



A systematic review of effective methods and strategies for improving argumentation skills in undergraduate students in higher education

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Executive Summary

Conclusions

The most important finding was that, despite the well-developed theoretical literature in argumentation, there is a lack of retrievable, large, well-designed, well-reported randomised controlled trials or controlled trials in the field. Specifically, in the period 1990 to the present there are only a few studies with comparison groups that evaluated methods and strategies to improve argumentation in undergraduate students in HE. The lack of randomised controlled trials or controlled trials undertaken in the UK is particularly notable.

Some substantive conclusions can be tentatively drawn from four studies, although it should be noted that each of the conclusions is only supported by one study: Training in critical thinking looks promising both for the conventionalisation of the language of argumentation in writing, and for the greater use and appropriate positioning of argumentation contents in writing (Bensley and Haynes, 1995). ·A constraint-based argumentation scaffold can improve both group argumentation and individual argumentation (Cho and Jonassen, 2002). ·The use of goal instruction to persuade and generate reasons in argumentation in an interactive context can improve students' argumentation by increasing argumentation claims, contingent claims, opposition and debate (Nussbaum, 2005). ·Argumentation training can enhance specific critical thinking skills: ability to discern weak arguments, improved self-perception of argumentation effectiveness and decreased verbal aggressiveness in argumentation encounters (Sanders et al, 1994).

Recommendations

Although the studies in the in-depth review concluded that some strategies and methods were effective in improving argumentation skills in undergraduate students, strong recommendations for practice cannot be made. We suggest that such interventions look promising but should be adopted with caution, given the variable quality of the studies involved and the fact that each strategy or method was evaluated in only one study.

A large, rigorously designed, conducted and reported, randomised controlled trial in a UK HE setting is recommended. This could investigate the effectiveness of one or

more of the strategies identified in this systematic review as promising for the improvement of argumentation skills in undergraduate students.