Taiwanese Nursing University Students’ Perceptions of Integrating Anatomy Vocabulary Learning into Role-play

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Abstract

In a nursing university where two required courses are considered difficult school subjects by incoming students, we seek to integrate their anatomy vocabulary learning into role-play in an English listening and speaking course. This study aims to identify key elements for establishing role-play as an effective Communicative Language Teaching (CLT) activity in facilitating their anatomy vocabulary learning and English speaking proficiency. It reports on a questionnaire based study exploring first-year nursing university students’ experience in role-play with a particular focus on the acquisition of anatomy vocabulary. The subjects for this study were a class of 46 freshmen who were taking Freshman English Lab and Human Anatomy each as a required course in a nursing university in Taiwan. Perception questionnaires were administered to them prior to and after role-playing. Meanwhile, structured interviews were implemented to six subjects in further eliciting their perception of the target activity. The findings indicated that after role-playing, the subjects demonstrated a change in their perceptions in terms of a higher level of preference and a lower degree of difficulty towards the activity. While they confirmed the effects of role-play on anatomy vocabulary learning, they did not perceive it as having a facilitating effect on enhancing their English speaking proficiency. The reason they had reserved attitudes towards role-play can be reflected by the interviewees’ responses which revealed the factors that may hinder their full participation in role-play, ranging from the learner factor, the peer factor, and the implementation factor to the administration factor. Finally, implications and suggestions were made and directions for future research were provided.

Keywords: Role-play, Anatomy vocabulary, communicative language teaching, English speaking proficiency.

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I. Introduction

*Human Anatomy,* a core course to Taiwanese nursing students, features a heavy study load of vocabulary learning in relation to human bones. They were required to memorize 400 English vocabulary items in one academic semester and were requested to be tested on them. They had a hard time with the spellings, pronunciation and meanings of anatomy vocabulary. In view of this, an innovative idea of using role-play, a typical Communicative Language Teaching (CLT) activity, to facilitate students’ vocabulary learning in *Human Anatomy* was proposed by me, their English instructor, and endorsed by their anatomy instructor upon the integration of anatomy vocabulary into the role-play activity. It was hoped that through an interactive oral activity, students practiced anatomy vocabulary in small groups and ultimately enhanced both their *Human Anatomy* vocabulary learning skills and English speaking proficiency.

Given that communicative competence is extremely important in global communication and national economic development, speaking proficiency is taken as a significant skill in English education in Taiwan across all educational levels. Since this study integrates anatomy vocabulary learning into role-play, we will briefly introduce the communicative language teaching approach and the effects of role-play on learning, in particular on vocabulary learning and its application to content area studies.

II. Literature Review

**Communicative Language Teaching**

Communicative Language Teaching has become widely promoted in language teaching and learning in both ESL and EFL countries in recent decades (Hiep, 2007). It is based on ‘communicative competence’ proposed by Hymes (1971), featuring negotiation of meaning and interaction in the social context. In contrast to traditional approaches which regard grammatical competence as the basis of language proficiency (Chomsky, 1965), CLT is characterized by learner-centered, meaningful negotiation. This innovation in methodology aims to develop learners’ communicative competence. The underlying principle of this approach is that a communicatively competent learner uses his linguistic knowledge and ability to communicate with an English native speaker. By engaging in communicative activities in classroom activities such as games, role-plays, information gap activities, and problem-solving tasks, learners acquire communicative skills unconsciously. Hitherto, the theories and use of CLT became widely accepted around the globe through the 1980s and into the Millenium, and its implications in teaching have had a profound impact on ELT policies and practices (Yuet, 2008).

Hymes (1971) put forward the notion of ‘communicative competence.’ His communicative competence focuses on the use of language in social contexts. Later Canale and Swain (1980) proposed a framework that delineated communicative competence in virtue of language use and language learning. They argued that communicative competence was multi-faceted in that it stressed the importance of being able to use a language rather than just learning about the language rules. Canale and Swain expanded communicative competence to include grammatical competence, sociolinguistic competence, and strategic competence (Littlewood, 1981). Later Canale (1983) added ‘discourse competence’ to refer to the ability to interpret language beyond the sentence level. Taken the above,
a model of a four-component theoretical framework for communicative competence was proposed in which grammatical competence, sociolinguistic competence, strategic competence, and discourse competence were seen as the identifying features of CLT.

Effects of role-play on learning

Role-play as a typical communicative activity stresses collaboration among learners in real-life situations (Sung, 2010). In a role-play activity, each student is assigned a role and he improvises a scene based on the given information. Role-play is widely used as a pedagogical technique for acquiring communication skills in education. In fact, it comes in a milieu of strengths in language teaching and learning (Cohen et al., 2007). It encourages creativity (Ments, 1999) and increases learner motivation, enhances confidence and oral competency (Abidin, Osman, & Hosseini, 2012), heightens self-esteem, and lowers learner anxiety. It can also promote cultural understanding for ESL learners (Scarcella & Oxford, 1992). Further, it can be used to teach communication skills (Jackson, 2011). Halápi and Saunders (2002) investigated the learner perceptions of role-play activity based on in-depth interviews with university trainee teachers in the Hungarian context. Savignon (1997) noted that “role-playing allows learners to explore situations that would otherwise never come up in the classroom” (p. 187). Her remarks strengthen the notion that role-play breaks the limitation of the classroom as an artificial setting for learning by bringing real-life situations into the classroom. Dubbed a “CLT star” (Al-Arishi, 1994, p. 338), its social interactive values were confirmed by its proponents (Littlewood, 1981; Savignon, 1997).

The effects of role-play on vocabulary learning are observed by a number of scholars. In proposing an updated model of communicative competence, Celce-Murcia (2007) addressed the importance of a learner-centered contextualized discourse with the focus of communicative competence. In her model, vocabulary was described as a discrete learning objective that could be presented and acquired in meaningful interaction. Similarly, Ments (ibid.) remarked that role-play was a highly verbalized technique that depended on linguistic ability. In parallel, Abidin, Osman, and Hosseini (2012) echoed the effects of role-play on vocabulary learning: “Role-play activities provide a wealth of vocabulary” (p. 260) in helping learners develop their communicative competence. By devising scenes of everyday life where target vocabulary is learned, learners practice using language in a non-threatening setting.

Given the above advantages of role-play on learning, we are concerned with the additional areas where this technique can be used effectively. The effects of role-play on content study were evidenced by Hoecherl-Alden (2000), who proposed the concept of content-based communication in which communicative and content instruction were combined. She suggested that in order to train professional school students for future careers, content courses for communication should be developed. She cited a German course, a case study by Hedderich (1999), in which role-play was geared towards German-American interaction to train students to communicate and broaden their cross-cultural awareness. Ments (ibid.) theorized that we could use role-play to reinforce learning in any area. In this respect, role-play can be used to highlight the learning of subject areas which impinge on people’s lives, a use which is of relevance in particular in light of the increasing concern over the learning of content area study in technological and
vocational education in Taiwan.

This study aims to explore the viability of using role-play to incorporate anatomy vocabulary imparted in students’ anatomy class to facilitate their learning process. Meanwhile, it seeks to promote the application of role-play as an effective communicative activity in enhancing their English oral proficiency. Based upon the aforementioned purposes, the research questions for this study are shown below.

1. What are the changes in learners’ perceptions of the role-play activity prior to and after role-playing?
2. What are the learners’ perceptions of role-play in facilitating the learning of Human Anatomy vocabulary?
3. What are the learners’ perceptions of role-play in enhancing their English speaking proficiency?
4. What are some unhelpful aspects of role-play that may impede learners from fully participating in role-play?

III. Methodology

Subjects

The subjects for this study were a cohort of 46 incoming students from a nursing university in Taiwan. They were selected based on convenient sampling since they were all enrolled in Freshman English Lab, a required course for two hours in the language laboratory each week during the implementation of the study. Most of them (93.4%) had studied English in Taiwan for 6–10 years and only 6.6% for over 10 years. With regard to their former educational backgrounds, over half of them (63.0%) studied at vocational high schools, followed by comprehensive high schools (30.5%), universities (4.3%) and general high schools (2.2%). As for the interviewees, six nursing students, both male and female, with mixed educational backgrounds were purposefully selected.

Instrument

This study adopted the student perception questionnaire survey and structured interviews. Perception survey has been utilized extensively in healthcare and psychology to explore human minds and behavior (Rattray & Jones, 2007), let alone in education. DeNeve and Heppner (1997) examined college students’ perceptions of a psychology course where role play simulations were employed and recommended as an active learning technique. Rather than a questionnaire, telephone interviews were carried out to address the issue in their study. Therefore, following this, we designed a pre-session perception questionnaire (see Appendix A) to explore students’ perceptions of learning English speaking and anatomy vocabulary, and of role-play as a classroom activity. To find out about how the subjects’ perceptions may vary after role-playing, we administered a post-session perception questionnaire (see Appendix B) which aimed at eliciting how they perceived the effects of role-play on anatomy vocabulary learning and English speaking. Two open-ended questions were also added to this questionnaire to derive more information. Both questionnaires were in a five-point Likert scale format, ranging from 5 (strongly agree) to 1 (strongly disagree). The questions were designed in English but were translated into Chinese. To ensure clarity and avoid confusion, we had a senior English teacher review the questions and check the translated version. We then had a student (other than the subjects) pilot-test the survey and revised some minor
questions based upon her feedback.

The interview as a qualitative approach is one of the research methods used in this study. It sought to gain more perspectives into the questionnaire items and to provide the interviewees a chance to share their views and experience in English and anatomy learning and use. Structured interview questions were reviewed by a TESOL expert prior to conducting the interviews in a systematic and consistent way. Altogether eighteen interview questions (see Appendix C) were grouped under four headings, aiming at the subjects’ perceptions of and experience in learning English speaking, anatomy vocabulary, role-play in general, and specifically the target implemented role-play activity.

Data Collection

The data collection for this study stems from two sources – the quantitative and the qualitative data. Both were based upon a 2-hour English aural-oral instructional practice in the English language laboratory each week. This study employed perception questionnaires which came in two stages. The pre-session questionnaire was administered prior to the implementation of the activity, which took place in mid-March 2012. It took the subjects approximately 15 minutes to complete the questionnaire. Apart from this questionnaire, a post-session perception questionnaire with two extra open-ended questions was administered to them in mid-June 2012. As the subjects were our own students, the response rate was 100%.

Another source of data collection - the qualitative method - involved the interview, which was utilized as a supplement to the questionnaire survey to gain more insights into the subjects’ perceptions of English speaking and anatomy vocabulary learning, as well as the target instructional activity. In June 2012, we conducted interviews with 6 subjects, who were purposefully selected from differing role-play groups. Each interview session that lasted one hour was undertaken in Chinese and audiotaped upon the verbal and written agreement of the subjects. After all interview sessions were complete, the excerpts from the student interviewees were transcribed and translated from Chinese into English by the researcher. The transcribed verbatim and the transcripts were checked by a senior Taiwanese English teacher.

Data Analysis

The data analysis for this study comprised two methodologies, the quantitative and the qualitative. The quantitative method was adopted to analyze the data collected from the survey questionnaires whereas the qualitative method was conducted to interpret the data obtained from the interviews and the open-ended questions in the post-session questionnaire.

For the quantitative analysis, the subjects’ responses to the survey questionnaires were collected, computed, and analyzed using SPSS version 19.0 for Windows. With regard to the statistical procedures, descriptive statistics were performed to probe into the students’ perceptions of English learning, the instructional activity, and the learning of anatomy vocabulary based on the outcome of the questionnaire items. As the survey questionnaires were administered twice, i.e., prior to and upon the completion of the role-play activity, dependent paired-samples t-tests were used for a comparison between the two resulted from any potential changes in learners’ perceptions. As most of the subjects have never studied Human Anatomy, research question 2 was designed and examined in the post-questionnaire only and thereby descriptive analysis rather than a
paired-samples t-test was used. For the above analysis, an alpha level of .001 was used as the criterion level for determining a significant difference.

We then proceeded to the qualitative analytic procedure which involved the interviews and two open-ended questions in the post-session questionnaire. As explained earlier, the data were thematically analyzed. We reviewed the transcribed verbatim, sifted through each interview question, identified key concepts and grouped them across four headings before linking them to our research questions.

To derive a deeper understanding of the subjects’ responses to the survey, we designed two open-ended questions. Through the process of coding, sorting, analyses and interpretation, their perceptions of the instructional activity and experience as English and anatomy learners were extracted and refined from pieces of information to unravel inferences and finally conclusions were drawn vis-à-vis their perceptions and engagement in the role-play activity.

IV. Results

In response to research question 1, descriptive statistics (see Table 1) based on the results of the pre-test demonstrated that 41.3% of them considered speaking English difficult. Since only 39.1% role-played before (based on the analysis of the subjects’ background information) in their former institutes, it is understandable that only 13.1% of the subjects reported enjoying role-playing and almost half (47.8%) found role-playing difficult. Prior to role-playing, over half (58.7%) of the subjects confirmed its effects on the enhancement of their speaking ability and an overwhelmingly high percentage of them (95.7%) wished they had had a better command of oral proficiency.

As seen in Table 2, based on the outcome of a paired-samples t-test, it was evident that after role-playing, there was a change in the subjects’ perceptions with regard to two questionnaire items: After role-playing, the subjects demonstrated a higher level of preference towards the activity (M = 3.50, SD = 0.94 after role-playing; M = 2.54, SD = 0.94 prior to role-playing). The level of their preference towards role-playing is statistically significant (t = -6.160, p < .001), indicating that more subjects liked the activity after role-playing.
Table 1  Subjects’ Perceptions of English Learning Based on the Pre-session Questionnaire (N = 46)

<table>
<thead>
<tr>
<th></th>
<th>SD</th>
<th>D</th>
<th>NO</th>
<th>A</th>
<th>SA</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning English is important</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>15</td>
<td>28</td>
<td>4.52</td>
</tr>
<tr>
<td>Learning English is difficult</td>
<td>2.2</td>
<td>0</td>
<td>4.3</td>
<td>32.6</td>
<td>60.9</td>
<td>3.22</td>
</tr>
<tr>
<td>Being able to speak English is important</td>
<td>1</td>
<td>12</td>
<td>16</td>
<td>14</td>
<td>4</td>
<td>4.37</td>
</tr>
<tr>
<td>Speaking English is difficult</td>
<td>2.2</td>
<td>4.3</td>
<td>8.7</td>
<td>21.7</td>
<td>63.0</td>
<td>3.24</td>
</tr>
<tr>
<td>I’m interested in learning English</td>
<td>1</td>
<td>10.9</td>
<td>30.4</td>
<td>45.7</td>
<td>13.0</td>
<td>3.61</td>
</tr>
<tr>
<td>I like role playing</td>
<td>16</td>
<td>6</td>
<td>18</td>
<td>5</td>
<td>1</td>
<td>2.54</td>
</tr>
<tr>
<td>Role-playing is difficult</td>
<td>6.5</td>
<td>0</td>
<td>45.7</td>
<td>34.8</td>
<td>13.0</td>
<td>3.54</td>
</tr>
<tr>
<td>Role-playing enhances my speaking proficiency</td>
<td>6</td>
<td>0</td>
<td>13.0</td>
<td>28.3</td>
<td>50.0</td>
<td>3.54</td>
</tr>
<tr>
<td>I hope to enhance my speaking proficiency</td>
<td>2</td>
<td>0</td>
<td>2.2</td>
<td>2.2</td>
<td>52.2</td>
<td>4.37</td>
</tr>
</tbody>
</table>

* RPA: the role-play activity

Table 2  Mean (M), Standard Deviation (SD), and T-value for the Subjects’ Preference of Role-play (RP) (N = 46)

<table>
<thead>
<tr>
<th></th>
<th>Pre-RP M (SD)</th>
<th>Post-RP M (SD)</th>
<th>t value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like RPA</td>
<td>2.54 (0.94)</td>
<td>3.50 (0.94)</td>
<td>-6.160***</td>
<td>.000</td>
</tr>
</tbody>
</table>

*** p < .001

Similarly, the analysis to another questionnaire item (see Table 3) also reflected a change in the subjects’ perceptions of the degree of difficulty of the target role-play activity. When asked whether they felt this activity was difficult, the subjects reported a lower level of difficulty (M = 2.70, SD = 0.89) after role-playing compared to that (M = 3.54, SD = 0.81) reported prior to role-playing. Their perceptions of the degree of the difficulty of role-playing prior to and after role-playing is statistically significant (t = 4.369, p < .001), suggesting that the subjects found the activity less difficult after role-playing.
Table 3  Mean (M), Standard Deviation (SD), and T-value for the Subjects’ Perceptions of the Difficulty of Role-play (RP) (N = 46)

Paired-samples t-test

<table>
<thead>
<tr>
<th>Pre-role play</th>
<th>Post-role play</th>
<th>Pre-RP</th>
<th>Post-RP</th>
<th>t value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role-play is a difficult activity</td>
<td>Role-play is a difficult activity</td>
<td>3.54 (0.81)</td>
<td>2.70 (0.89)</td>
<td>4.369***</td>
<td>.000</td>
</tr>
</tbody>
</table>

*** p < .001

To answer research question 2 with regard to the effects of role-play on learners’ anatomy vocabulary learning, descriptive analysis was initially performed to examine their experience and perceptions prior to the implementation of the activity. Given that only 10.9% of the subjects had prior experience learning anatomy vocabulary (based on the results of the subjects’ background information), naturally a high of 84.8% of them felt learning anatomy was difficult, as shown in Table 4. A majority of the subjects (80.4%) felt anatomy vocabulary was difficult but pronouncing it was not as threatening (65.3%). There was almost unanimous consensus among almost all the subjects (97.8%) that anatomy was an important school subject.

Table 4  Subjects’ Perceptions of Anatomy Vocabulary Learning Based on the Pre-session Questionnaire (N = 46)

<table>
<thead>
<tr>
<th>Questionnaire item</th>
<th>SD</th>
<th>D</th>
<th>NO</th>
<th>A</th>
<th>SA</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning anatomy is difficult</td>
<td>n</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>26</td>
<td>13</td>
</tr>
<tr>
<td>Vocabulary for anatomy is difficult to learn</td>
<td>n</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>26</td>
<td>11</td>
</tr>
<tr>
<td>It’s difficult to pronounce anatomy vocabulary</td>
<td>n</td>
<td>2</td>
<td>2</td>
<td>12</td>
<td>21</td>
<td>9</td>
</tr>
<tr>
<td>Anatomy is an important school subject</td>
<td>n</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>33</td>
</tr>
</tbody>
</table>

The results of the post-session questionnaire indicated that 73.9% of the subjects believed that role-play did facilitate their anatomy vocabulary learning. About two thirds of them considered their group performance successful (67.4%) and thought they learned a lot from this activity (65.2%). However, their general comments on this activity were less promising. Less than half (47.8%) of the subjects said they liked the activity although only 17.4% of them considered it difficult. When asked whether they would love to have another opportunity of practicing other nursing subjects through role-play in the future, only 26.1% gave positive answers whereas almost half (45.7%) of them gave neutral opinions (see Table 5).
Table 5  Subjects’ Perceptions of Role-play in Relation to the Learning of Anatomy Vocabulary and English speaking Based on the Post-session Questionnaire (N = 46)

<table>
<thead>
<tr>
<th></th>
<th>SD</th>
<th>D</th>
<th>NO</th>
<th>A</th>
<th>SA</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like RPA</td>
<td>n</td>
<td>1</td>
<td>4</td>
<td>19</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>2.2</td>
<td>8.7</td>
<td>41.3</td>
<td>32.6</td>
<td>15.2</td>
</tr>
<tr>
<td>RPA is difficult</td>
<td>n</td>
<td>3</td>
<td>17</td>
<td>18</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>6.5</td>
<td>37.0</td>
<td>39.1</td>
<td>15.2</td>
<td>2.2</td>
</tr>
<tr>
<td>RPA for my group is successful</td>
<td>n</td>
<td>0</td>
<td>6</td>
<td>9</td>
<td>22</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>0</td>
<td>13.0</td>
<td>19.6</td>
<td>47.8</td>
<td>19.6</td>
</tr>
<tr>
<td>I learned a lot from RPA</td>
<td>n</td>
<td>1</td>
<td>4</td>
<td>11</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>2.2</td>
<td>8.7</td>
<td>23.9</td>
<td>54.3</td>
<td>10.9</td>
</tr>
<tr>
<td>RPA enhanced anatomy vocabulary</td>
<td>n</td>
<td>0</td>
<td>7</td>
<td>5</td>
<td>29</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>0</td>
<td>15.2</td>
<td>10.9</td>
<td>63.0</td>
<td>10.9</td>
</tr>
<tr>
<td>I’d love to learn other subjects through RPA</td>
<td>n</td>
<td>1</td>
<td>0</td>
<td>12</td>
<td>23</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>8.7</td>
<td>19.6</td>
<td>45.7</td>
<td>17.4</td>
<td>8.7</td>
</tr>
<tr>
<td>RPA made anatomy vocabulary learning easier</td>
<td>n</td>
<td>0</td>
<td>8</td>
<td>14</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>0</td>
<td>17.4</td>
<td>30.4</td>
<td>43.5</td>
<td>8.7</td>
</tr>
<tr>
<td>RPA enhanced my English speaking</td>
<td>n</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>33</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>0</td>
<td>8.7</td>
<td>10.9</td>
<td>71.7</td>
<td>8.7</td>
</tr>
</tbody>
</table>

* RPA: the role-play activity

To derive the answer to research question 3, descriptive analysis was performed (see Table 5), which displayed an equivalent of 80.4% of the subjects who believed the target role-play activity had enhanced their English speaking proficiency after role-playing. Further analysis was obtained by performing a paired-samples t-test on the very same item, which examined whether the subjects felt role-playing enhanced their speaking fluency. Unfortunately, the statistics in Table 6 illustrated that the subjects’ perceptions of whether role-playing enhanced their speaking proficiency was not statistically significant ($t = -1.734$, $p > .05$), explaining that the subjects did not report more positive comments on the facilitating effects of role-play on their English speaking proficiency.
Table 6  Mean, Standard Deviation (SD), and T-value for Role-play in Enhancing Learners’ English Speaking Proficiency (N = 46)

<table>
<thead>
<tr>
<th></th>
<th>Pre-role play</th>
<th>Post-role play</th>
<th>t value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role-playing enhances my English speaking proficiency.</td>
<td>3.54(0.84)</td>
<td>3.80(0.72)</td>
<td>-1.734</td>
<td>.090</td>
</tr>
</tbody>
</table>

As mentioned, the result that less than half (47.8%) of the participating students liked this activity prompted us to unravel the underlying cause that impeded students from fully participating in role-play. What could have possibly gone wrong during the implementation of the activity? What were some factors that emerged to have made them less inclined to engage themselves fully in an interactive activity such as role-play? The answers to these questions were born out by the interview results in relation to Research Question 4: “What are some unhelpful aspects of role-play that may impede students from fully participating in role-play?” Each excerpt below was typically representative of a differing factor.

“I don’t know how to act. I felt like jumping into a hole when I stood up there. I made a complete fool out of myself. I hate to admit it, but I never enjoy role-play. I get nervous standing in front of everyone. No matter how well I was averse with my lines, I tended to forget them all when I panicked. I had stage fright, that’s all.” (#5, the Learner Factor)

“I’d rather work on my own. I think independent learning could produce better academic outcomes. It’s not that I don’t like interacting with my peers. It’s just that some of my group partners did not have a high sense of participation. They lagged behind in terms of schedule and never seemed to catch up, which bothered me a lot.” (#2, the Peer Factor)

“It’s hard for role-play to incorporate anatomy vocabulary and knowledge. The setting of our drama is pretty limited and the content is not dynamic enough. Most groups had identical settings and roles with doctors, nurses, patients and even the scope of anatomy vocabulary. Most words selected by our group were ‘old’ words from lessons taught before the midterm exam. What’s the use of practicing old words?” (#3, the Implementation Factor)

“I wish we could have had more microphones. When I was just about to enjoy watching others perform, I found myself distracted by total chaos—I was trying to read their lips and minds by observing their body language. It was even worse when the person next to me was talking.” (#4, the Administration Factor)

The subjects’ suggestions (open-ended question #2, Appendix B) to improve role-play are reported in Table 7, which focus on learners’ personality/emotional aspects of sessions, time management, lack of resources and the organizational aspect.
V. Discussion and Conclusions

With respect to the subjects’ perceptions of role-play, since only 39.1% of the subjects had experience with role-play in their former institutes, it was understandable that prior to role-playing, only 13.1% liked it and almost half (47.8%) of them recognized it as a difficult task. However, it was encouraging to learn that after role-playing, a lot more students liked this activity (13.1% vs. 47.8%) since a growing number of them felt role-playing was less difficult (see Tables 1&5).

In relation to research question 2, based on the results presented in the previous section, it can be concluded that a majority of the subjects perceived role-playing as having a facilitating effect on their anatomy vocabulary learning. One plausible reason for this expected result may lie in the fact that more than half (52.2%) of the subjects claimed that role-playing made anatomy vocabulary learning easier (see Table 5) in the post-session survey whereas in the pre-session questionnaire, 80.4% of the subjects felt anatomy vocabulary was difficult to learn (see Table 4). This was in parallel with the change in the subjects’ perceptions of role-play reflected by the outcome of research question 1 reported in an earlier session.

Apart from how role-playing can benefit learners’ anatomy vocabulary learning, we are also concerned about role-play as an effective activity in enhancing their English speaking proficiency. Although the number of subjects who agreed English speaking was difficult (41.3%) outdid that who disagreed (26.1%), about one third (32.6%) of them held reserved attitudes by giving neutral opinions (see Table 1). This could be partly explained by the fact that over half (58.7%) of the subjects’ showed interests in English. Given the result, it did not come as a surprise since the subjects were in general
high-achieving English proficiency students based upon the results of their school entrance English placement tests. The results in Table 6 lead us to the conclusion that although a growing number of subjects thought that after role-playing, their English speaking proficiency was enhanced, statistical insignificance due to short-term learning was predictable.

Based on the outcome of research question 2, it can be concluded that generally speaking, the subjects had positive perceptions of role-play, with respect to the assessment of their own group performance, whether they learned from it, and the enhancement of their anatomy vocabulary power. What’s worth noting is that more than a quarter (26.1%) of the subjects seemed reserved about the difficulty of pronouncing anatomy vocabulary (see Table 4). Pronunciation in relation to anatomy vocabulary did not seem to bother them to a high degree since not every single anatomy word is hard to pronounce. However, not much can be said about their preference towards this activity given that less than half of the subjects liked this activity and welcomed a potential future opportunity of learning other nursing subjects through role-playing in the future.

Another factor for the subjects’ reserved attitudes towards role-playing is that the content of the drama was constrained substantially to the given setting, which was preoccupied with a scene in a hospital focusing on a central theme of human bones. However, learner creativity can help enrich the dynamics of an interactive classroom activity (Halápi & Saunders, 2002).

VI. Implications and Suggestions

The results of this study have generated two pedagogical implications. One implication is that role-play might be of benefit to the learning of students’ anatomy vocabulary. English teachers ought to reflect on how English teaching and learning could be more beneficial to the learning of vocational students’ mainstream subjects. Another implication is that role-play can be helpful in motivating Taiwanese nursing students to practice speaking English. It is important to recognize that students learn in different ways and that role-play may be a preferred activity for EFL students where traditional approaches have been dominant. However, caution should be exercised in extrapolating results to nursing students in all nursing colleges or universities.

VII. Limitations and Directions for Future Research

This study is limited in that the results showed learners’ self-perceptions of their enhancement in anatomy vocabulary learning and English oral proficiency rather than the actual improvement. Given more time, tests on their anatomy vocabulary and English oral proficiency could have been developed and conducted.

Unexpectedly a limited number of anatomy vocabulary items were included in the role-play activity. A more fruitful outcome could have been produced with an abundant anatomy vocabulary.

Further research can be extended to an integration of other nursing subjects into role-play. The promotion of collaborative study in content areas may contribute to academic success in learners. In future advances to joint studies amongst a mainstream course and a language subject, perspectives should be given to how they can
develop a collaborative relationship by providing mutual assistance to each other in their individual fields.

To prevent students from having stage fright, in-class role-play performance could be replaced by an alternative outside-the-class film-making option. It helps ease the anxiety and raise the self-esteem of lower-English proficiency learners.

Consideration could also be given to the adoption of other communicative activities such as games, the information-gap and problem-solving activities.

References


*Attestation: Author Kuang-Yi Chou helped with the design, conducted the study, analyzed the data, approved the final manuscript, and provided equal contribution as the first author Hui-Chin Chang.*
APPENDIX A

(PRE) ROLE-PLAY PERCEPTION QUESTIONNAIRE

This questionnaire aims to investigate your perceptions of role-play implemented this semester. It is divided into three sections. The questions in section one are related to your background information. Section two contains items about English speaking and role-play. Section three involves questions regarding the learning of Human Anatomy. For all sections please circle one answer to each question.

I. Background information
1. I have learned English for (A. 1~5 years  B. 6~10 years  C. over 10 years).
2. Before entering this school, I went to …
   A. a general high school
   B. a vocational high school
   C. a comprehensive high school
   D. a technological and vocational college
   E. a university
3. I ______ prior experiences with role-playing.
   A. have   B. don’t have
4. I ______ Human Anatomy in my former school.
   A. have taken   B. have not taken

II. Questions about English speaking and role-play (SA: strongly agree, A: agree; NO: neutral opinion; D: disagree; SD: strongly disagree)

<table>
<thead>
<tr>
<th></th>
<th>SA</th>
<th>A</th>
<th>NO</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Being able to speak English is important.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6. Speaking English is difficult.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7. I want to improve my English speaking proficiency.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8. I like role-play activities.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>9. Role-play is a difficult activity.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10. Role-playing enhances my English speaking proficiency.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

III. Questions about the learning of Human Anatomy (SA: strongly agree, A: agree; NO: neutral opinion; D: disagree; TD: strongly disagree)

<table>
<thead>
<tr>
<th></th>
<th>SA</th>
<th>A</th>
<th>NO</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Human Anatomy is one of the most important school subjects I am taking this semester.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>12. It is difficult to learn Human Anatomy.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>13. The vocabulary items for the Human Anatomy class are difficult to learn.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>14. The vocabulary items I learned in the Human Anatomy class are difficult to pronounce.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

55
APPENDIX B

(POST) ROLE-PLAY PERCEPTION QUESTIONNAIRE

This questionnaire aims to investigate your perceptions of role-play implemented this semester. The questions deal with your perceptions of the in-class role-play activity. Please circle one answer to each question.

I. Perceptions of role-play (SA: strongly agree, A: agree; NO: neutral opinion; D: disagree; SD: strongly disagree)

<table>
<thead>
<tr>
<th></th>
<th>SA</th>
<th>A</th>
<th>NO</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I like the role-play activity for this semester.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. Role-play is a difficult activity.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3. The performance of my role-play group was successful.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. I have learned a lot from the role-play activity this semester.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5. The role-play activity for this semester enhanced the learning of my anatomy vocabulary.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6. The role-play activity for this semester enhanced my English speaking proficiency.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7. The role-play activity for this semester enhanced my English pronunciation.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8. The role-play activity for this semester made the learning of anatomy vocabulary easier.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>9. I enjoy an interactive way of learning English speaking with my peers.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10. I would love to learn other nursing subjects through role-playing in the future.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

II. Please circle and state your opinions and suggestions in the blanks below.

11. I (like / dislike) the role-play activity for this semester because …

________________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________

12. My suggestions to the role-play activity for this semester:

________________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________

________________________________________________________________________________
APPENDIX C

INTERVIEW QUESTIONS

Q1: About learning English speaking
1) How long have you learned English?
2) Do you like learning English?
3) Do you think it is important/difficult to be able to speak English in Taiwan?
4) Do you find speaking English difficult?
5) Do you wish to enhance your English oral proficiency?

Q2: About role-play
6) Have you ever role-played before? Was it a good experience?
7) Do you enjoy role-playing in English? Why or why not?
8) Do you like interacting with your peers in your studies?

Q3: About Human Anatomy
9) Have you ever studied Human Anatomy as a school subject before?
10) Do you think Human Anatomy is a difficult subject? Why or why not?
11) Do you find it difficult to memorize vocabulary for Human Anatomy?

Q4: About the role-play activity for this semester
12) How do you like the role-play activity for this semester?
13) Do you think your role-play group performance was successful?
14) Do you think this classroom activity is helpful in enhancing your vocabulary learning for Anatomy?
15) Do you think this classroom activity is helpful in enhancing your English speaking proficiency?
16) Do you/your partners have a good sense of participation in this activity?
17) Do you have any suggestions to how you can improve your group performance?
18) How would you like to have another chance of integrating role-play to other subjects in the future?
台灣護理大學學生對解剖學單字的學習
融入角色扮演活動的認知

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摘 要

基於解剖學和英文是國內護理大學新生課程學習中較困難的兩門科目，本研究乃利用學生的英語聽講練習課程，將解剖學單字的學習融入溝通式英語教學法中的角色扮演活動，目的在增進護生解剖學單字的學習與英語的口說能力。研究對象為台灣一所護理大學四十六位護理系新生，研究進行期間正同時修習此二門課程；研究工具為前、後測的認知問卷，分別於開學初與學期末進行。此外，實性訪談亦針對解剖學單字的學習、角色扮演活動、與英語口說能力進行調查與分析。研究結果顯示，於角色扮演前、後，受測者對活動的認知已改變，表演後提升了對活動的喜好且降低了對其困難度的認知。受測者肯定角色扮演對解剖學單字的學習成效，但有關此活動對英語口說能力的提升卻持保留的態度。訪談的結果顯示，阻礙學生積極參與並完全融入此活動的原因包括：學生本身、活動小組同儕、活動進行程序與其它行政相關種種因素。最後，本研究亦提出未來研究之方向與建議。

關鍵詞：角色扮演、解剖學單字、溝通式英語教學、英語口說能力。

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