Learning Computer with Virtual Sign Animated Pedagogical Agents

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Learning Computer with Virtual Sign Animated Pedagogical Agents

Presentation Topics

1. Introduction
2. Design and Development
3. Evaluation
4. Results
5. Conclusion

Abstract

This study investigates the use of Virtual Sign Animated Pedagogical Agents (VSAPAs) in providing computer and communication advice in response to deaf/hard of hearing (deaf/hh) students' activities in the computer-based learning. The primary analysis consisted of two features: 1) testing the VSAPA persona, and 2) conducting the usability test of VSAPA learning environment. The findings indicated that their interactions with the
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**Problem**

- Opportunity for deaf students to learn Thai Sign Language (TSL) is limited.
- Few instructors understand effective ways to educate deaf students.

1. Introduction

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**Opportunity**

- Multimedia resources now exist
- Computer-based technologies
- Increasing access to knowledge
- Promoting learning

1. Introduction
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Related Work
- Synthesis sign system with "DataGlove"
- VisiCast
- Simon
- Tessa
- Animated GIF, MOV
- Vcom3D
- Vsign

1 Introduction

2 Design and Development
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2 Design and Development

3 Evaluation
3 Evaluation

Usability Testing

Table 1 Task Completion Times for tasks 1, 2 and 3
- Participants (no. 1-7) are D/H students.
- Participants (no. 8-15) are D/H assistant teachers.

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<tr>
<th>Participant</th>
<th>Task 1</th>
<th>Task 2</th>
<th>Task 3</th>
<th>Total Time</th>
<th>Note</th>
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| Total of assists | 0 | 0 | 0 | 0 |      |
| Total | 0 | 0 | 0 | 0 |      |
| Total unsuccessful | 0 | 0 | 0 | 0 |      |
| Effectiveness | 100% | 93.33% | 90.00% | 73.33% | % Completely successfully Participants |
| Efficiency | 89.23% | 97% | 92.13% | 91.98% | % Mean Task Time |
4 Results

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System Usability Scale (SUS)

Participants' scores on the System Usability Scale (SUS) are shown in the bar chart. The scores range from 0 to 100, with higher scores indicating better usability.

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VSAPA Persona Evaluation

The bar chart illustrates the evaluation of VSAPA personas. Each persona is rated on a scale from 0 to 5, with higher scores indicating higher evaluation. The ratings are as follows:

1. Facilitating Learning: 4.00
2. Creative: 3.50
3. Human-like: 3.00
4. Engaging: 4.50

The mean score is also displayed for each persona.
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5 Conclusion
5 Conclusion
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3D Sign Language

5 Conclusion
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5 Conclusion

Fun
5 Conclusion
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5 Conclusion

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5 Conclusion
After determining its usability, we will conduct an experiment to assess the learning outcome.