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The Value of Using Roles while Collaboratively Writing Synthesis Texts in University

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Abstract: Writing synthesis texts fosters students' writing skills as well as their conceptual learning. Writing collaboratively can improve synthesis text quality. This poster presentation focuses on an intervention study aimed at improving the writing quality in collaborating groups by means of guidance through roles. This proposal focuses on the background and design of the study, and we will present preliminary findings at the conference.

Keywords: collaborative learning, roles, synthesis writing, higher education

Theoretical background

In the current knowledge-based society, university students are required to initiate and direct their own learning. They should be able to produce knowledge based on reliable sources, and externalize that knowledge in, for example, a synthesis text. Synthesis writing is characterized by recurring and alternating reading and writing (Vandermeulen et al., 2020). It is an effective form of writing to learn, and subsequently an often provided task at university. Therefore, students should be taught synthesis strategies, through which their writing skills as well as their conceptual learning can be improved. This way, learning to write and writing to learn are connected in synthesis tasks (van Ockenburg et al., 2019).

When writing, students need to keep the audience in mind to achieve the text's communicative goal. In this study, the goal of the text is to inform the reading audience. Students with less experience in writing tend to overlook the impact of their writing on the reader, leading to difficult to understand texts (Bereiter & Scardamalia, 1987). Collaborative writing has the potential to overcome this problem, since it increases students' audience awareness (Storch, 2018).

However, writing a synthesis text collaboratively is not an easy task, since it involves two components. First of all, students need to learn how to write a synthesis text. Second, they need to know how to collaborate and how to build on each other. In view of the first component, students need strategy instruction: they need to learn how to select, organize and connect the information (van Ockenburg et al., 2019). Furthermore, the writing task can be pre-structured by means of a list of key elements a particular synthesis text should contain (Weinberger et al., 2005). In view of the second component, students need support to collaborate efficiently, which can be provided through an explicit role structure (Wang et al., 2017). Roles are prescribed functions that guide individual behavior and group collaboration. It is a way to distribute tasks and responsibilities in collaborative groups, supporting interdependence and at the same time individual accountability (De Wever & Strijbos, in press; Slavin, 1995). Students need to be additionally scaffolded regarding how to carry out the role (Rummel & Spada, 2005), for example by means of role descriptions. The role descriptions explain the function of the role, and can provide some examples of sentence openers or question stems guiding students in what to possibly say within a specific role (Weinberger et al., 2005).

Problem statement

As illustrated above, synthesis writing is an important task at university. However, students with little experience in writing may not be sufficiently aware of the audience, resulting in difficult to understand texts. Writing collaboratively seems to be a solution, if students receive strategy instruction regarding how to write a synthesis text. In addition, supporting students by assigning them roles throughout the collaborative writing process may reinforce the process and subsequently the quality of the synthesis text. A reason for this is that roles can foster more balanced participation and this way indirectly impact the quality of the writing product (Olson et al., 2017). Examples include motivating others and asking for contributions (Wise et al., 2012). Moreover, roles can hold responsibilities directly related to the text which may impact the quality of the writing product directly. Examples are checking for the presence of key elements in the text or improving clarity. This leads to the following research question: What is the added value of roles in addition to strategy instruction on the quality of university students' synthesis texts?

Methods

A randomized quasi-experimental design was set up with one experimental condition and one control condition. During the intervention, 41 groups of three university students in the third year of their bachelor's degree taking a course on academic writing wrote two synthesis texts. The first was an abstract of a provided research article, the second was a conclusion of another provided research article. These synthesis texts are comparable in terms of type, communicative goal and audience. For the second text, groups of students were randomly assigned to either a control condition (receiving only strategy instruction), or an experimental condition (receiving strategy instruction and roles guiding them through the collaboration process).

The strategy instruction comprised instruction on selecting, organizing and connecting information, in line with the design principles for synthesis writing interventions by van Ockenburg et al. (2019) and a list comprising key elements of an abstract and a conclusion respectively. Students in the experimental condition were in addition asked to distribute the following roles in their group as they saw fit. The *initiator* gives direction in terms of task division, planning of the synthesis text and time-management. The *moderator* ensures consensus, asks everyone's opinion, compromises and summarizes throughout the process. The *proof reader* reads and revises the text from the target audience's perspective, and checks if all key elements are present in the text. These roles are partially based on research by Wise et al. (2012). The students received a description of the functions and examples of sentence openers as additional scaffolds for the three roles.

Text quality will be measured by means of pairwise comparisons based on the used design principles, i.e. presence of key elements (selecting), logical order (organization), and degree of integration (connection). Differences in the quality of the synthesis texts between the two conditions will be analyzed. Detailed collaboration processes of a total of eight groups in the experimental and control condition will be captured for further investigation.

Points of discussion

Key findings will be presented during the conference. Next to the research question, i.e. the added value of roles on synthesis text quality, points of discussion will comprise the selection of the roles, the measurement of synthesis text quality, the limitations of the current study and the next steps following this study.

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