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Presenting a Research Design

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COLWRIT – Collaborative Online Writing in Google Docs: Presenting a Research Design

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Abstract: Various online collaborative writing tools have emerged giving students new opportunities when co-producing texts. The aim of this work-in-progress paper is to present the preliminary hypotheses and findings of an on-going research project at Aalborg University, Denmark, which explores university students’ uses of collaborative writing tools like Google Docs when doing collaborative project work. The research project has a special focus on the various effects on the collaboration process of students’ various usage of the commenting functions of online writing tools.

Keywords: peer learning; response-giving, academic writing, data logging, online collaborative writing, project work

1. Introduction

Online collaborative writing tools offer possibilities and pose challenges to students’ development of information literacy and academic writing skills. The present paper reports from an on-going research project on these tools’ effects on students’ collaborative writing processes. The project combines data logging methods with qualitative inquiry, and offers insight in an emerging field of study. The main research question to be explored is: How is online writing in Google Docs organised and negotiated by students in higher education in relation to collaborative project work?

2. Related work

Zhou et al. report from studying Google Docs in a collaborative writing activity among university students, that Google Docs were considered a useful tool for group work, which altered the means of communication. When collaborating through Google Docs, students became less dependent on Facebook and text messaging, but continued using e-mail as their primary communication method (Zhou et al. 2012). Zhou et al. recommend for further research to monitor groups’ actual usage of Google Docs and evaluate the use of editing comments during the activity, in order to explore the collaboration processes.

Knain (2009) explored students’ text development processes by analysing the editing history of co-produced online documents. He identified several approaches to text co-production, and found students to be adding text more than revising the texts. Previous studies, as well as students’ projects on the use of collaborative writing tools (Kraglund et al. 2013), point out that giving and receiving response is crucial for improving the quality of written work. This research project thus focuses on how the use of Google Docs’ tools for giving and receiving response are negotiated and practiced among students. A number of hypotheses in relation to this are being explored:

- We assume that students’ negotiations on and use of the comment and discussion functions may influence the quality of their academic writing.
- We assume that students’ use of the comment and discussion functions may influence their identities as students (how they are positioning themselves and how they are being positioned).
- We assume that students with varying educational backgrounds might encounter different challenges when learning to work and write collaboratively.
- We assume that the affordances of producing text through online collaborative writing tools will affect the phases of writing and students’ understanding of public or private status of unfinished pieces of text.

The research project will explore the use of Google Docs at various Master’s level programmes at Aalborg University, Denmark. The project applies a mixed methods approach combining data logging of Google Docs activities with observations and group interviews of students using Google Docs. For a specific student group their use of an online collaborative writing tool is just one among many features of a complex working process.
Taking this into account, students’ use of Facebook in relation to their work and collaboration processes will also be captured and analysed.

3. Theoretical perspectives

The research design is guided by the following theoretical perspectives and assumptions on collaborative online writing.

3.1 Collaborative writing and critical reflection

It is a common assumption that reflective thinking leads to deeper learning processes, and that critical reflection engages students in *evaluative thinking about their own ideas and processes* (Higgins et al. 1992). Furthermore, it is assumed that learning through collaboration stimulates critical reflection, because it provides students with *the opportunity to articulate their reasoning and perhaps become aware of shortcomings and strategies they did not think of on their own* (ibid., p. 53).

In this study, students’ collaboration can partly be observed through their use of commenting functions in online writing tools. Thus, we assume that this technical feature may enable, or even encourage, students to engage in collaborative learning processes by reflecting and responding upon the works of others. Tracks of commenting in the collaborative documents will be perceived as virtual dialogues that reflect students’ meta-communication during the writing of academic texts. The activity of commenting or creating meta-dialogues can be examined by textual analysis as social and intellectual negotiation on different levels:

- negotiation and development of inter/subjectivity: Formation of identities, roles and positions reflected through the commenting’s implicit representation of selves and others.
- negotiation of understandings of the collective task: Commenting on aims, focuses and dispositions of the group work.
- negotiation and development of knowledge: Critical thinking through reflecting upon and questioning one’s own work as well as the work of others.
- negotiation of final form and content of the project: Commenting on textual structures, style and phrases throughout the writing process.

Analysis of the peer commenting and feedback within these four levels of negotiation will reveal insights into stages and strategies in collective academic writing processes. The students’ writing strategies will be analysed based on Lowry et al.’s (2004) taxonomy, and we will explore the degree to which students are engaged in *collaboration*, i.e. learning through social and intellectual interaction, or *cooperation*, i.e. piecing together individual contributions to a joint task without notable reflection or negotiation. Do the students discuss each other’s perceptions and ideas? Do they merely accept others’ contributions without questioning? Or do they mainly promote their own perspectives? Put in Gregory Clark’s words: Do they act like *tourists*, who never leave their own mental *territory*, or do they interact like *travellers* by *transcending* the individual and the familiar to explore new grounds together? (Clark 1998).

In the study of Kraglund et al., some students’ statements seem to suggest that online commenting actually invites *travelling together* through collaborative critical thinking. They perceive the commenting function as “suitable for questioning and responding critically on each other’s texts”, which make “both parts reconsider their own thoughts” (Kraglund et al. 2013, Appendix 2, p. 23). The commenting feature can cause changes to one’s collaborative strategy by for instance “continue the writing of some piece, where I otherwise wouldn’t normally have interfered”, as a student described (ibid., p. 47).

The study will apply a critical approach to the collaborative impact of online commenting activities. According to Higgins et al. (1992), critical reflection depends on whether the respondent takes a *checklist approach* or an *interactive approach* when commenting on the work of others (ibid., p. 67). Responding through checking facilitates simple *awareness*, whereas an interactive peer response will motivate *critical thinking*. We expect that signs of critical reflection can be detected in connection to first comments (provider) as well as second comments (receiver), depending on whether the intention of the comments is a matter of 1) understanding the other’s perspective, 2) correcting the other’s understanding, or 3) *travelling* together through mutual development of knowledge.
3.2 Keeping face across boundaries

One of the key findings from the student project was reluctance among students toward presenting and sharing their drafts with their group members. Several students described how they preferred not to perform their actual writing in the shared Google document. Instead, they would first compose their text in Word before pasting it into the shared document. As a student described this practice: “it’s a bit daunting to sit and complete something in Google Docs, because people can monitor your drafts” (Kraglund et al. 2013, p. 52). This reluctance toward sharing unfinished work and the feeling of being monitored can be understood through Goffman’s notion of “face” and the related concepts of “front” and “back stage” (Goffman 1959). In this way, Google Docs makes it possible for others to monitor and participate in the writing process, contrary to co-operative tools where drafts are private and hence backstage before shared. Based upon this preliminary finding, we aim to further explore how, when and why students decide to (or not to) share their drafts and other types of unfinished work.

4. Research design

The research design of the study will be based on a mixed methods approach, which combines quantitative and qualitative research methods (Denzin 2010; Johnson and Onwueguzie 2004). We will follow students from two master programmes, one within humanities and one within technical sciences. Selecting one class at each programme, the data production will involve a survey of all students in the participating classes, focusing on three aspects: 1) the students’ use and perception of technologies such as Google Docs and Facebook for online writing, 2) the students’ experience with collaborative writing processes, and 3) the students’ educational backgrounds and experience with academic writing.

Based on findings from the survey, we aim to study the collaboration and negotiation processes of one to three student groups within each of the two programmes. In order to map significant patterns in the groups’ collaboration, we aim to document their online and offline working processes. All involved participants will be secured anonymity, and agreed consent will be obtained from all informants in relation to data logging and observations.

Methods and approaches to producing online data includes data logging of writing activities in Google Docs, which will be subjected to data analysis in relation to the revision history and the students’ use of the comment function. As we are likely to collect a substantial amount of revision history, the analysis will be based on summary and visualisation tools developed by Southavilay et al. (2013). Following this, we will conduct content analysis of selected examples of the students’ writing and how these are related to the use of the comment function. We also aim to log data on the students’ use of Facebook for organising their writing activities through the ‘Digital Footprints’ facebook app.

Methods and approaches regarding offline data involve observations of the students’ collaborative writing processes, primarily based on field notes and video recordings of project group meetings. Selected groups of experienced university students will be involved as explorers who observe and interview the students. Focus of the analysis will be on the social interaction and negotiation that take place during the collaborative writing practices, which involve mutual positioning and choice of specific strategies for group work in relation to both oral and written communication. Other types of data may be relevant in relation to the students’ group meetings - e.g. sound recordings of group discussions and photos of students’ handwritten notes or whiteboard drawings.

5. Conclusion

We expect from this study to develop the understanding of groups’ collaboration and negotiation processes in relation to creating and coordinating a shared text. We expect to shed light on how the commenting function may affect the students’ approach to such negotiation processes, and to specify an understanding of how different online and offline resources (e.g. Google Docs, whiteboards, handwritten notes, Facebook etc.) interplay in relation to collaborative writing, and how various usage patterns and student roles develop. We expect to find a significant variation in the students’ approaches to collaborative online writing. A further aim of the study is to be able to develop pedagogical guidelines for the use of Google Docs in relation to project work and collaborative online writing processes.
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References


