



Summary writing from aural input: (How) can an online learning module help to foster students' skills for this complex task?

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Abstract

The experimental case study presented here explores the use of CALL (Computer-Assisted Language Learning) for the complex task "writing a summary from aural input". This is a common task in Applied Language Studies bachelor programmes that combines several language and cognitive skills and is therefore likely to cause cognitive overload. The aim is to find out to what extent students can be supported in the management of this overload by an online learning module which scaffolds them and helps them develop the necessary language use strategies.

In the experiment, 10 students in the Applied Linguistics bachelor programme (CEF-level B2-C1) at University College Ghent were observed while working on two tasks in an online learning module (Deutsch-Uni Online). Their activities were recorded using the Morae Software that allows for synchronous registration of audio (think-aloud protocols) and video, combined with screen and keystroke logging.

As strategy use is of paramount importance for the execution of a complex task and varies considerably between individual students, it was one of the main concerns in this study. The students' actual strategy use was observed and matched against their self-reported use of strategies as obtained from a pre-test questionnaire which is inspired by Oxford's Strategy Inventory of Language Learning (SILL) [3]. An interesting finding is that strategy use in an online environment is also influenced by the level of online and pc literacy. Even among this relatively homogeneous group of "Net-geners", considerable differences at this level were found.

1. Introduction

How can a complex task such as writing a summary from aural input in a FL (foreign language) be effectively supported by an online learning environment? How can this complex task be broken up into measurable units for experimental research? These are the two key questions of the experimental study being presented here. Writing a coherent summary from aural input is a common task in Applied Language Studies bachelor programmes which combines several language and cognitive skills. From a pedagogical point of view, mediating the "overwhelming cognitive overload" in summarizing tasks is important to maximize student performance [1]. To what extent can an online learning module play this mediating role by carefully scaffolding the student, while guiding him in the development / discovery of FL use strategies? This case study focuses on listening comprehension, summarizing, and writing strategies. One of the findings is that strategy awareness and use varies considerably between individual students. This resulted from the observation of their actual strategy use while working on two tasks in an online module, comparing it with their self-reported use of strategies obtained from a pre-test questionnaire. Starting from this preliminary study, a methodological framework for the experimental setup of my doctoral thesis will be developed. The objective of this thesis is to

investigate the impact of the underlying pedagogical approach of online learning environments (instructivist vs. socio-constructivist) on FL writing acquisition, using a summary from aural input as task.

2. Experimental settings and details

In our experimental case study, 10 student volunteers of the Applied Linguistics bachelor programme (Ba2 and Ba3, 6 female and 4 male, CEF-level B2-C1) at University College Ghent carried out two tasks in an online learning module. The computer was equipped with the Morae recording software which allows for synchronous capture of audio, video, keystroke, and screen. With these features, the software is an ideal monitoring tool for ethnographic observation of students' behaviour in a CALL environment. Our sample population is biased due to the fact that the participants were volunteers; however, this does not affect our study purpose as we do not seek to generalise findings but rather to gather rich empirical data for further research based on the grounded theory approach. Before each individual recording session, the participants filled in a questionnaire containing 10 general questions on their pc usage background as well as 29 specific questions on their conscious use of strategies in FL acquisition, the latter being inspired by Oxford's SILL [3].

The tasks used in the experiment are part of the online language learning module DUO (Deutsch-Uni Online) developed for an academic target group, more specifically for students preparing for a study visit abroad in Germany. The module is designed for self study supported by an online tutor and a forum. The didactic framework of DUO is based on problem solving and guided instruction, with scaffolding playing an essential role in the task design. As DUO does not provide a task specifically focusing on writing a summary from aural input, we used two different tasks in our experiment. Together, they cover all the skills and elements relevant to our investigation. The first task targets the listening comprehension of an authentic radio feature about cyberterrorism, scaffolding the student by means of focusing questions. The second task focuses on the production of a coherent written summary of a reading text about biofuel. Both tasks foster the students' skills by means of open-answer exercises, providing sample answers for auto-correction, i.e. they comply with the principles of cognitive constructivism. Depending on individual computer literacy levels and learning styles, the students needed between 1,5 and 2 hours to complete both tasks. Immediately after finishing the tasks, the respondents rated 11 statements on a five-point Likert-scale that capture their spontaneous responses to the learning experience and the module.

3. Results

3.1 Introduction

Reported strategy use varies greatly between the respondents. They were required to indicate on a Likert-scale ranging from 1 (never) to 5 ((almost) always) the extent to which they use the respective strategies. The mean of all scores for the self-declared strategy use in the pre-test questionnaire is 3,45 out of 5. Most individual mean scores cluster around the general average, but there are two students with a considerably lower mean score (both 3,14), and one student with a considerably higher score (4,07). We will pay specific attention to these three cases when evaluating the self-reported against the actual strategy use in this paper.

3.2 Listening and note taking strategies: self-reported and actual use

The listening task is subdivided into three steps. First, the students listened to the introduction of the feature in order to identify the main topic. After that, they listened to the full text twice, each listening session targeting a different type of listening strategy (skim vs. scan) with appropriate instructions. The answers to the open-ended questions were written in a separate exercise window which must be opened by clicking on a link. Finally, a sample solution could be requested for comparison with the user's own solution.

An interesting behavioural difference between individuals has to do with the usage of the pause and rewind functions. The students are used to the classroom setting where the teacher alone controls those functions. Generally, they listen to a whole input text twice, the first listening session targeting comprehension of the gist and main ideas of the text, and the second session targeting comprehension of some illustrative details. It is interesting to note that most students followed the same procedure when working individually in the online module, although they were explicitly told beforehand that they could use the player functions according to their needs, i.e. stop, rewind, repeat at will when necessary. One interesting exception was a student who used the pause and rewind buttons excessively (stopping after nearly every sentence) from the very beginning of the third listening session (he was the only one who listened three times). This was surprising given that he had rated high his strategy use of skim-listening in the PQ (4 out of 5). On the other hand, he is one of the students who showed a low mean score for overall strategy use and had rated low (2) his use of the emotional strategy When I fail to understand something I don't panic but rather concentrate on the things I do understand, an attitude that might account for his obsessive attempt to grasp every detail during the last listening session.

The listening task also revealed another interesting detail of students' behaviour in the online learning environment: very few students actually read the specific instructions prior to each listening session. This attitude resulted in a note-taking behaviour that did not fit the task requirements. After the first listening session, they had to answer only one question. Nevertheless, most of them immediately started to write down as many details as they could grasp. In view of the second listening session, students were provided with keywords representing the main topics of the text and instructed to write down information on these topics in the input window. Only 2 students wrote down the keywords on their note sheet first, leaving some space to fill in the remaining information, before listening for the second time. This may in part be due to the task structure: the task window containing the audio player and the instructions on the main steps of the task informs them only that they are to listen for a second time and then proceed to the exercise by clicking a link. Only the 2 students who opened the exercise window before listening saw the keyword list there and were thus properly prepared for the task. The metacognitive strategy I clearly identify the purpose of the language activity; for instance, in a listening task I might need to listen for the general idea or for specific facts of Oxford's SILL reflects this behaviour. Unfortunately, we did not include this strategy statement in our PQ, but replaced it with three rather detailed statements concerning the listening procedure: I try to catch the main topic from the first few sentences (mean score: 4 out of 5) – which corresponds to the first step of the task –, While listening for the first time, I try to identify the most important keywords without focussing on details (3,2), and While listening for the second time, I try to write down as many details as possible around the keywords (4,3). It is interesting to note that the third statement has a significantly higher average score than the second one, thus matching our actual observations. To conclude, we emphasize the importance of clear and easily identifiable instructions in online learning modules. Instructions should be visible at the first glance in the surface structure and not be hidden in a clickable window. Only then can they scaffold students in the development of strategy use.

3.2 Writing strategies: self-reported and actual use

When looking at the writing strategies, the most distinctive difference is between the "planner" vs. the "reviser"-type, as established in the research literature on writing (cf. e.g. [4]). In the online module, no specific step was given for planning the writing process. Accordingly, most students did not show external signs of conscious planning (e.g., no-one drew up a draft of the text structure on a piece of paper, or thought aloud about how to structure the text). This does not mean, of course, that they did not plan at all, but rather that planning was exclusively a mental activity. In order to deduce planning behaviour, we therefore needed to look at the writing flow, and this revealed big differences between individuals. Whereas some students seemed to write in one flow, others paused a lot in order to think about the next sentence / step. So, the overall time spent on the task minus the time spent actually writing could be a rough indicator for planning time. But there is still another visible aspect regarding planning that is specific to the setting in the online environment: the text components can be cut-and-pasted from the informative reading text (in this case consisting of key phrases) directly into the input window of the writing task. The extent to which students made use of this possibility varied: some cut-and-pasted the whole list of key phrases before even starting to write the first sentence, others started writing right away and "imported" the respective key sentences when necessary, a third group (the minority) did not cut-and-paste at all but typed the whole text, including the key phrases. One student even copied the key phrases in the input window, fully relying on her memory.

Another interesting observation to do with the structured input for written text production is that only 3 out of the 10 students changed the original main structure of the key phrase lists (advantages vs. disadvantages of biofuel). However, restructuring would have improved text flow considerably since most of the advantages and disadvantages can be combined by topic, and repetition of arguments and of linguistic connectors can thus be avoided. The fact that most students failed to notice this reveals an important shortcoming in the task design: the lack of guidance in structuring the content. Between reading the input information and writing their own text from it, the students completed two exercises on linking words and linguistic strategies to create text flow. The preparation for writing production is thus limited to the linguistic level, and an exercise on structuring input at a content level is missing. In my experience, the content structure is the biggest challenge to FL students when trying to write a coherent text; it should therefore be given specific attention in tutorial CALL.

Three statements on revision behaviour were included in our PQ: When writing in the FL, I reread (1) / rewrite (2) what I have written and I notice my own mistakes and try to correct them. While rereading the own text is frequently self-reported (mean score: 4 out of 5), rewriting is a lot less reported (mean score: 3). The mean score for mistake correction is 3,4. These figures coincide with the tendencies we observed: most students took a lot of time rereading their texts during production but corrected only small gender or case related mistakes or typos. Few students actually restructured their texts during the writing process. Surprisingly, one of the two students who reported low strategy use is a major exception. Not only did he take notes of the reading input on a sheet of paper, he was also the only one to think aloud during the structuring process, while reshuffling text chunks. Moreover, he was the fastest to finish the task (10,5 min, the maximum being 26 min and the median 19 min).

4. Conclusions

We found that most students seemed to have a well-developed awareness of their own strategy use, although there were some interesting mismatches. One student who had reported low strategy use in the pre-test-questionnaire actually turned out to be a very self-conscious learner who relied extensively on cognitive and memorisation strategies throughout the experiment. On the other hand, the student who self-reported a remarkably high strategy use seemed to easily lose control in the

online learning module. Further research, e.g. using depth interviews, is needed in order to clarify reasons for these kinds of mismatches.

The individual differences in handling the online tasks that were observed in our sample underline the importance of diversifying the pedagogical approach in an individual online setting, as frequently suggested in literature (cf. e.g. [2]). Students must be allowed to choose between different approaches to the task and degrees of scaffolding intensity. In order to make an informed choice, they first need to be sensitised to their own individual FL learning behaviour. The importance of strategy awareness for the effectiveness of the FL acquisition process as claimed by Oxford [3] holds true especially of individual online learning.

To conclude, it is worth mentioning that most of our respondents seemed satisfied with their online learning experience and felt sufficiently supported in both the listening (mean score: 3,9 out of 5) and the writing (4,1) task. This is despite some shortcomings in the design of the online module used in our experiment concerning instructions (cf. 3.2) and coverage of the subparts of a complex task (cf. 3.3).

References

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