Comparison of Emotions, Motivations and Learning Outcomes between Blended and Face-to-Face Training Programs in Banks

Zhong-Gen YU\textsuperscript{a,*}, Ran MENG\textsuperscript{b}

School of Foreign Languages, Hohai University, Jiangning District, Nanjing, China
\textsuperscript{a}18951801880@189.cn, \textsuperscript{b}756193711@qq.com

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Abstract. Professionals are always required to command professional English to some degree in order to improve their positional titles. Therefore, acquisition of professional English plays an important role in professional development. Failure in professional English acquisition will likely dim professional career. Compared with studies on English acquisition on campus, fewer studies have been conducted on English acquisition at workplace. This study, using several scales proved internally reliable previously and presently, compares the differences in emotions, motivations and learning outcomes between blended and face-to-face training programs in banks. Three conclusions, previously unfound in the field of professional English training, are reached: (1) Bank clerks are emotionally more favorable towards blended training than face-to-face lecturing; (2) Blended training is more motivating than face-to-face lecturing in banks; (3) Blended training leads to better learning outcomes than face-to-face lecturing in banks. Future studies should focus on the benefits of blended delivery and future practice can integrate blended training into MOOCs and flipped classrooms.

Introduction

While it has been hotly debated and explored in educational institutes that online learning outweighs face-to-face learning, in workplaces little is known about the different effects. This study, attempting to compensate for this regret, aims to identify the differences in learning effects between online and face-to-face learning in the contexts of bank. Research hypotheses are established, i.e., (1) Bank clerks are emotionally more favorable towards online training than face-to-face lecturing. (2) Online training is more motivating than face-to-face lecturing in banks. (3) Online training leads to better learning outcomes than face-to-face lecturing in banks.

Literature Review

With the emergence of online learning as an important supplement to face-to-face learning, there have been numerous studies on personal and contextual factors that influence learners’ choice in learning styles. It has been revealed that learners prefer online learning to face-to-face learning because of learner self-efficacy for online learning (Clayton, Blumberg, & Auld, 2010), self-efficacy for computer use and for self-regulation (Spence & Usher, 2007), and learning orientations that require independence and organization (Hoskins & van Hooff, 2005). Online learning environments are also considered benefits where collaboration, self-regulated learning, and information seeking can be more easily realized compared with traditional face-to-face classrooms (Lee & Tsai, 2011). Some studies argue that online learning can lead to better learning outcomes than face-to-face learning (e.g., Lim, Kim, Chen, & Ryder, 2008).

While emotion has been hotly debated in the past decade, many issues remain unaddressed about the emotion in education (Pekrun, 2005). It has been identified that both classes of emotion and specific discrete emotions exert some influence on learners’ academic achievements (e.g., Linnenbrink-Garcia,
Rogat, & Koskey, 2011). One of the focuses of this study will be on the role of emotion in online learning compared with face-to-face learning, and the relationship between emotion and learning outcomes.

Methods
This section will describe the methodology used in this study, including participants, instruments and procedure.

Participants
Participants were 127 clerks from two banks who were required to pass the financial English exam for their professional improvement. All the participants received undergraduate education majoring in banking, financing or accounting, ranging from 28 to 32 years old. The time working in banks spans 3 to 7 years. Both banks were randomly selected, with one (58 clerks) introducing a face-to-face lecturing program, the other (59 clerks) an online training program.

Instruments
Four instruments are included in this study: (1) an achievement emotions questionnaire; (2) a self-efficacy scale; (3) an extrinsic utility value scale; and (4) a learning strategy scale.

Academic Emotions
The Achievement Emotions Questionnaire (AEQ) (Pekrun, 2005) was used to identify clerk’s achievement emotions in relation to the EFL training course. The AEQ measures a range of positive and negative activating and deactivating emotions consistent with the control value theory of achievement emotions (Pekrun et al., 2002). The AEQ has been previously demonstrated internally reliable, with alpha levels ranging from .84 to .95 for hope, .85 to .91 for frustration, and .89 to .91 for anxiety (Pekrun, 2005).

Motivation
In this study, the factors of motivation include both self-efficacy and extrinsic utility value. Self-efficacy scale, composed of 7 items was adapted from the Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich et al., 1991), followed by a 5-point Likert scale ranging from very untrue, untrue, not sure, true, to very true. The internal reliability coefficients of MSLQ generally reached satisfactory levels in previous studies, ranging from .89 to .93 (e.g., Hadwin et al., 2001; Pintrich et al., 1991). The extrinsic utility value scale, adapted from the work of Eccles and Wigfield (1995), was made of two items in order to measure learners’ value of the tasks, followed by a 5-point Likert Scale, ranging from very useless, useless, unsure, useful, and very useful.
Participants’ learning strategy was measured by the scale developed by Greene et al. (2004) which was composed of 12 items, and followed by a 5-point Likert Scale, ranging from very untrue, untrue, not sure, true and very true. It was reported that the Cronbach’s alpha value of this scale measure reached .88 (Greene et al., 2004).

Procedure
In this section, both online training and face-to-face lecturing will be described in detail, followed by the procedure of this study.
Online Training

In this online training program, clerks were left freedom to asynchronously learn. The bank purchased the online training service package and clerks logged in the system by keying in the username and password. In total, the online package involved 48 teaching hours. Clerks could log in and learn wherever and whenever they felt convenient. In this program, a lecturer taught financing English online and clerks could watch and hear the lecturer. They could also pause, slow down or speed up the lecturing progress if necessary. After the online training, clerks were also required to finish the assignment online and they could also discuss with and meet peers online using communicative technologies.

Face-to-Face Lecturing

In face-to-face training, clerks had to receive education synchronously. The bank invited the lecturer who taught the online training financial English course to provide face-to-face lecturing. Clerks were required to attend the four-hour class every Saturday morning. The total teaching hours were the same with the online training. Clerks should make notes and answer questions in class, together with after-class assignment fulfillment. Certainly, they had no options such as pause, slowing down and speeding up, but follow the lecturer’s progress. They could also be provided with the opportunities of discussing with peers.

Results

This section will reveal the results based on the order of hypotheses.

Hypothesis 1: Bank clerks are emotionally more favorable towards online training than face-to-face lecturing.

In order to test this hypothesis, at the beginning of the training, participants from both banks were required to fill in The Achievement Emotions Questionnaire Finally, data for online training and face-to-face lecturing were retrieved from 52 and 53 valid questionnaires respectively. The results were summarized in Table 1.

Table 1. Comparison of emotions between online and face-to-face training programs.

<table>
<thead>
<tr>
<th>Training models</th>
<th>N</th>
<th>Mean</th>
<th>Mean difference</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Hope</td>
<td>52</td>
<td>36.17</td>
<td>9.65</td>
<td>11.89</td>
<td>.00</td>
</tr>
<tr>
<td>Face to face Hope</td>
<td>53</td>
<td>26.52</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online Anxiety</td>
<td>52</td>
<td>39.98</td>
<td>-4.73</td>
<td>-4.14</td>
<td>.00</td>
</tr>
<tr>
<td>Face to face Anxiety</td>
<td>53</td>
<td>44.71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online Frustration</td>
<td>52</td>
<td>13.69</td>
<td>-4.29</td>
<td>-6.36</td>
<td>.00</td>
</tr>
<tr>
<td>Face to face Frustration</td>
<td>53</td>
<td>17.98</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant differences between online and face-to-face training programs are revealed in Table 1. As shown in Table 1, the mean of online training in terms of the positive activating emotion of hope (M=36.17) is significantly larger than that of face-to-face lecturing (M=26.52, p=.00) at the significance level .01. This indicates that clerks harbor significantly more favorable hope to online training than face-to-face lecturing. The mean of online learning in terms of the negative emotions of anxiety (M=39.98) and anger or frustration (M=13.69) are significantly lower than those of face-to-face lecturing (M=44.71 for anxiety, M=17.98 for frustration) at the significance level .01. This indicates that clerks feel significantly more anxious and frustrated with face-to-face lecturing than with
online training. In total, clerks hold more favorable emotions with online training than face-to-face lecturing. Therefore, the hypothesis “Bank clerks are emotionally more favorable towards online training than face-to-face lecturing” is accepted.

**Hypothesis 2: Online training is more motivating than face-to-face lecturing in banks.**

The self-efficacy scale (7 items), extrinsic utility value scale (2 items) and learning strategy scale (12 items) are used to test this hypothesis. All of the three scales reached a satisfactory level in terms of internal reliability. All the data collected by using the three scales are summarized in Table 2.

Table 2. Comparison of motivations between online and face-to-face training programs.

<table>
<thead>
<tr>
<th>Training models</th>
<th>N</th>
<th>Mean</th>
<th>Mean difference</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online</td>
<td>52</td>
<td>30.52</td>
<td>3.00</td>
<td>5.36</td>
<td>.00</td>
</tr>
<tr>
<td>Face to face</td>
<td>53</td>
<td>27.52</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online</td>
<td>52</td>
<td>8.85</td>
<td>.87</td>
<td>4.17</td>
<td>.00</td>
</tr>
<tr>
<td>Face to face</td>
<td>53</td>
<td>7.98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online</td>
<td>52</td>
<td>52.92</td>
<td>6.94</td>
<td>7.60</td>
<td>.00</td>
</tr>
<tr>
<td>Face to face</td>
<td>53</td>
<td>45.98</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Table 2 demonstrates some significant differences in motivations between online and face-to-face training. As shown in Table 2, means of online training in terms of self-efficacy (M.D. = 3.00), extrinsic utility value (M.D. = .87), and learning strategy (M.D. = 6.94) are significantly higher than those of face-to-face lecturing at the significance level .01. This indicates clerks are significantly more motivated by online training than face-to-face lecturing. Therefore, the hypothesis “Online training is more motivating than face-to-face lecturing in banks” is accepted.

**Hypothesis 3: Online training leads to better learning outcomes than face-to-face lecturing in banks.**

As mentioned above, 127 bank clerks participated in the financial English exam, where 59 received an online training and 58 experienced a face-to-face lecturing. The final scores were collected and analyzed with a result summarized in Table 3.

Table 3. Comparison of final scores between online and face-to-face training programs.

<table>
<thead>
<tr>
<th>Training models</th>
<th>N</th>
<th>Mean</th>
<th>Mean difference</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online</td>
<td>59</td>
<td>65.64</td>
<td>2.95</td>
<td>2.40</td>
<td>.02</td>
</tr>
<tr>
<td>Face to face</td>
<td>58</td>
<td>62.69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 3, the mean of final scores of online training is 65.64 out of 100 points, which is significantly (p=.02) higher than that (M=62.69) of face-to-face lecturing at the significance level .05. This indicates that clerks through online training obtained significantly higher learning outcomes than those through face-to-face lecturing. Consequently, the hypothesis “Online training leads to better learning outcomes than face-to-face lecturing in banks” is accepted.

**Discussion and Conclusion**

The findings of this study are generally consistent with previous studies. Rozell and Gardner (2000) claimed that emotions and motivations might exert a key influence on the effectiveness of online learning. The findings from this study also concur with prior theory and research related to emotion,
motivation, and learning strategy (Pekrun, 2006) and extend that literature to an investigation at workplaces.

Technologies in education, although fully studied in educational contexts, remain sparsely studied at workplaces. It might be a wise decision to combine educational technologies with pedagogies at workplaces in future studies.

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References


