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Roles as structuring tool in online discussion groups

Studying students’ role performance and the impact on knowledge construction.

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- First-year university course Instructional Sciences
- Asynchronous discussion groups of 10 students
- To foster students’ processing of the learning content
4 discussion themes of 3 weeks each

- Theme 1
- Theme 2
- Theme 3
- Theme 4

Conditions with role assignment

Conditions without role assignment
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5 roles
Starter – Moderator – Theoretician
Source searcher – Summariser
Roles

**Starter**: start off the discussion, give new impulses every time the discussions slack off

**Moderator**: monitor the discussions, stimulate other students, ask critical questions, inquire for opinions

**Theoretician**: bring in theory, ensure all relevant theoretical concepts are used in the discussion

**Source searcher**: seek external information on the topics, go beyond the scope of course reader

**Summarizer**: post interim summaries, make provisional conclusions, post final summary
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2 & 3
Data

Discussion transcripts
20 discussion groups
Transcripts of the entire 12 week discussion period
4 discussion themes of 3 weeks each
About 4818 messages or 60450 lines of text
Do students enact the roles they are assigned?
<table>
<thead>
<tr>
<th>Role</th>
<th>Source</th>
<th>Theory</th>
<th>Summary</th>
<th>Moderation</th>
<th>New points</th>
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<tbody>
<tr>
<td>Source Searcher</td>
<td>+++</td>
<td>=</td>
<td>-</td>
<td>-</td>
<td>= /</td>
</tr>
<tr>
<td>Theoretician</td>
<td>=</td>
<td>+++</td>
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</tr>
<tr>
<td>Summarizer</td>
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<td>=</td>
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<tr>
<td>Moderator</td>
<td>=</td>
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<td>+</td>
<td>+ + +</td>
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<tr>
<td>Starter</td>
<td>=</td>
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<td>+ + +</td>
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<tr>
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<td>=</td>
<td>+</td>
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<td>- - -</td>
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</tbody>
</table>
Conclusion of the first study

- All students perform their roles
- Some activities receive more attention and some activities less (dependent of the different roles)

“Assigning roles is a fruitful scripting approach”
Is there an impact of the moment of introduction of the role support on students’ knowledge construction through social negotiation?
Aim of the second study

• Social knowledge construction

“Do roles have an impact?”

“Does the moment in time has an impact?”
Design

Theme 1

Theme 2

Theme 3

Theme 4
Design
Gunawardena, Lowe, & Anderson (1997)

Level 1: sharing/comparing of information
Level 2: the discovery and exploration of dissonance or inconsistency among ideas, concepts or statements
Level 3: negotiation of meaning / co-construction of knowledge
Level 4: testing and modification of proposed synthesis or co-construction
Level 5: agreement statement(s) / applications of newly constructed meaning
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Conclusion of the second study

• Role/No-Role condition reaches significantly higher levels of knowledge construction in two themes
• Even when the role support is cut back

“The moment of role introduction is important: introduce roles at the start”
What is the differential impact of the different roles on the level of social knowledge construction reflected in students’ messages?
Aim of the third study

• Roles seem to have an impact on social knowledge construction
• Which roles have an impact

“Differential impact of the roles?”
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Conclusion of the third study

<table>
<thead>
<tr>
<th>Role</th>
<th>Impact</th>
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<tbody>
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<tr>
<td>Theoretician</td>
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<td>+++</td>
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<tr>
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<td>+</td>
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<tr>
<td>Starter</td>
<td>=</td>
</tr>
<tr>
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</tr>
<tr>
<td>No role condition</td>
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</table>

“There is a differential impact of the different roles”
Conclusion

“Assigning roles is a fruitful scripting approach”
“The moment of role introduction is important: introduce roles at the start”
“There is a differential impact of the different roles”
Conclusion

“Assigning roles is a fruitful scripting approach”

“The moment of role introduction is important: introduce roles at the start”

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