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Teaching Writing with Use of Digital Aids

Writing Tasks

In order to stay motivated for improving writing skills, writing tasks need to match students' interests, expectations, abilities, backgrounds, feelings and beliefs (Protherough, Atkinson & Fawcett, 1999). Apart from that, the demanded level should not be too difficult for a student, because confidence is important in improving writing skills (Kasule & Lunga, 2010; Jarvis, 2002), however, an activity should still be challenging, to reduce the risk of a reductionist curriculum and consequential boredom (Gibbons, 2015). To achieve this, scaffolding is important.

The term scaffolding was first used by Wood, Bruner and Ross (1976) and is based on Vygotsky's progressivist theory (1978). Scaffolding is defined by Gibbon (2015) as "(...) the temporary assistance by which a teacher helps a learner know how to do something so that the learner will later be able to complete a similar task alone" (16). Scaffolding is an important part of improving writing skills as supported by several studies (e.g. Larkin, 2002; Lawson, 2002; Bodrova, 1998), and can be done, for example, through the use of writing templates, linguistic support systems, and sentence frames (Cotterall & Cohen, 2003). Another manner of scaffolding is simplifying complicated writing tasks by splitting it into smaller and more manageable steps and stages (Cumming & Riazi, 2000). Sequencing smaller tasks will also help in decreasing cognitive overload for second language learners (Gibbons, 2015).

Collaborative and Multimodal Writing

Another study, by Oliver (2005), models the scaffolding of writing skills in five tasks: Outlining and writing frame tasks, comprising of tasks with outlines, necessary vocabulary or useful sentences; re-writing tasks, which is an exercise that demands rewriting in some way, such as changing tone or making a text suitable for the target group; genre scaffolding tasks, which constitutes of the imitation of language features from a certain genre; rhetorical model tasks, wherein students take a closer look at how texts perform rhetorical moves, such as convincing an audience; and joint construction tasks, which is a task wherein students construct a text together. The latter has been researched in an evaluative manner by Hayati and Ziyaeimehr (2011), who concluded, after comparing a group of thirty students who received scaffolded instruction through joint construction tasks to those who did not, that joint construction treatment in writing significantly increased students' achievement. This is confirmed by Yarrow and Topping (2001) who claim that joint construction can contribute to improved writing products. Joint construction, also known as collaborative writing, has also shown beneficial in an online environment, where it promotes the exchange of ideas and thoughts between learners (Topping, Smith, Swanson & Elliot, 2000) and can increase the use of critical thinking, reflection and shared understanding (Phielix, Prins & Kirschner, 2010; Storch, 2005). An important component in this is that online learning environments can solve problems that would normally occur in collaborative writing, because online collaboration is time and place independent (Woo & Reeves, 2007). Cho (2017) found that online collaborative writing in an informal in-class setting led to high motivation and self-regulation. The study emphasised that part of the increased motivation could be due to the fact that the topics that the students were writing

about, were related to their interests. Sun (2010), who compared three empirical studies regarding students' writing habits, found similar results. When assignments were less teacher-directed and provided the students with more autonomy on content selection and mode selection related to their out-of-class interest, students were much more motivated and applied more self-regulation. Vandommele, Van den Branden, Van Gorp and De Maeyer (2017) conducted an experiment wherein a group of 52 students were given a digital, multimodal writing task. The intervention group (n=20) received scaffolded instruction and guidelines for digital multimodal collaborative writing, while the non-intervention group performed the collaborative multimodal writing task out of class. The study concluded that both groups showed equal growth for "complexity and text length on the task and communicative effectiveness, content, lexical diversity, and text length" (p. 23). Although the groups had been exposed to different approaches of teaching, they achieved a similar effect. According to Vandommele et al. (2017) this could be due to the fact that the out-of-class tasks gave the students more engagement and motivation, which helped them to improve their writing skills. The in-class group's improvement was allocated to the scaffolded instruction they received. Overall, the study concluded that the use of a multimodal and digital approach was highly effective (Vandommele et al., 2017).

Out of Class

Outside of class, students engage in a wide range of writing activities, for example through text-messaging, emailing, chatting, and playing online games, often related to students' interests (Ito et al, 2010; Reinhardt & Thome, 2011). These activities are almost always multimodal, meaning the texts are often hyperlinked, interactive, and dynamic (Merchant, 2007). Commonly, these forms of writing are not perceived by students as practising or acquiring language, partly because in-class activities are very different from out-of-class activities (Williams, 2005). The digital age has significantly reshaped the forms, genres, and purposes of writing (Chrun, Kem, & Smith, 2016), which caused a revolution in how people access, communicate, and construct knowledge (Ware, Kern & Warschauer, 2016; Warschauer & Grimes, 2007). Yet education does not have seemed to adopt these shifts in writing (Jenkins, 2009; Lam, 2004).

The changing purposes and forms concerning writing also constitute a different manner of teaching writing, because product and process are undeniably interconnected, and should therefore constitute a similar approach (Canagarajah, 2011, 2013). Thorne and Reinhardt (2008) pose that advanced second language writers need to be familiar with computer mediated writing tools, and simultaneously learners need to be critical consumers and skilful producers in terms of digital multimodal texts (Dalton, 2012).

The use of multimodal composition with use of digital aids in a collaborative setting, has also been studied with the focus on interaction and revision. Several studies have concluded that multimodal composition with use of digital tools led to more collaboration and a more iterative and mediated process (Bruce, 2009; Dalton & Smith, 2012; Fraiberg, 2010; Gilje, 2010). Interestingly, all these studies concluded that, with the freedom to complement written texts with multimedia and the use of digital tools in writing, the process of composing became nonlinear, which enabled more iteration. This effect was not only due to the use of multimodal composition and collaboration. Smith et al (2017) found that computer-based writing caused students to discuss more and better, and encouraged correction and iteration more than paper-based writing. This was partly due to the fact that students tended to draft and revise in a more recursive manner. When writing digitally, revision and correction took place at any stage of the writing process, as opposed to after finishing a draft. This process should also be encouraged or even be part of a curriculum, as research by Kasule and Lungu (2010) suggests that self-editing of texts was perceived positively by second language students, and that it increased student

autonomy. Kasule and Lunga also mention that the approach of self-editing papers fits a student-centred pedagogy.

Feedback

Apart from self-editing, feedback on writing is also an important component in improving second language writing, as long as it is focused on a specific population and context (Ferris, Liu, Sinha, & Senna, 2013). To improve writing, students need support from teachers and peers to achieve the required level of writing competency in higher education (Kirschner, Sweller, & Clark, 2006; Lonka, 2003; Scheuer, Loll, Pinkwart, & McLaren, 2010; Van Merriënboer & Kirschner, 2007). Various studies have formulated requirements for effective teacher feedback. The most important requirements are that the feedback needs to be related to the learning objectives, it must be offered quickly, and it must be within the students' space of near-development (Gaytan & McEwen, 2007; Wang et al., 2008; Wolsey, 2008). Apart from that the feedback must be given continuously (Gibbs & Simpson, 2004; Nicol & Macfarlane-Dick, 2006; Nicol, 2009) and the feedback must focus on both process and product (Hattie & Timperly, 2007). According to Ene and Upton (2018), "feedback as a generic term includes comments/commentary/response as well as corrective feedback, which focuses on formal aspects of learners' language and is provided with the intent to improve linguistic accuracy" (2). The effect of teacher feedback on student writing development is still somewhat unclear (Goldstein, 2005; Hyland & Hyland, 2006b), although students do perceive teacher feedback as an important source of learning (Ware, 2004). According to Bitchener and Ferris (2012), corrective feedback is seen as useful by a sizeable body of research. Several studies claim that corrective feedback is most effective when it is provided directly, explicitly, and systematically (Baker & Bricker, 2010; Ellis, Loewen & Erlam, 2006; Ellis, 2009; Sheen, 2007). In an exploratory study, Alvarez, Guasch and Espasa (2012) found that asking students reflecting questions and providing suggestions rather than direct corrections, students were able to improve their writing more. An earlier study also found that this type of feedback helps to promote learning through fostering reflection and encouraging self-correction (Wolsey, 2008). In addition, Ferris (2010) claims that synchronous and asynchronous corrective feedback are complementary, because of the shifting focus from accuracy to guided problem-solving. Apart from corrective feedback, teachers also tend to provide comments with the main focus on content and organisation of the written piece (Hyland & Hyland, 2001; Zamel, 1982). In a comparative study wherein 111 drafts with teacher feedback were analysed, Ferris et al (1997) found that most comments were questions and requests of text-based information. In a later study, Ferris and Hedgcock (2005) determined that these text-specific comments were most effective in terms of overall uptake. This is confirmed by Straub & Lunsford (1995), who claim that the most effective manner of providing feedback is to balance between global and corrective feedback (Straub & Lunsford, 1995).

Online Feedback

Providing feedback electronically has become more common, especially in higher education (Elola & Oskoz, 2017; Hyland & Hyland, 2006a), and has shown to be effective and appreciated especially if it includes assessment of performance as well as advice on how to improve students' learning (Dexter, 2010). Advantages of electronic feedback, or e-feedback are that it makes students more proactive in terms of requesting help, because they cannot rely on teachers' initiative to simply walk by (César, María, Inés, & Frida, 2013). Apart from that, e-feedback enables students to read and re-read other students' contributions, as they can be made permanently available online (Dysthe et al., 2010).

E-feedback can be given synchronically, typically in chats, or asynchronously, such as added comments to a document (Ene & Upton, 2018; Dysthe et al., 2010). Synchronous e-feedback

tends to have a more involving and engaging character (Blake & Zyzik, 2003), creating equal opportunities for students to be guided by the teacher (César, María, Inés, & Frida, 2013; DiGiovanni & Nagaswami, 2001). According to Sauro (2009) the slower pace of synchronous e-feedback as opposed to face-to-face feedback, contributes to increased effectiveness of the recasts and metalinguistic feedback, and subsequently results in higher accuracy. However, Schultz (2000) considered synchronous e-feedback as less time-efficient than face-to-face feedback and concluded that alternation between e-feedback and face-to-face feedback was very beneficial for students. Shultz (2000), as well as Blake and Zyzik (2003) do warn that the focus in synchronous e-feedback may be shifted to accuracy in writing, rather than fluency.

Asynchronous e-feedback also has a number of advantages in terms of second language writing development. Tolosa, East and Villiers (2013) showed that asynchronous peer feedback improved students' grammar, spelling, and vocabulary. Similarly, Tuzi (2004) found that asynchronous peer and teacher e-feedback also led to deeper revisions than face-to-face feedback on clause, sentence, and paragraph level. Asynchronous e-feedback can be provided in two forms: audio and text. Two studies provided these two forms of asynchronous e-feedback and compared the effectiveness of screencasts and Word comments. Both types of e-feedback showed in both studies a similar increase in successful uptake, although students claimed that the screencast felt more natural. Apart from that, both studies found that the spoken e-feedback through screencasts were more focused on content, while the written comments had a tendency to focus more explicitly on form (Ducate & Arnold, 2012; Elola & Oskoz, 2016).

Overall it has been found that students perceive e-feedback as useful (Elola & Oskoz, 2016; Liu & Sadler, 2003; Lu & Bol, 2007), with a preference for synchronous e-feedback and asynchronous e-feedback in the form of screencasts over Word comments (Ducate & Arnold, 2012; Elola & Oskoz, 2016; Liu & Sadler, 2003). Similar to students, teachers also tend to have a positive attitude towards e-feedback. In terms of what has been shown most effective, sequencing synchronous and asynchronous feedback is recommended (Ene & Upton, 2018).

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