Introduction

FOCUS

... entails processes that involve locating, selecting, evaluating, and integrating information from various sources and is initiated to fulfill an information need.


Previous Research

Analysis
Introduction

PREVIOUS RESEARCH

Instruction


FOCUS

• Effect of using contemporary instructional design models to design instruction(al support) for learning IPS

THIS STUDY

• Is the Four-Component Instructional Design Model (4C/ID-model) suitable to design effective and efficient IPS-instruction?
Introduction THIS STUDY

• Is the Four-Component Instructional Design Model (4C/ID-model) suitable to design effective and efficient IPS-instruction?

Overview

• Introduction
• Method
• Results
• Discussion

Introduction THIS STUDY

• Measure for Effectiveness
  – Student grades
  – Studiability
• Measure for Efficiency
  – Time on task
Method

- Participants
  - 49 (8 male) Premaster students Educational Sciences of the Open University
- Materials
  - 4.3 EC Course (120 hours)
  - SEIN (Student Evaluation Instrument; OU)
- Procedure

Method MATERIALS: COURSE

- Whole task approach
- Completion strategy
- Backward fading

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<tr>
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<tbody>
<tr>
<td>Define question</td>
<td>Worked</td>
<td>Worked</td>
<td>Worked</td>
<td>Worked</td>
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<tr>
<td>Search for sources</td>
<td>Worked</td>
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<tr>
<td>Select sources</td>
<td>Worked</td>
<td>Executed</td>
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<tr>
<td>Process information</td>
<td>Executed</td>
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<td>Executed</td>
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<tr>
<td>Present information</td>
<td>Executed</td>
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Overview

• Introduction
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Results EFFECTIVENESS - GRADES

• Mean 6.98 (SD=.93)
• Mode and median 7
• Range 6 to 10
• Skewness 1.024

Results EFFECTIVENESS - STUDIABILITY

<table>
<thead>
<tr>
<th>Focus</th>
<th>Mean</th>
<th>SD</th>
<th>Mode</th>
<th>Skewness</th>
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<tbody>
<tr>
<td>Course, overall rating</td>
<td>7.44</td>
<td>.94</td>
<td>8</td>
<td>-.53</td>
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<td>Learning tasks</td>
<td>7.35</td>
<td>1</td>
<td>7</td>
<td>- .66</td>
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<td>Assessment task (Learning Task 5)</td>
<td>7.57</td>
<td>1.04</td>
<td>8</td>
<td>-.51</td>
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<td>Supportive information (theory / books)</td>
<td>7.06</td>
<td>1.2</td>
<td>7</td>
<td>- .44</td>
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<td>Teacher support (i.e., cognitive feedback)</td>
<td>7.90</td>
<td>1.28</td>
<td>9</td>
<td>-.25</td>
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<td>Digital learn and work environment</td>
<td>7.42</td>
<td>.90</td>
<td>7</td>
<td>.34</td>
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<td>Forum</td>
<td>6.15</td>
<td>1.46</td>
<td>7</td>
<td>-1.32</td>
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</table>

Results EFFECTIVITY – TIME ON TASK

• < 75  10.42%
• 75-100 14.58%
• 100-125 35.42%
• 125-150 27.08%
• > 150 12.50%
### Results

**EFFECTIVITY – TIME ON TASK**

- < 75: 10.42%
- 75-100: 14.58%
- 100-125: 35.42%
- 125-150: 27.08%
- > 150: 12.50%

### Overview

- Introduction
- Method
- Results
- Discussion

### Discussion

- Using 4C/ID for designing IPS-instruction is promising; it is effective. However:
- The ‘4C/ID-course’ was hard for some students, which might relate to (a lack of) prerequisite knowledge. Individual differences should be taken into account when designing the course.

### Discussion

**FUTURE RESEARCH**

- Scaling up:
  - Pretest-Posttest Control Group Design Formats
  - Longitudinal designs

### Questions

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