Student Reactions to Receiving Various Forms of Online Help

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Types of Help

- Autonomy-oriented help
- Dependency-oriented help

E.g., Nadler, 1997, 2002
Expert vs. Peer Help
(Alvarez & Van Leeuwen, 2011)

• Receiving autonomy-oriented help led to more positive outcomes (e.g., greater self-competence) compared to receiving dependency-oriented help.

• However, receiving autonomy-oriented help from a peer made participants feel more negatively toward the helper.
Current Study

• 2 (source of help: expert vs. peer) x 3 (type of help: autonomy, dependency, blended)

• 155 undergraduate participants; believed they were pilot-testing an online version of a logic course
Method

- Syllabus
- Lecture videos and handout
- Homework set (with access to discussion board)
- Questionnaire
- Quiz
Discussion Board Help
Manipulation

• Autonomy-oriented help (student)

Part 3, section 2
Can someone help with this question? The one about Bill?

HINT: Separate the premises from the conclusion and translate them into symbolic language. Construct a truth table. Remember: A valid argument is one in which the truth of the conclusion follows from the truth of the premises. Where all the individual premises are T (true), the conclusion must be T (true). This is what you should assess with the truth table.
Discussion Board Help
Manipulation

- Dependency-oriented help (student)

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Answer: YES.
Discussion Board Help
Manipulation

• Blended help (student)

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First, separate the premises from the conclusion and translate them into symbolic language.

\[ P \rightarrow Q \]
\[ \sim P \rightarrow R \]
\[ P \lor \sim P \]
\[ Q \lor R \]

Construct a truth table. Remember: A valid argument is one in which the truth of the conclusion follows from the truth of the premises. Where all the individual premises are T (true), the conclusion must be T (true). This is what you should assess with the truth table.

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Answer: YES. It is valid.
Questionnaire

• Manipulation checks
• Reactions to help
• Reactions to helper
• Learning and performance
• General questions about discussion board use and help-seeking
E.g., Manipulation Check

- “When I requested help, I felt that I received an explanation, though not an answer to the problem.”
Results

• “I like the [student/teaching assistant] who provided me with help.”

Significant main effect of help source, $F(1,149) = 3.95$, $p = 0.02$
Significant main effect of help type, $F(2,149) = 4.61$, $p = .03$
Results

• “The [student/teaching assistant] wanted to assist me in finishing the problem set.”

Significant main effect of help type, $F(2,149) = 4.674, p = 0.01$
Results

• “The [student/teaching assistant] wanted me to truly learn the material.”

Significant main effect of help type, $F(2,149) = 10.853, p < .001$
Results

- "The help I received made me feel [annoyed/frustrated/angry]."

Significant main effect of help type, $F(2, 149) = 5.302, p = .006$
Results

• “The help that I received enabled me to successfully learn the material.”

Significant main effect of help type, $F(2,149) = 3.38, p = .04$
Results

• “The help I received often gave me the feeling that I was **not** capable of solving the problems on my own.”

![Bar chart showing agreement levels for different teaching methods](chart.png)

Significant main effects; significant interaction, $F(2,149) = 3.81, p = .024$
Take-away Message

• Although previous research has suggested that receiving autonomy-oriented help from peers can lead to negative consequences, our results suggest that students may be particularly receptive to receiving blended help from peers.

• We could perhaps do more to encourage our students to provide this type of help to each other on our course discussion boards.