the improvisation games. Questions within this category were asked using a Likert Scale, where students could rate their experience from 1 (strongly disagree) to 5 (strongly agree).

5.3.1. Question 5: Behavioural Engagement

As previously stated, behavioural engagement is associated with student involvement in learning tasks and their positive conduct and physical contribution to classroom dynamics (Trowler, 2010; Halverson, Woodfield, Graham & Henrie, 2013). Sub-questions were asked to determine whether students felt physically stimulated, whether they felt an increase in verbal and listening engagement and if they felt encouraged to work in groups.

Figure 5.3.1 illustrates the respondents' responses towards each of the three sub-questions.

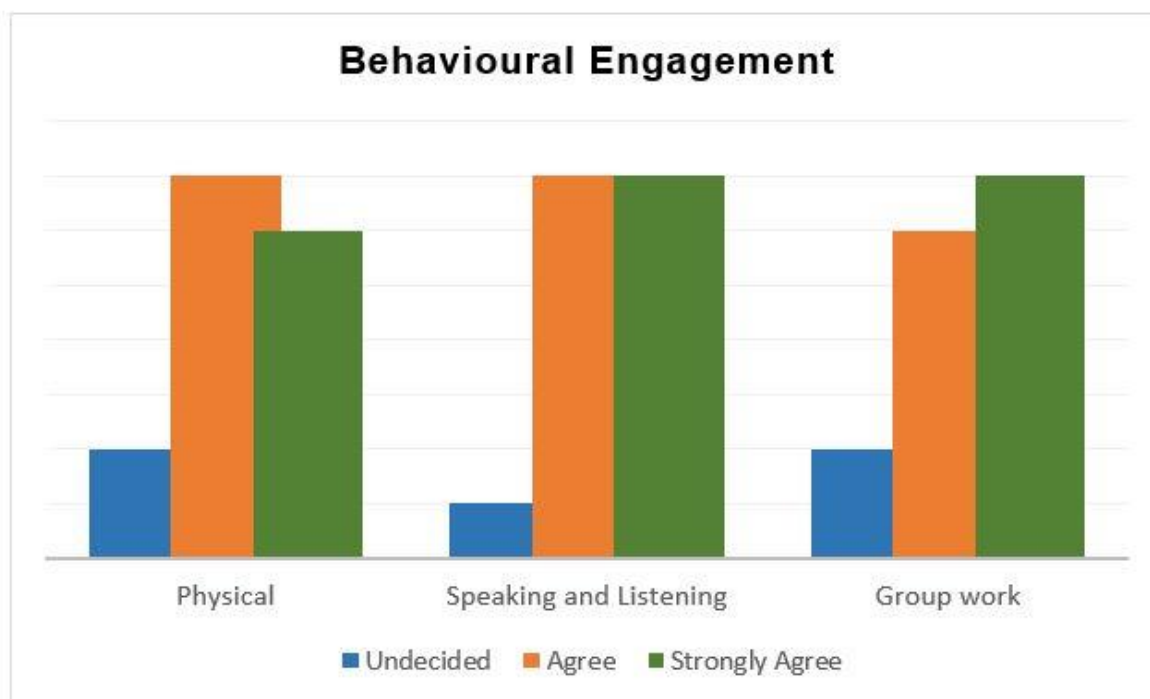


Figure 5.3.1: The levels of behavioural engagement

The majority of respondents “agreed” (47%) or “strongly agreed” (40%) that improvisation games gave them the opportunity to respond to the lesson more physically, while 13% remained undecided.

When asked whether their speaking and listening skills were engaged further, the respondents “agreed” (47%) or “strongly agreed” (47%), with 6% staying undecided.

Finally, determining whether the respondents engaged more with their peers while working together, 13% were undecided while 40% “agreed” and 47% “strongly agreed”.

Focusing on the question of engagement, the findings indicated that there was a marked shift and improvement in the respondents' behavioural engagement. Incorporating Gardner's MI Theory, the capacity of humans to process information through seven autonomous channels can be linked to engagement (Gardner, 2003, 2011; Davis et al, 2011). Physically affecting engagement and participation among students stimulates the body-kinesthetic intelligence of body awareness and hands-on learning in addition to the interpersonal intelligence of interacting and learning from others (Gardner, 2003' 2011; Berk & Trieber, 2009). Active learning offered in group settings, the fostering of peer relationships and the development of social skills play an integral part to engaging students (Zepke & Leach, 2010).

5.3.2. Question 6: Affective Engagement

Affective engagement is defined as the relational experiences respondents have with their peers, educators and the study content (Beard et al, 2007; Strydom et al, 2010). To that end, emotional ties are created and if positively reinforced, an increased commitment and effort in academic enterprises can be felt (Mahatmya, Lohman, Matjasko & Farb, 2012; Fredericks et al, 2014). In this question, students were asked to rate their level of freedom to collaborate with others, their desire to be involved in the lesson and whether they found the lesson to be intriguing. Figure 5.3.2 summarises their responses.

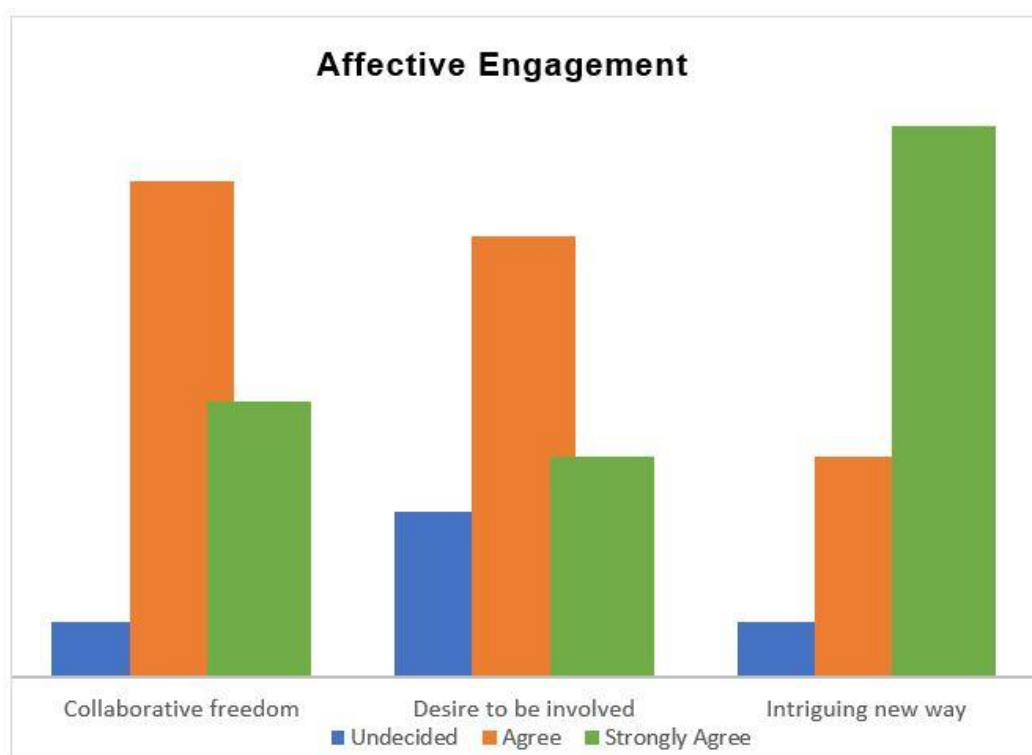


Figure 5.3.2: The levels of affective engagement

Sixty percent (60%) of respondents agreed that improvisation games allowed them to collaborate freely with others, while 33% strongly agreed and 7% remained undecided. The desire to engage with the improvisation lesson was rated with 27% strongly agreeing, 53% agreeing and 20% remaining undecided. The final question asked whether respondents felt the class was presented to them in an intriguing way. The overwhelming majority strongly agreed (67%) and agreed (27%), while 7% stayed undecided.

It can be ascertained that there was an increase in respondents' affective level of engagement. That respondents indicated they felt improved levels of freedom to collaborate is indicative of improvisation's ability to create autonomous environments in which feelings of competency and self-efficacy are enhanced (Zepke & Leach, 2010; Toshalis & Nakkula, 2012). The desire to be more involved in the lesson and the observation that the class was more intriguing, supports the intrinsic motivation to engage with learning as students are more likely to participate in learning that they find inherently enjoyable or interesting (Zepke & Leach, 2010; Mahatmya et al, 2012). As improvisation's nature is to play, there is a tendency to experience increased levels of pleasure and fun; even resulting in comedic results (Sawyer, 2004, 2011;

Berk & Trieber, 2009). Cornett (1986) elaborates on the use of humour in maintaining a positive classroom atmosphere or to redirect negativity. Askham (2008) notes that the emotional intensity of learning is often overlooked by educational practitioners, as the ability of learning to be enjoyable will influence the intrinsic nature of student motivation (Kahu, 2013). Critics of emotional engagement claim that students can still fail in education despite their emotional connection or feeling of belonging (Harris, 2008). The danger of making learning environments too pleasurable may under-prepare students for the working environment after graduation. Regardless of these factors, the affective engagement of students holds a powerful sway over the desire of students to participate in and engage with their own learning (Mahatmya et al, 2012; Kahu, 2013).

5.3.3. Question 7: Cognitive Engagement

Engaging students on an intellectual level requires open cognitive engagement that stimulates academic growth and learning (Mahatmya et al, 2012; Peterson & Tyler, n.d.). Respondents were asked to describe how the lesson had stimulated their thinking by linking to previous class content, their engagement with new ideas and whether they felt challenged to solve problems creatively. These findings are presented figure 5.3.3 below.

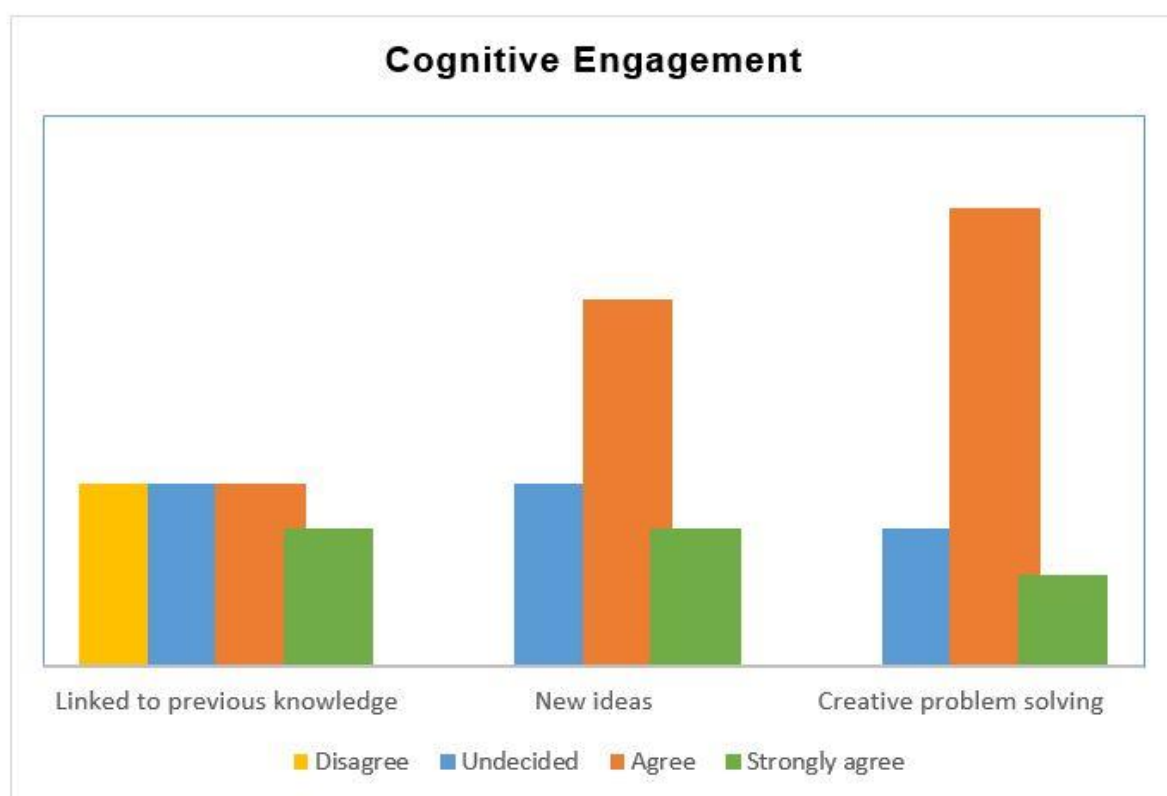


Figure 5.3.3: The levels of cognitive engagement

Students were asked whether they felt the improvisation games had effectively linked to their knowledge of the class content. Here responses were equally divided, with 26% of students disagreeing, 26% of students undecided, 26% of students agreeing and only 20% of students strongly agreeing. The next question asked whether the activities allowed for active engagement with new ideas and concepts, to which 27% were undecided and 53% agreed or

strongly agreed (20%). Asked whether students were challenged to find creative solutions to solving problems, 20% remained neutral and the majority either agreed (67%) or strongly agreed (13%).

Considering the stimulation of cognitive engagement, respondents were not convinced that improvisation successfully linked to prior knowledge of the coursework. Topics that related to the class content served as inspiration points for the improvisation games, but as the nature of improvisation is to spontaneously create, the topic would often be swept to the wayside amid the excitement of discovery. The ability to remain focused on a topic and repeatedly emphasise and explore a point is possible and has been observed in professional improvisation performances (Halpern et al, 1995; Goldstein, 2009; Sawyer, 2013). The lack of focus experienced in this session may be attributed to the unfamiliarity of working together as a learning strategy as compared to superficial entertainment (Crossan & Sorrenti, 1997; Crosson, 1998). As Crossan (1998) states, the bridging of theory and practice is achieved through continual exercise and exposure to improvisation. It is possible that respondents exposed to these particular games for the first time were not able to remain focused on discussing the content. Another possibility is that the games selected did not serve the content optimally. They may/should be interchanged or adjusted for future sessions.

Respondents agreed that they were stimulated to think in a different and creative way in order to come up with solutions to the game/problem, effecting once again Gardner's MI theory (2011). The majority of students felt stimulated to engage in creative problem solving. As stimulation to different thinking processes allows for a broadening of concepts, students who engage in problem-solving activities are more likely to make connections between ideas and previous experiences, resulting in deeper learning and deeper engagement (Zepke & Leach, 2010).

5.4 Category 4: Individual Feedback.

In the final category, respondents were asked to give individual feedback on the improvisation games and their experiences thereof.

5.4.1. Question 8: Rating of Games

Figure 5.4.1, a table, shows the ratings students gave each of the four games: Connections, Paint-a-Scene, One-word-at-a-time and Expert Interview. Respondents rated the games as most enjoyable, enjoyable and fairly enjoyable.

Figure 5.4.1: Table rating games played in improvisation lesson

Game	Most Enjoyable	Enjoyable	Fairly Enjoyable
Connections	10%	60%	30%
Paint-a-scene	15%	40%	45%
One-word-at-a-time	30%	45%	25%
Expert interview	70%	15%	15%

According to the data collected, 70% of respondents found Expert Interview the most enjoyable. The second most highly rated game was One-word-at-a-time (30%) with Paint-a-scene (15%) and Connections (10%) rated in third and fourth position as seen in figure 5.4.2.

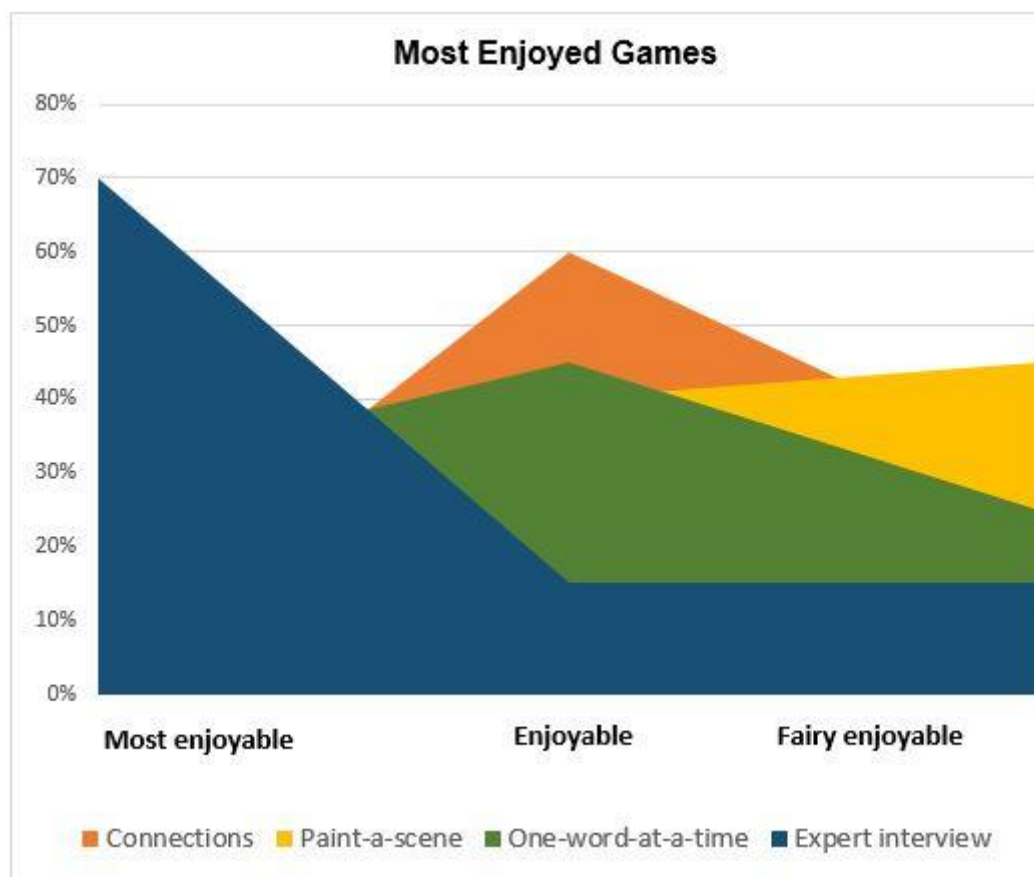


Figure 5.4.2: Rating of Games

The games selected were ordered from low to medium risk to build levels of trust, confidence and comfort. The first game, Connections, is a low-risk, warm-up game that requires the participation of the whole group (Spolin, 1986, 1999; Hitt, 2004; McKnight & Scruggs, 2008). Due to its passive and collaborative nature, this game is seen as non-threatening. This may be the reason respondents rated the game as most enjoyable (10%) and enjoyable (60%). Only 30% of respondents found the game to be fairly enjoyable.

The second game, Paint-a-Scene, required students to become more physically involved with the environment by using their bodies to create group tableaux (Gee & Gee, 2011). The game develops body-kinesthetic intelligence, reflexes in spontaneous collaboration and supports a group attitude towards success (Davis et al, 2011; Gardner, 2003, 2011).

The third game, One-word-at-a-time, was well received among the respondents and asked participants to partner up. The premise of the game is to create a narrative with only one person allowed to speak one word at a time (Spolin, 1999). In this game students learn to collaborate without bias and to listen intently (Hitt, 2004). The game's high rating of enjoyment may be attributed to its personal nature.

Expert Interview splits the class into audience members and volunteers, providing the opportunity for students who lack confidence to sit out the activity. This game is considered to be an excellent format in which listening and speaking skills, as well as collaboration and creativity, are practised (Hitt, 2004; McKnight & Scruggs, 2008).

5.4.2. Question 9: Open Responses

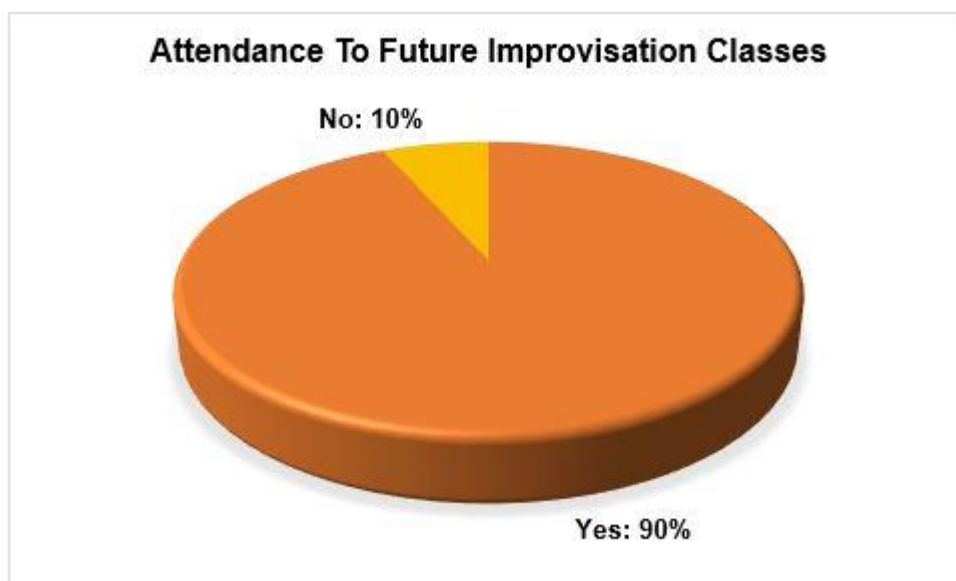
After analysing the positive comments, the following three subdivisions were created: the notation of enjoyment (excitement and fun), class and personal engagement, and reflection.

Figure 5.4.3: Table of positive feedback given.

Exciting and Fun	
Total	Examples of Comments:
29% of students said the following:	They (improvisation games) were intriguing, fun and enjoyable. It was (a) very fun and interactive way of learning that felt like playing. It allows a person to open up and enjoy the games. I think it was more fun than the normal lecture. The games are exciting. Fun stress helps me to remember things easily. It was good fun.
Participation with class	
Total	Examples of Comments:
46% of students said the following:	We could engage with peers we never get to do activities with. It helped me be more free and comfortable with my classmates. Reminded me that it is important to interact with others. All the people in the class participated. It was nice the fact that everybody participated. The class was engaged with the lesson. This could help students feel more comfortable with each other, even though the first time was nerve-wracking. Team work practiced quite well. It helped us be more social and connect with people easily. I even spoke to students whom I never speak to. I think all students in universities should play the improvisation games and they will understand each other well.
Personal engagement and reflection	
Total	Examples of Comments:
25% of students said the following:	It forces you to think on your toes creatively. The content was felt physically and you get to express yourself. That it should be done more often. It is a good way of expressing ourselves and to learn new things. It makes remembering things easier. It helps the shy ones come out of their shells. Next time I won't be so shy and I'll be able to think of exciting ways to come up with solutions to a problem faster and more creatively. In class some students fall asleep or are tired. Today in class it was different because the energy in the class was high.

Figure 5.4.3 gives detailed accounts of respondents' feedback. Twenty-nine percent (29%) of respondents commented that the improvisation session was fun, exciting, enjoyable and more engaging than the average lecture. Most notably, 46% of respondents commented on the positive experience of speaking to and interacting with other students for the first time, as well

as



feeling the positive energy of a whole class working together as a team. Commenting on personal engagement, 25% of respondents reported being less shy and more energetic. Some respondents said they were exposed to the content physically, which allowed them to understand the material differently.

Certain negative comments (see figure 5.4.4) were made in that some games were not as fun as others and that not everyone engaged equally. Some respondents felt nervous, while others were worried about other respondents taking the game(s) too seriously.

Figure 5.4.4: Table of negative feedback given.

Examples of negative comments
I would be worried that students may take it too seriously, even if it is a game and not so important.
Not everyone opened up equally when playing games.

5.4.3. Question 10: Future Interest

Finally, respondents were asked if they would be interested in attending more classes in which improvisation games would be used. Respondents answered positively, with 90% saying yes and 10% displaying disinterest.

Figure 5.4.5: Interest of students in attending future improvisation classes

6 Recommendations

It is clear from the positive feedback given that respondents felt more engaged with a classroom that offered an alternative approach to teaching and learning as experienced in the improvisation lesson. However, there are many more questions to be answered, and different paths for future study to be undertaken.

The varying degrees of success of the games used in the study calls for further analysis. The link of improvisation games to stimulation of student engagement must be further explored if the most suitable game to engagement is to be determined. Within the phrasing of question 8 for example, the focus on enjoyment to engagement (i.o.w. rating which games offered the most engagement) could have offered more value to this study.

The stimulation of cognitive engagement was relatively unsuccessful in comparison to other forms of student engagement and warrants further exploration. As this study was directed to a certain demography of students, it is recommended that the effectiveness of improvisation games be further explored with other respondents in different year groups and study fields. Future studies that measure the effects of long-term exposure to the improvisation format may reveal more information on the effectiveness of the strategy on student engagement and other fields of personal development.

Finally, as improvisation games have value to the educator, who may seek alternative strategies to improve respondent participation and present content in a different, exciting and engaging way, it is recommended that the training of educators in the facilitation of improvisation games be implemented, as it has the potential of a valuable and alternative teaching resource.

7 Conclusion

The research set out to determine the effectiveness of including improvisation games in the higher education classroom as a tool for increasing student engagement. The improvisation games were well received as respondents noted an increase in stimulation, interest and pleasure. But was student engagement optimally stimulated? Within the behavioural and affective dimensions of engagement, the answer is affirmative. As cognitive engagement was the least stimulated, there are more questions to be answered: did students struggle to make an intellectual connection because of the games selected, or is the nature of improvisation too sporadic and high-paced for meaningful intellectual engagement? There are more avenues to explore in the future studies directed towards the testing of different games and the prolonged exposure to improvisation games and environments.

Notably improvisation games effectively stimulated Gardner's multiple intelligences and it has the potential to be one of the most effective tools in maintaining not only the interest of the learner but the likelihood that information is retained and processed by a larger number of respondents (Berk & Trieber, 2009; Gardner, 2011). To this end, improvisation games have fulfilled their purpose. The question of student engagement and improvisation has only been touched upon here, and it is this researcher's opinion that there is much more to be learnt via future studies in the field.

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ANNEXURE A: QUESTIONNAIRE

Dear Student,

Thank you for taking part in this study.

The research undertaken is to investigate the effectiveness of implementing improvisation games within a higher education classroom environment as a tool to improve student engagement. You have been identified as a potential respondent as you have been part of the initial project to implement improvisational games in a Visual Literacy classroom.

It is entirely up to you whether you would like to participate but your responses would be valued and highly appreciated. Please note that you can withdraw from participating in this research at any time and will not be penalised for it. Your participation is completely voluntary.

All information will remain anonymous and the information gathered will be used for the purposes of this research only. When completing the questionnaire, please select the most appropriate answer and answer all the questions presented to you.

Thank you for taking the time to partake in this research study and for completing this survey.

Please feel free to contact me via e-mail if you have any additional questions about the research. Also note that you can contact me for more information on the findings, once the research has been complete.

Sincerely,
Elinza Pretorius
elinzaza@gmail.com

Questionnaire Instructions:

There are 4 categories in this Questionnaire. Please read through the questions carefully and answer all questions in all categories by selecting the most appropriate answer.

Category 1: So what is improvisation? (Check the box):

1. Have you ever been exposed to improvisation games before participating in this study?

Yes	No
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2. Select one description that best describe your understanding of what improvisation is: Improvisation is...

Challenging and difficult	
All about being funny	
Exciting and spontaneous	
Controlled, with no freedom	

Category 2: Views on teaching strategies (Circle your answer):

3. How engaged do you feel with the content of the lesson when it is presented to you in a traditional lecture (for example a lecturer standing in front of the class presenting a presentation while you take notes):

Very low	Low	Average	High	Very high
1	2	3	4	5

4. Reflecting on the study you participated in which you played improvisation games, how would you rate your overall level of engagement?

Very low	Low	Average	High	Very high
1	2	3	4	5

Category 3: Rate your experience of the improvisation games (Check the box):

Please rate your experience of all the improvisation activities and the teaching session, by checking the appropriate box numbered from 1 (strongly disagree) to 5 (strongly agree) for each statement made.

5. Describe how your behaviour changed within the classroom setting:

The improvisation games:	1 Strongly Disagree	2 Disagree	3 Undecided	4 Agree	5 Strongly Agree
a. Gave me the opportunity to physically participate in the lesson.					
b. Engaged my speaking skills and listening skills.					
c. Encouraged me to work together with my classmates.					

6. How would you rate the following?

The improvisation games:	1 Strongly Disagree	2 Disagree	3 Undecided	4 Agree	5 Strongly Agree
d. Allowed me to freely collaborate with my classmates.					
e. Increased my desire to be involved in the lesson.					
f. Presented the class in a different and intriguing way.					

7. Describe how the class stimulated your thinking:

The improvisation games:	1 Strongly Disagree	2 Disagree	3 Undecided	4 Agree	5 Strongly Agree
g. Linked to my knowledge of previous class content.					
h. Actively engaged me with new ideas and concepts.					
i. Challenged me to solve problems creatively.					

Category 4: Feedback related to Improvisation Games

8. Please indicate below which game you enjoyed the most (Check the box):

GAME:	Most enjoyable	Enjoyable	Fairly enjoyable	Not enjoyable
Connections				
Paint-a-scene				
One-word-at-a-time				
Expert Interview				

9. What feedback (positive/negative) can you offer about your general experience of the improvisation games you played?

10. Would you be interested in attending more classes in which improvisation games are used? Motivate your answer.

Thank you for participating in this research project!