Can Speaking Activities of Residents in a Virtual World Make Difference to Their Self-Expression?

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ABSTRACT

The purpose of this study is to search for any difference in self-expression of Second Life residents with different levels of shyness. For this purpose, we used sixty students from two fifth-grade elementary school classes. Thirty students were assigned to the high shyness group and the rest to the low shyness group. Each group completed pre- and post- self-expression tests. After six weeks of speaking activities in Second Life, the results indicate that self-expression scores increased for students in both the high and the low shyness groups. The low shyness group showed an increase by 1.00 in the self-expression score. However, the high shyness group showed an increase by 3.14 after the speaking activities. This result suggests that Second Life can be a good environment to enhance self-expression in students, especially those with degrees of high shyness.

Keywords

Shyness, Second Life, Virtual world, Self-expression, Speaking activities

Introduction

Shyness is the feeling of apprehension, lack of comfort, or awkwardness (Crozier, 2000; Carducci & Golant, 1999) experienced when a person is in proximity to, approaching, or being approached by other people, especially in new situations or with unfamiliar people. So, shyness can hinder people’s performance in many aspects of life. It can make people reluctant, make them afraid, or even create negative feelings toward others. In return, this causes those involved to feel even more shy and to blame themselves. In these situations, if others insult or coerce them, they may feel anger or become critical of others (Bortnik, Henderson, & Zimbardo, 2002). In classrooms, student shyness can result in students saying nothing and not expressing themselves. In addition, shyness is found to have a negative correlation with school achievement, undermining school achievement (Jeong, 1997). What’s more, shyness triggers various problems such as depression, low self-esteem, low social and emotional adjustment, and low self-efficiency (Shin, 2002; Yoo & Park, 2007; Lee, 2005). Shyness has become correlative with having a low self-esteem (Crozier, 1995), as most withdrawn people see interaction and active lifestyle as pointless. It should not be surprising that shyness is associated with a host of negative adjustment outcomes, including internalizing problems (e.g., low self-esteem, loneliness and anxiety) and poor school adjustment (Arbeau, Coplan and Weeks, 2010).

In particular, what stands out among shy students is that they are unwilling to express themselves. This is evident in a number of studies focusing on the effect of self-expression classes targeting shy students (Goh, 2005; Baek, 2003; Ha, 2006). Self-expression represents an ability to convey one’s own emotion or to express one’s own intention (Kim & Lee, 2003). A study (Kim, 2004) shows that self-expression contributes to upgrading sociability. Given this, it may be observed that self-expression serves as the basis for socialization. Just as education ultimately aims to improve learners’ sociability, self-expression is an essential personality trait achieved through school education. Despite that, schools fail to pay attention to promoting children’s self-expression in class activities due to too much emphasis on the cognitive aspect of the lesson. This makes shy students afraid to speak up, to be distressed due to low self-esteem and poor sociability, allowing their negative emotions and way of thinking to have an ill effect on others. These observations suggest that shy students require educational concern, assistance, and consideration.

The studies by Goh (2005), Baek (2003), Yee (1992) and Ha (2006) focus on developing ways to promote self-expression in classroom interactions. These studies use an assertive training as a treatment for decreasing shyness of students. Moreover, these studies identify the effect of assertive training on shyness in classroom situations. The treatment of these studies is a specially designed program for their experiment. In their nature, they are not activities which students perform in their daily lives. In addition, these studies focus on controlling learner variables to promote self-expression by treating shyness and are limited in that they fail to provide any effective ideas about controlling the classroom variables that might contribute to shyness. If classroom variables such as
instructional procedures, media, organization, and environment, still remain out of control, they may trigger shyness among students found to report reduced shyness as a result of taking self-expression programs.

This raises the need to develop ways of promoting self-expression in classroom interactions by reducing the ill effects of classroom variables on shyness. That is where cyberspace and anonymity can come to the fore. Kim (1999) argues that the psychological sense of liberation in cyberspace helps people to loosen the shackles of their emotions and self-expression, allowing them to express themselves more strongly and exaggeratedly. Kim (2004) contends that as a result of conducting in-depth interview on adolescents, 14 out of 26 respondents were found to act differently in cyberspace. A large portion of the respondents were found to be more talkative and less afraid of speaking up in cyberspace. In Second Life, there are four main forms of communication: chat, instant messaging, gestures and voice. A primary benefit of text-based communication in Second Life is that students and tutors can have a transcript of what they have discussed during the session, so they revisit later on. It is also useful for those students who were unable to participate in the Second Life session to have an idea of what happened. Voice-based offers advantages over text-based if the nature of the communication is for providing feedback or talking things through, etc.

In addition, Reid (1991) says that guaranteed anonymity in cyberspace gives people a chance to disguise or conceal what they are, promoting intense socialization hardly ever seen in real interpersonal relationships. Anonymity is a concept that evokes an absolute lack of connection between a piece of information or an action and a person (Wallace, 1999). In other words, one has anonymity or is anonymous when others are unable to relate a given feature of the person to other characteristics. Thus, anonymity presupposes social relations and relative to social contexts. For this reason, anonymity affects social behavior in cyberspace as well as in real life. Park and Kim (2000), whose studies focus on the effect of anonymity on discussion in synchronous virtual discussion class, say that anonymity contributes to more attempts at self-expression. Jeong (2004) says that the anonymity guaranteed in online discussion results in an increase of messages exchanged in terms of sociability and interaction. These studies strongly support that residents in Second Life can have their own behavior affecting another lives.

All of these studies show that cyberspace, and the anonymity it provides, may contribute to more attempts at self-expression. This study aims to identify the accurate effects of shyness on other students’ self-expression and the effectiveness of the classroom variables provided. By verifying the effectiveness of classroom variables, this study can inform teachers of applicable classroom variables that promote self-expression during class, particularly for shy students. This will ultimately help to boost learners’ school achievement and sociability.

This study focuses on identifying any difference in self-expression by introducing cyberspace self-expression boosters to the elementary school environment. In doing so, this study aims to shed light on the effectiveness of cyberspace self-expression boosters as a classroom variable that contributes to controlling shyness in classroom interaction. To that end, this study focuses on the research question described below.

*Is there any difference in self-expression of residents with different levels of shyness after they perform speaking activities in Second Life?*

By identifying the effectiveness of classroom variables, this study can inform teachers of applicable classroom variables that promote self-expression during class, particularly for shy students. This will ultimately help to boost learners’ school achievement and sociability.

**Limitations of the study**

This study does not aim to clarify the casual relationship between speaking activities and self-expression of residents in Second Life. Instead, this study focuses on different outcomes of self-expression originated from student’s shyness in Second Life. In order to see any causal relationship, an experimental research design should be used. However, it seems irrelevant to set up a control group where treatment effects are expected with the students who participated voluntarily in the study. Performed within this context, this study has a limited generalization of results.
Second Life as a doing place

Second Life (http://www.secondlife.com) is a virtual world developed by Linden Lab and is accessible via the Internet. The Second Life Viewer enables its residents to interact with each other through their avatars. Second Life users create a customized avatar or personage to represent themselves (http://secondlife.com/whatis/). The avatar moves about in the virtual world using mouse control and intuitive keyboard buttons. They can meet other residents, socialize, participate in individual and group activities. In addition, they create and trade virtual property and enjoy pastimes, or travel throughout in-world. Second Life’s virtual world also includes sound; wind in the swaying trees, babbling brooks, audible conversation, and built-in chat and instant messaging. Residents buy property, start businesses, game with other residents, create objects, join clubs, attend classes, or just hang out. Residents can also travel freely throughout the virtual world. Thus Second Life is a place for residents’ communication and expression by doing various activities.

Using Second Life in education can be extremely advantageous in several aspects (Bransford & Gawel, 2006). First, it creates a sense of sharing amongst residents meeting online. It supports to create a strong sense of collaborative community. Second, Second Life provides an environment that expands resident’s ideas through interoperability. In Second Life, participants can merge objects with other things built within Second Life. Third, Second Life makes it possible to create interactive learning experiences that would be hard to duplicate in real life. Based on these characteristics, there have been efforts of to use Second Life in teaching and learning. Bilyeu (2007) reported that the students’ responses to using Second Life were very reassuring in that they found playing these experiences a fun way to learn the science material.

On the other hand, Second Life has certain implications for ‘learning by doing.’ Throughout history, youths have been apprenticed to masters in order to learn a trade. We understand that learning a skill means eventually trying our hand at the skill. When there is no real harm in simply trying, we allow novices to "give it a shot" (Schank & Clearly, 2011). Traditional educational approaches which focus on knowledge acquisition have been criticized for disregarding self-initiated learning activities for students. The idea of ‘learning by doing’ emphasizes meaningful learning and the integration of various aspects of real life. In other words, ‘learning by doing’ links subject matter to substantial experience for students through their active participation and/or work. “Learning by doing” in Second Life has the following implication for teaching and learning:

- By observing how things occur in the world and trying activities on their own, student learn to trust their own abilities.
- By creating and re-inventing, authentic experiences can grow.
- By interacting with others, residents can increase collaboration.
- By volunteering, residents can dedicate their time to becoming part of the learning community.

‘Learning by doing’ is similar to the way parents usually teach children. They don't give their children series of lectures in order to teach them how to walk and talk. When it comes to school work, however, instead of encouraging students to learn by doing, we create courses of instruction that merely deliver information, knowledge and concepts to students. In Second Life, learning by doing is natural for the residents.

Virtual worlds and self-expression

Self-esteem plays an important role in promoting self-expression (Kim & Lee, 2003). Self-esteem may be described as self-efficacy. Bandura (1986) says that self-efficacy may increase with the use of resources boosting efficacy expectancy such as accomplishment experience, vicarious experiences, verbal persuasion, and emotional arousal. Among them, accomplishment experience is the most influential determinant which decides the assessment of self-efficacy. The higher one’s accomplishment experience, the higher their self-efficacy. But when one experiences failure repeatedly, the opposite is true. Elements such as competence on performance accomplishment, performance complexity, outsider’s help, situation at the time of performance, and effort all play a part in assessing self-efficacy.

Bandura (1986) proposed effective models to induce successful performance by participants. In those studies, participants were well informed of what should be done. The models include performance desensitization that allows a gradual approach to performance accomplishment. Participant modeling allows both observers and
demonstrators to play the given roles successfully while granting exposure to accomplished performance situation and self-fulfillment of performance accomplishment.

The anonymity and indirect self-expression in virtual worlds may allow shy students, afraid of expressing themselves, to get more used to speaking up in front of learners, more so than in face to face meetings. This may be called a sort of performance desensitization proposed by Bandura (1986).

Cyberspace anonymity contributes to desensitizing shy students in accomplishing performance. If cyberspace anonymity is introduced as a classroom variable, it is expected to boost learners’ sociability and to promote their self-expression. Kim (1999) explains how cyberspace anonymity can result in promoting self-expression in classroom interactions. Firstly, Kim (1999) argues that the psychological sense of liberation in cyberspace helps people to loosen the shackles of their emotions and self-expression, allowing them to express themselves more strongly and exaggeratedly. Secondly, openness and equality play a part. In addition, a cyberspace gives its residents infinite freedom, which transcend human subjectivity and where identity becomes no longer burdened by the prejudices of persons (Miah, 2000). All users are treated equally or in a less hierarchical way in a cyberspace. In Second Life, when residents live an ordinary life, they are given the freedom to act or say whatever they like, not only that, they are also given the opportunity to be whom, or whatever they like. This allows residents to live out their fantasies, or sometimes even real lives anyway that they choose. The best part about all of this is when they are interacting in Second Life then they don’t have to worry about people judging the real you, they are simply analyzing the avatar, so they no longer have to be self-conscious about talking to new people. The only limit that residents will have is their own imagination. This sense of equality is reinforced in cyberspace, leaving users much less exposed to authoritarianism. Thirdly, complex identity comes into being. People hold their own identity in diverse ways. Cyberspace anonymity allows people to be selective about when and where they expose their identity or even to disguise it. This gives users latitude to present their identity in various ways and gives them freedom to show themselves as they want.

Anonymity and indirect exposure of identity in cyberspace contribute to the desensitization of shy people to accomplishing performance. In addition, by introducing cyberspace anonymity to the classroom, learners may get used to speaking up without difficulty. This enables learners to express themselves more often and to gain satisfactory presentation experiences. By repeating successful self-expression experiences, shy students may well experience improved self-expression and self-efficacy (Kim & Lee, 2003; Noh, 2000; Chang & Jang, 2008).

Method

Participants

Seventy-one students from two fifth-grade elementary school classes in Masan, South Korea participated in this study. They consisted of thirty-five male and thirty-six female students. Eleven students were excluded from this study due to their incomplete scales. Sixty students were used as final subjects for analysis as shown in Table 1. Half of sixty students were assigned to the high shyness group while the other thirty students were assigned to the low shyness group.

<table>
<thead>
<tr>
<th></th>
<th>High shyness group</th>
<th>Low shyness group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>Female</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

Tools

Two measures were administered to the participants: The Revised Cheek and Buss Shyness and Sociability Scale, and the assertiveness scale developed by Rakos & Schoeder (1979).
The Revised Cheek and Buss Shyness and Sociability Scale

The revised Cheek and Buss shyness and sociability Scale (Cheek & Buss, 1981) was used to test the shyness of the participants. This scale consisted of thirteen Likert-scale items. Participant responses are summed up as a degree of shyness, thus the higher the score, the higher the degree of shyness. The minimum score possible is 13 and the maximum score is 65. According to Cheek (1981), scores higher than thirty-three can be classified as high shyness. In this study, thirty-four was used as the border between the low shyness and the high shyness. Cronbach’s $\alpha$ is .90 (Heiser, Turner, & Beidel, 2003).

The self-expression scale

Participants’ self-expression was tested using Rakos & Schoeder’s (1979) Self-Administered Assertiveness scale. This scale consisted of twenty questions, of which nine questions rate assertive behavior, seven rate assertive voice, and four rate assertive physical expression. This study excludes the four physical expressions of assertiveness. The test-retest reliability of this scale is .758. The score ranges from 0 to 16.

Procedure

Participants were allocated into either the high shyness group or the low shyness group according to their shyness level measured by the revised Cheek and Buss Shyness and Sociability Scale. The mean of shyness is 40.12 and the standard deviation is 5.60. Sixty students were divided into two groups. The median was 43.24. The higher half of the sixty students was labeled as the high shyness group and the lower half was labeled as the low shyness group. The pre-test of self-expression was administered prior to speaking activities in Second Life. The mean of the pre-test of self-expression was 10.61. The post-test of self-expression was administered after speaking activities in Second Life. The mean of post-test of self-expression was 12.68.

Selection of speaking topics in Second Life

A total of sixteen topics were selected for participants' speaking. These topics were selected from language, ethics, and social studies areas.

Speaking activities in Second Life

For speaking activities, two classes are used to form eleven groups with members of six to seven members each. The most important consideration in grouping was to maintain anonymity of the members. To maintain anonymity, unfamiliar or unknown members were put into the same group. It was forbidden to call anyone’s name; instead Second Life identities (avatar names) were the only names that could be used during the speaking activities. Two Second Life classes were held at the same time so that no subjects could be recognized. Once the speaking activities were over, the subjects were asked if they could recognize someone in the same group. All members answered that they were not able to recognize anyone. The speaking activities in Second Life were held twice a week for six weeks with each session lasting 40 minutes. In total, subjects had 480 minutes of speaking activities. Speaking topics were copied from activities from fourth-grade language, ethics, and social studies lessons. Participants wrote their opinions of a topic in their journals. They were allowed to see their memos while they are speaking to others. Even though memos are not directly related to their speaking, memos can affect their speaking time. Thus, 15 lines were permitted for their memos to help them keep the amount of speaking time the same for all members. In Second Life, members sat in their chairs while the speaker stood in front of a podium and spoke in front of other members. Because they were not allowed to talk to anybody before speaking in Second Life, they could not identify who is the speaker in real world. After all members spoke, they participated in a question and answer session for ten minutes. They discussed unclear points, speakers’ good points, and described points that need to be avoided when speaking. Figure 1 shows a subject speaking in Second Life and Figure 2 shows group discussion after speaking.

The researcher, as a moderator, moved around the classroom in Second Life, helped the subjects to manage their environment, and assisted them in using their audio equipment (e.g., microphones and headphones). All notices to
participants were delivered through chats.

Figure 1. Speaking in Second Life

Figure 2. Discussion after speaking

Data Analysis

This study assumed an increase in the self-expression score and attempts to discover which groups show an increase on the self-expression score. To obtain basic statistics, means and standard deviations on the pre and post self-expression test for each shyness group were calculated. Then, gain scores on the self-expression test before and after the treatment were obtained by subtracting scores of the pre self-expression test from those of the post self-expression test. An independent t-test procedure was applied to test differences in increases in the self-expression of the two shyness groups, because two scores are independent.

Results and discussion

To examine the difference of the self-expression score after speaking activities of the residents, pre and post test scores were compared between the two shyness groups. The results are as follows.

<table>
<thead>
<tr>
<th>self-expression test</th>
<th>group</th>
<th>M</th>
<th>SD</th>
<th>N</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>High shyness</td>
<td>9.13</td>
<td>2.89</td>
<td>30</td>
<td>58</td>
<td>-4.200</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Low shyness</td>
<td>12.10</td>
<td>2.58</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post</td>
<td>High shyness</td>
<td>12.27</td>
<td>2.18</td>
<td>30</td>
<td>58</td>
<td>-1.473</td>
<td>.146</td>
</tr>
<tr>
<td></td>
<td>Low shyness</td>
<td>13.10</td>
<td>2.20</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 contains basic statistics of the pre and post test scores of each shyness group. On the pre-test, the high shyness group’s mean score was 9.13 and the low shyness group’s was 12.10. The low shyness group shows higher score on the pre self-expression test than the high shyness group. This difference is statistically significant ($t = 4.200$, $p < .001$). As shown in Table 2, the high shyness group has a lower level of self-expression, whereas the low shyness group has a higher level of self-expression. This finding coincides with recent studies reporting that extrovert students of less shyness tend to express themselves frequently in their web-based learning and ordinary daily life (Kim & Lee, 2003; Noh, 2000; Chang & Jang, 2008). This higher degree of expression frequency might be because less shy students are more active and express themselves more than others. On the other hand, shier students are more passive and express themselves less than others.

On the post-test, the high shyness group’s mean was 12.27, which represents an average increase of 3.14 from the pre-test. The low shyness group’s mean was 13.10, which represents an average increase of 1.00. Table 3 shows the difference in gain scores.

As shown in Tables 3, the high shyness group showed an increase in self-expression by 3.14, whereas the low shyness group showed an increase of 1.00. This difference is statistically significant ($t = 5.217$, $p < .001$). Thus we found the 2.14 difference in the increase of self-expression score between the high shyness group and the low
shyness group after having performed speaking activities in Second Life. Figure 3 shows a graphical representation of the difference.

Table 3. The increase of self-expression before and after the treatment

<table>
<thead>
<tr>
<th></th>
<th>group</th>
<th>M</th>
<th>SD</th>
<th>N</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase of self-expression</td>
<td>High shyness</td>
<td>3.14</td>
<td>1.98</td>
<td>30</td>
<td>58</td>
<td>5.217</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Low shyness</td>
<td>1.00</td>
<td>1.05</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3. Increases of self-expression for high shyness group and low shyness group

This figure suggests that speaking activities in Second Life can work on shy students. Participation in the Second Life speaking activities enabled the high shyness group to achieve the same level of self-expression as the low shyness group.

Virtual worlds, including Second Life, can be used as an environment for enhancing self-expression via speaking activities. In classroom settings, shy students cannot easily make their opinions known to the teacher or to other students even though it is critical in achieving classroom objectives. As a result, shy students have difficulty in achieving learning goals in the classroom. A virtual world like Second Life with relevant activities provides them with expanded opportunity to achieve their learning goals. These activities are more effective to the highly shy students. Even for low shy students, these activities are effective even if it is not statistically significant. What this tells us is that virtual worlds can enhance residents’ self-expression regardless of their levels of shyness. Providing students with relevant activities with anonymity in a virtual world is an efficient way of overcoming their shyness.

Conclusion and suggestion

The differences of self-expression between students who are highly shy and students who are low shy exist in their daily lives as well as in their learning. Generally, less shy students do better in their self-expression. This difference is caused by extrovert students’ tendency to express themselves more frequently and to be more self-confident than others. However, speaking activities in a virtual world work on shy students’ self-expression. Second Life seems to help students to overcome their shyness that keeps them from trying to express themselves. This implies that students with low self-expression can overcome their weakness in a virtual world and can improve their self-expression through activities in a virtual world.

What the results of this study imply is that media can be a useful environment for students with certain characteristics. Further studies are needed to see if a virtual world can be a curing environment for shy students’ depression, low self-concept, social and emotional adjustment disorder, and low self-efficacy.
References


