STUDENTS' PERCEPTIONS AND IMPACT OF AN INTERACTIVE BOARD GAME IN LEARNING BASIC CHINESE CHARACTERS AMONG NON-NATIVE SPEAKERS

What is...?

The Mandarin Board Game

The Research

Discussion

Conclusion
Learning Mandarin as Foreign Language

- non-native / multi-ethnic
- challenges
- solution?

Theory 1

Theory 2
Koster’s Theory of Fun (2005)

- Fun from games comes from learning, comprehension, and mastery.
- An environment where students can learn and have no pressure from consequence.
- What do games teach students?
Learning Mandarin as Foreign Language
- non-native / multi-ethnic
- challenges
- solution?

Theory 1

Theory 2
Vygotsky’s Sociocultural Theory (1978)

- theory focuses how adults and peers influence individual learning,
- how cultural beliefs and attitudes affect how learning takes place.
- Zone of Proximal Development
- Socialization and Play
Learning Mandarin as Foreign Language

- non-native / multi-ethnic
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- solution?

Theory 1

Theory 2
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What is...?
Objective

- interesting way.
- conducive learning environment
- Chinese characters
- 5 categories
- Incorporates technology.
- Uses of animation
Objective

- interesting way.
- conducive learning environment
• cards
• fishing rods
• dice
• sand timer
• booklets
Objective

- interesting way.
- conducive learning environment
Rules

- individual / team
- role the dice to determine the theme for a round
- get as many cards as they can within the time given
Objective

- interesting way.
- conducive learning environment
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What is...?
Methodology

Part 1

Part 2
Methodology
- Questionnaire
- Pre & Post test
- Quantitative
Methodology
STUDENTS’ PERCEPTIONS AND IMPACT OF AN INTERACTIVE BOARD GAME IN LEARNING BASIC CHINESE CHARACTERS AMONG NON-NATIVE SPEAKERS

What is...?
The Mandarin Board Game
The Research
Discussion
Conclusion
The impact?
Perceptions

Content & Design

Benefits
<table>
<thead>
<tr>
<th>Item</th>
<th>SDA (%)</th>
<th>DA (%)</th>
<th>N (%)</th>
<th>A (%)</th>
<th>SA (%)</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I find the content of the game to be appropriate.</td>
<td>1.6</td>
<td>0</td>
<td>6.3</td>
<td>50.8</td>
<td>41.3</td>
<td>4.3</td>
<td>0.733</td>
</tr>
<tr>
<td>2. I find the card units to be appropriate.</td>
<td>1.6</td>
<td>0</td>
<td>4.8</td>
<td>58.7</td>
<td>34.9</td>
<td>4.25</td>
<td>0.695</td>
</tr>
<tr>
<td>3. I find the font size of Chinese characters is clear and appropriate.</td>
<td>0</td>
<td>3.2</td>
<td>4.8</td>
<td>41.3</td>
<td>50.8</td>
<td>4.4</td>
<td>0.735</td>
</tr>
<tr>
<td>4. I like the fact that every card comes with the romanised pronunciation and meaning.</td>
<td>1.6</td>
<td>0</td>
<td>6.3</td>
<td>44.4</td>
<td>47.6</td>
<td>4.37</td>
<td>0.747</td>
</tr>
<tr>
<td>5. I like the fact that every card comes with a video clip.</td>
<td>1.6</td>
<td>1.6</td>
<td>6.3</td>
<td>46</td>
<td>44.4</td>
<td>4.3</td>
<td>0.796</td>
</tr>
<tr>
<td>6. I find the content of the video clip to be appropriate.</td>
<td>1.6</td>
<td>3.2</td>
<td>4.8</td>
<td>49.2</td>
<td>41.3</td>
<td>4.25</td>
<td>0.822</td>
</tr>
<tr>
<td>7. I find that the background music in the video clip is appealing.</td>
<td>1.6</td>
<td>1.6</td>
<td>11.1</td>
<td>55.6</td>
<td>30.2</td>
<td>4.11</td>
<td>0.785</td>
</tr>
<tr>
<td>8. I find that the board game appeals to my learning interests.</td>
<td>1.6</td>
<td>1.6</td>
<td>3.2</td>
<td>55.6</td>
<td>38.1</td>
<td>4.27</td>
<td>0.745</td>
</tr>
<tr>
<td>9. I find that the overall quality of the game is good.</td>
<td>1.6</td>
<td>1.6</td>
<td>4.8</td>
<td>47.6</td>
<td>44.4</td>
<td>4.32</td>
<td>0.779</td>
</tr>
<tr>
<td>10. I like this Mandarin board game.</td>
<td>1.6</td>
<td>3.2</td>
<td>4.8</td>
<td>42.9</td>
<td>47.6</td>
<td>4.32</td>
<td>0.839</td>
</tr>
<tr>
<td>11. The game meets my needs in learning Chinese characters.</td>
<td>1.6</td>
<td>1.6</td>
<td>3.2</td>
<td>44.4</td>
<td>49.2</td>
<td>4.38</td>
<td>0.771</td>
</tr>
</tbody>
</table>
### Benefits

<table>
<thead>
<tr>
<th>Item</th>
<th>SDA (%)</th>
<th>DA (%)</th>
<th>N (%)</th>
<th>A (%)</th>
<th>SA (%)</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I think the game can help me learn and memorise the Chinese characters effectively.</td>
<td>1.6</td>
<td>0</td>
<td>7.9</td>
<td>44.4</td>
<td>46</td>
<td>4.33</td>
<td>0.762</td>
</tr>
<tr>
<td>2. I find the game strengthens my motivation towards learning Chinese characters.</td>
<td>1.6</td>
<td>0</td>
<td>7.9</td>
<td>46</td>
<td>44.4</td>
<td>4.32</td>
<td>0.758</td>
</tr>
<tr>
<td>3. I find the game strengthens my motivation towards learning Mandarin.</td>
<td>1.6</td>
<td>0</td>
<td>9.5</td>
<td>42.9</td>
<td>46</td>
<td>4.32</td>
<td>0.779</td>
</tr>
<tr>
<td>4. I find the game makes the learning environment relaxing and fun.</td>
<td>1.6</td>
<td>1.6</td>
<td>4.8</td>
<td>38.1</td>
<td>54</td>
<td>4.41</td>
<td>0.796</td>
</tr>
<tr>
<td>5. Understanding the Chinese culture helps me learn Chinese characters more effectively.</td>
<td>1.6</td>
<td>0</td>
<td>11.1</td>
<td>50.8</td>
<td>36.5</td>
<td>4.21</td>
<td>0.765</td>
</tr>
<tr>
<td>6. I like the fact that the game promotes interaction among students.</td>
<td>1.6</td>
<td>0</td>
<td>6.3</td>
<td>52.4</td>
<td>39.7</td>
<td>4.29</td>
<td>0.728</td>
</tr>
<tr>
<td>7. The interactions with friends help me gain knowledge.</td>
<td>1.6</td>
<td>0</td>
<td>1.6</td>
<td>50.8</td>
<td>46</td>
<td>4.4</td>
<td>0.685</td>
</tr>
<tr>
<td>8. The way to play the game suits my way of learning.</td>
<td>1.6</td>
<td>0</td>
<td>7.9</td>
<td>49.2</td>
<td>41.3</td>
<td>4.29</td>
<td>0.75</td>
</tr>
<tr>
<td>9. Winning the game, I feel confident that I was learning.</td>
<td>1.6</td>
<td>0</td>
<td>12.7</td>
<td>42.9</td>
<td>42.9</td>
<td>4.25</td>
<td>0.803</td>
</tr>
<tr>
<td>10. I find that game-based learning is very good, but it increases my learning burden.</td>
<td>1.6</td>
<td>4.8</td>
<td>20.6</td>
<td>41.3</td>
<td>31.7</td>
<td>3.97</td>
<td>0.933</td>
</tr>
</tbody>
</table>
## Results

<table>
<thead>
<tr>
<th>Value</th>
<th>Differences</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>T</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese Characters</td>
<td>Before</td>
<td>70</td>
<td>14.47</td>
<td>4.79</td>
<td>-8.038</td>
<td>69</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>After</td>
<td>70</td>
<td>18.86</td>
<td>1.48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p < 0.001, M = mean, SD = standard deviation**
Students and The Games
Conclusion

- fun & effective
- motivation
- interactions
- sustainability
- technology