

# Exploring the downside to student online collaborations<sup>1</sup>

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## ABSTRACT

*Online learning proponents report that collaboration in online groups has positive effects on the student learning experience, but the literature also refers to a contrasting side, indicating the often overlooked non-productive or undesirable consequences of student online collaborations. To gain a more nuanced and contextual understanding of student online collaborations, a qualitative study was conducted. In-depth interviews and focus groups were used to gather primary data from students at an Open Distance Learning (ODL) university in South Africa. The results revealed a complex range of learning-related outcomes embedded in student online collaborations, including some drawbacks to these liaisons. Relevant literature about online collaborations supports the notion of looking at the potential for non-beneficial student collaborations and directs a call for a differentiated view of student online collaborations. The paper offers design guidelines from a social theory perspective to assist online learning practitioners in finding ways to mitigate negative online collaborations and facilitate constructive forms of student online collaborations in an optimal learning experience. This paper offers directions for future research regarding the complexity of student online collaborations.*

**Keywords:** collaborative learning, learning design, online learning, social capital, student collaborations.

## INTRODUCTION

Online learning affords opportunities for instant connection between students and provides inherent learning opportunities in a social space for collaborative learning (Casquero et al., 2013; Adipat, 2021). The growth and inclusion of social media in online learning advances the pedagogical potential of online learning via the means of socialisation and increased communication. The education crisis during the COVID-19 pandemic increased the levels of integrating collaborative online learning in educational spaces (Lei & Medwell, 2021). Existing literature on online learning often hails the advantages of student collaboration and teamwork to increase online participation and build networks of learning (Casal, 2019; Casquero et al., 2013; Öztok et al., 2015). There is also evidence student collaborations enhance students' sense of belonging, accompanying an increase in student retention and motivation to persist with their studies (Means & Neisler, 2021).

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Collaborative learning is progressively utilised in online learning (Capdeferro & Romero, 2012). Online learning evangelists claim that participation and collaboration in online groups have positive effects on the student learning experience (Malan 2020a; Mashau & Nyawo, 2021 ), and increase student satisfaction with collaborative learning (Biasutti, 2011). While the positive effects of student collaboration on learning are well documented, the literature also refers a contrasting side, representing an often-overlooked facet of student online collaborations. This other side tells us that non-participation may have advantages for students and identifies challenges and disadvantages to online participation and collaborative online learning (Lutz & Hoffmann, 2017; Capdeferro & Romero, 2012). Thus, there is another side to student online collaborations that proponents of online learning may neglect, possibly as a result of normatively affirmative bias (Lutz & Hoffman, 2017).

After a review of relevant publications about the dark or negative side of online participation (Lutz & Hoffmann, 2017; Stephenson, 2010; Clark, 2003; Capdeferro & Romero, 2012; Latif et al., 2019), the paper reviews data gathered during a doctoral study completed in 2017 (Venter, 2017). The study examined the relationship between social capital development and student online collaborations. The results indicated several benefits to student collaborations, but also highlighted a concerning side to social capital development in online learning collaborations in that there is a potential for disadvantages or negative online collaboration experiences.

While the study was concluded before the COVID-19 pandemic, its findings retained their relevance due to the focus on collaborative online learning. By anticipating the important role of collaboration in online learning, the study laid some groundwork for understanding the collaborative aspects that became increasingly crucial during the pandemic-induced shift to remote learning via online technologies. While the pandemic may have accelerated the adoption of online education, the collaborative nature of such learning persists as a cornerstone and the findings offer valuable insights that transcend the immediate crisis.

The paper is not concerned with possible challenges that students experience when they participate in collaborative learning, such as unpreparedness, lack of motivation or technical skills, or connectivity issues. Instead, it attempts to explain the students' self-reports of non-productive experiences while engaging in collaborative learning tasks, focusing on the interpretation of unintended nonproductive or non-beneficial consequences of student online collaborations.

The paper examines the negative consequences of student online collaborations, including instances of passive, negative and non-participation. A closer look at the research regarding the downside of student collaborations shows a potential anomaly and necessitated the development of a differentiated framework for understanding the above various nuances of student collaborations in an online learning environment. An inclusive framework provides scope to consider ways to circumvent possible negative collaborative online learning experiences when designing an optimal online learning experience for students. The paper offers design guidelines for use by online learning practitioners to assist them in mitigating negative online collaborations and facilitate constructive forms of student online collaborations.

## LITERATURE REVIEW

The increase of online learning to provide sustainable access and interconnectivity necessitate a fresh look at the learning opportunities embedded in online learning (Prasetyo, Nurtjahjanti & Ardiani, 2021). The inherent interconnectedness of online learning provides a social space for social interactions between students that enable the potential for students to build a learning network in which information-sharing and collaborative knowledge-building between participants can take place (Greenhow, 2011; Öztok et al., 2015a). The understanding is that learning is not only an arbitrarily individual 'in-the-head

phenomenon' but simultaneously a social process; learning takes place in the community, and in a particular social context (Öztok et al., 2015b; Han & Resta 2020).

The social process of learning provides for a situation of collaborative learning where two or more people learn together (Muuro et al., 2014); and involves a cyclical and multidimensional process during which collective knowledge is generated and shared. The social process of learning rests on the premise that there is an active exchange of ideas between people who are aware of each other and share social ties and reciprocity through the development of trust and a shared value system (Daniel, Schwier & McCalla, 2003). There is evidence that learning is more effective when students join forces, share knowledge, and collectively solve tasks rather than working as an individual (Kreijns, Kirschner & Jochems, 2003; Muuro et al., 2014).

The use of collaborative learning tools in an online learning environment promotes the development of social interaction and ensuing social capital between students in collaborative learning tasks. Such tasks require students to collaborate, share ideas and resources, solve problems as a group, or work on a collaborative project. Online learning pedagogies promote the inclusion of collaborative learning tasks such as participation in collaborative group activities on discussion forums on the Learning Management System (LMS), participation in problem-based projects, co-presentations, online seminars, and review of work done by peers. Such collaborations make it possible that group work may outperform individual learning and it is possible that students can increase understanding and competence by interacting with more advanced peers (Vygotsky, 1978) and include the development of critical thinking, problem-solving, and self-reflection skills (Chiong, Chiong & Jovanovic, 2012), specific professional skills and a larger capacity for self-management (Muuro et al., 2014; Brindley, Walti & Blaschke, 2009).

The literature furthermore indicates that student collaborations are not necessarily symmetrical or fruitful (Capdeferro & Romero, 2012; Muuro et al., 2014). Even though students can develop reciprocity or interdependence, this may result in a negative type of interdependence not conducive to learning (Muuro et al., 2014), giving rise to feelings of frustration among students (Capdeferro & Romero, 2012; Latif et al., 2019) or facilitate asymmetrical levels of participation (Chiong, Chiong & Jovanovic, 2012).

Effective student collaborations are thus not a given in online learning. Reasons include that online learner, who are typically previously unacquainted, are removed in time and place and share a zero history and/or have divergent interests (Öztok et al., 2015a). The absence of relationships may be associated with a form of social disconnectedness which translates into a lack of trust and a limited flow of information. Furthermore, in the absence of spatial-temporal contemporaneity in an online setting, student collaborations have a high probability of sterility or inconclusiveness (Venter, 2017).

So even though student collaborations can be regarded as crucial to an effective online learning environment, student experience indicates levels of ambivalence or frustration with online group work (Capdeferro & Romero, 2012; Clark, 2003). The so-called 'burden of participation' refers to an unexpected or inconvenient demand for quantity and quality of online contributions, which involves more work and effort from the student (Clark, 2003). Online students typically have to manage both the content and the relational sides of their collaborative spaces, in other words, they should give attention to the cognitive side of 'learning together' as well as ensuring that there are meaningful interactions between them (Janssen & Bodemer, 2013). Useful online collaborations require students to invest on various levels to interact meaningfully with their peers.

Online student collaborations are complex, and the challenge is to develop a differentiated understanding of student collaborations in online learning, paying attention to the less desired outcomes of student collaborations. A cautious view of online participation would acknowledge the potential for a positivity bias of viewing active online participation as normatively desirable in nature and would

therefore examine the chance of a downside of online participation. One such study by Lutz and Hoffman (2017) questions the assumption that online participation equates user agency and/or generates social capital and they argue that explicit attention should be given to a differentiated understanding of online participation, for instance looking at non-beneficial participation in online forums. Negative outcomes may include non-, passive, and negative participation in online groups or forums. It is furthermore posited that users may fail to transfer their online social capital or gains to an offline domain (Lutz & Hoffmann, 2017).

The paper describes an overall or more nuanced view of student collaboration to understand what happens between the individual learner and the online learning community, recognising various learning-related outcomes in such a mediated environment. Results of a qualitative study with online students are used to gain a contextual and differentiated understanding of their online learning collaborations. The findings highlighted the importance of acknowledging the negative outcomes of student online collaborations and necessitate finding ways to provide for productive student online interactions to justify the additional online workload for students and provide for the creation of optimal collaborative learning work.

## RESEARCH METHODOLOGY

Before conducting the research, full ethical clearance was obtained, and the university granted permission to conduct the research. Throughout the research, appropriate measures were taken to ensure ethical conduct and protect the student participants from any harmful exposure. A qualitative research approach was employed to obtain ideographic data to describe the nature of student online collaborations, and 22 students, from a population of 369 registered students, participated in a series of in-depth interviews and focus group interviews. A case study design was applied to obtain in-depth information about the lived experiences and perceptions of collaborative learning among students in a selected online course at an ODL institution. At the time of the study, instances of collaborative online learning were still rare at this university. This particular online module was selected because the formal assessment strategy included collaborative learning tasks, i.e., compulsory online group work. A narrowed focus on one online course provided for detailed research in one bounded system (Yin, 2014).

The research had a small quantitative dimension relating to using the official academic results of the students and looking at the frequency measures of how students participated in the set online group work assignment. Narrative data were collected through four face-to-face focus group interviews and 12 individual Skype interviews with students. Relevant literature informed the items included in the discussion outline. The initial focus group results informed a slight refining of the discussion outline used for the subsequent individual interviews. Both types of interviews were conducted with purposively selected participants until saturation of the data was achieved. The participants were randomly selected from class lists provided by the university, as provided for by the ethical clearance and permission to conduct the research. Care was taken to make sure that students who passed with distinction, passed, or failed were equally represented. The student participants in the individual interviews were not the same students who participated in the focus group interviews. They were selected during a second round of purposive sampling. All the interviews were recorded and transcribed and then Atlas.ti was used to assemble, code and analyse the data. A thematic analysis was done to identify themes and patterns relevant to the research questions (Flick & Willig, 2014).

The question asked during interviews/ focus groups aimed to gather rich data on what experiences students have when they engage in online collaborations with peers. The open nature of the interview schedule allowed participants to offer their views of both positive and negative experiences and provide information on a wide range of perceptions they had of collaborative learning. The rich data provided the development of an understanding of the full spectrum of collaborative online learning activities. Such

a differentiated view holds promise for deriving good design principles to create and develop meaningful collaborative learning experiences.

## FINDINGS

In this section, the findings are presented starting by revealing key findings and justification using verbatim statements made by the students who participated in this research. The findings of this paper revealed that students participated in an extensive range of needs-driven and self-initiated student collaborations and included disadvantageous or non-productive outcomes of their learning-related collaborations.

### **The downside of student collaborations**

The interviews gave insight into contradictory evidence of the perceived learning-related benefits of collaborative learning and included evidence of the other side of student online collaborations, including expressions of ambivalence and/or references to a destructive side to student online group work, including reports about non-, passive and negative participation.

### **Non-participation**

An analysis of the discussion thread on a discussion forum on the LMS (where the online group work had to take place) revealed that many students did not participate in the online group work at all. Several of the participants in the focus group and individual interview also indicated that they declined to participate in the online group work on the LMS. For example, Stian, a male student indicated that he preferred a traditional approach. He explained that the compulsory (collaborative learning) assignment 'irritated' him and he chose not to participate in the discussion. In Stian's own words, 'If there is a problem, then try to sort it out yourself'.

### **Passive participation**

While some students declined to participate in the online group work, others engaged in passive participation in the form of unwilling participation, free-riding, or lurking.

#### *Unwillingness to participate*

Some of the students showed resistance to collaborating with peers. Suhi, a female student expressed a form of passivity and unwillingness to participate in the following way:

So, there were constant assignments, every week you had to work and constantly make the time to be with your computer and connect to the Internet, do your research, and be with your textbooks. Some of the participants found that to be very irritating.

While the unwilling students showed resistance they still did participate, albeit reluctantly. In some cases, this took the form of shallow messages, for instance merely posting non-contributory ideas such as 'I agree'. Several of the more hard-working students made remarks about this type of superficial or insufficient contributions. For example, Leana lamented that there was 'no debate' in her group. Similarly, Omi complained there was a lack of participation in her group and they couldn't come 'to a solid conclusion' because people 'couldn't respond properly'.

#### *Free-riding*

Another form of passive participation refers to forms of free-riding where some students did not make any contributions and 'free-riders' on the back of the participating group members. Roxy explained how some group members failed to contribute to the group output and showed up at 'the last minute', in

contrast to contributing students who were 'constantly commenting and updating'. She felt that the free riders compromised the quality of the group work.

### *Lurking*

Another form of passive participation is when lurking in discussion forum postings occurred, for instance, group members just agreed with other group members and did not make any constructive effort. For example, Leana, a female student explained that her online group had '... the silent students; (who would) just listen and take from the other students without contributing'. She explained that 'there is no interaction or a debate on it where you can see what the different people are thinking about'. This is supported by Collen, a male who complained that '... some don't even answer your questions. You question their work, but they don't come back'.

### **Negative participation**

In contrast to the normatively affirmative belief that active participation is desirable (Lutz & Hoffmann 2017), the findings point towards some undesirable outcomes of student online collaborations, possibly unintended.

### *Excess claims in-group members*

The findings reveal that online groups may demand a lot from participants in terms of claims on shared resources. Omi, a female student shared her frustrations with the demands from groups. She explained that the constant interruptions from needy group members caused her to drop that WhatsApp group and she resolved never to work in groups again. Vuyo, a male student, shared this frustration and explained that he would 'turn off' his WhatsApp to silence the group when he needed to direct his attention to his studies.

### *Constraining personal freedoms*

Some of the students indicated that they found the groups to be restraining their personal autonomies and styles. For example, Mattheu decided to abandon his group because he felt it constrained his autonomy and independent way of thinking. In Mattheu's words:

No, no, no. I tried that, but it didn't work for me because I just find it time-wasting. I know it works for others. I like to read and do things on my own but with other people, you find that... I think my mind works differently.

### *Downward levelling norms*

The findings reveal that active participation in groups may require members to conform to group norms and cultures. For example, Omi, a female student recounted how her group repeatedly engaged in a negative talk which almost resulted in her discontinuing her studies. In her words:

And then you read all of this and I started panicking and I never panicked and I literally threw in the towel two days before the exam... I threw in the towel which is unlike me, so everything was just too overwhelming.

### *Inaccurate information*

Peer collaborations may bring students in contact with inaccurate information. Conor, a male student, said he would not 'just copy there (sic) and submit it. What if it is wrong?' Suhi, a female student, was also apprehensive about the quality of the contributions made by group members. She wanted to make sure that people 'did their research' before she would put her trust in their postings.

### *Exclusion from groups*

Student collaborations in online groups may inadvertently or intentionally exclude others from participation. Some of the students explained that they hesitated or declined to participate in the groups because they felt anxious about the reaction of others. Nelson, a male student, talked about his hesitance to participate in the group because of the rude and arrogant behaviour of other students.

The findings reveal that some students tried to outsmart their group members in an attempt to impress others and the lecturer. For example, Benita, a female student recalled how she was publicly berated and humiliated by another group member, and this caused her to withdraw from the group.

Another dimension of exclusion from groups relates to the tendency of groups with strong ties and shared goals to ostracise non-contributing members. For example, Benita explained that when they suspected someone of 'fishing' for answers and not making frequent contributions to the group, they would ensure that the person does not get a reply but instead will 'get kicked out'.

## DISCUSSION

While the literature shows that regular interaction between online students have positive learning results (Mashau & Nyawo, 2021; Malan, 2020b), the paper argues that this is not the whole story; there is also a range of undesirable outcomes. The research paper reports on negative collaborative experiences, that can be labelled as disadvantages or the 'burden' of collaborative learning (Clark, 2003). It is supported by previous research about the adverse consequences of online collaborations (Muuro et al., 2014; Casal, 2019). A theoretical model of online participation is used to distinguish between various forms of undesirable outcomes of student collaborations, namely non-, passive, and negative participation (Lutz & Hoffmann, 2017).

### Non-participation

Some students declined to participate in online collaborations, failing to find value in these collective concepts and holding fast to traditional or individualistic concepts. Some novice online students indicated that they prefer a solo or autonomous learner style. This trend is confirmed by previous research that explains that especially students who are new to collaborative online learning students, may have difficulty finding their footing and struggle to develop a sense of interdependency (Capdeferro & Romero 2012).

Non-participation may take the form of absenteeism or seldom contributing students. These students may have a detrimental influence on the other students as their absence or shallow contributions disrupts the development of a community of learners (Nagel, Blignaut & Cronjé 2009).

It should be acknowledged that non-participation does not necessarily suggest a lack of student agency but may express an active and substantiated position by way of boycotts or anonymization to renounce harmful practices or express conscious rejection of a practice (Lutz & Hoffmann, 2017).

### Passive participation

#### *Unwillingness to participate*

It is possible that some forms of participation be involuntary, and one should not regard all observable forms of online participation as expressions of student agency. Some student activity may be due to being dragged into a discussion, typically being 'tagged' on social media (Lutz & Hoffmann, 2017).

Several students complained about passive participants in the online groups and this is supported by previous research that identified the discontent active students had for absent students or those who made shallow postings. It is explained furthermore that it is also possible for a student to be visible without making useful contributions (Nagel, Blignaut & Cronjé, 2009).

### *Free riding*

Evidence of high levels of free riding was found in discussion groups on the LMS, for example, when students would only harvest the posts or simply post 'I agree'. This is a form of free-riding as these students indicate that they concur with the contributions made by more committed and conscientious students instead of making original contributions. Free-riding is an easy alternative to active participation in an online group (Wasko & Faraj, 2005). The free-riders benefit from the work and shared normative structure of hardworking students by exploiting the sense of obligation that committed members feel towards the group (Portes, 1998; Venter, 2017)

### *Lurking and loafing*

The phenomenon of 'lurking' is almost the same as loafing as a form of passive participation (Rafaeli, Ravid & Soroka, 2004). Lurking and loafing can be described as an inclination to rely on others to achieve the outcomes, making even less of an effort than when doing the work on their own. The common occurrence of loafing or lurking is supported by another study that found that loafers or lurkers may make up over 90% of online groups. Loafing/lurking can be ascribed to students' estimation of a potentially high risk of futile collaborative efforts (Shiue, Chiu & Chang, 2010). It can possibly be explained by low levels of social cohesion or social capital development in the group that could have sanctioned such selfish behaviour. Low stocks of social capital relate to lower levels of positive online group behaviour as the wheels of the group are not sufficiently greased to make it easy for members to collaborate and achieve reciprocity (Daniel, Schwier & McCalla 2003).

## **Negative participation**

### *Excess claims*

Conversely, when a group succeeded in developing social ties, such groups may make claims on group members. The student reports revealed that students from groups with high levels of connection felt a sense of obligation toward their group members. Groups with strong social ties may make excessive claims on members (Portes, 1998). The establishment of connections and social ties between people facilitates the development of cohesion, also called bonding social capital and subsequent social support. Students who share bonding social capital are more likely to help one another and exchange information, even to their detriment.

### *Constraining personal freedoms*

Membership in a group is dependent on conformation to the specific norms and values of that group; the social ties in the group facilitate the exerting of control and the restriction of personal autonomies. It seems that while sociability may have helpful learning results, it may also generate 'socially undesirable ends' by locking members in an exclusive setting and preventing or stifling originality. Group participation depends on a form of social control that calls for conformity and this may result in independent-minded students exiting the groups (Portes, 1998). This may explain the reports by some students about unwelcome restraints on individual autonomies and the wish some expressed to leave their groups.

### *Downward levelling norms*

The literature also supports the experience that some students had of downward levelling norms in groups, resulting in a lowering of the internal standards and limiting personal aspirations. It is argued that groups place a higher premium on group success than on individual success. Therefore, ambitious members may be put into place or forced to leave the group. It is also possible that a group may not have a culture of high performance or subscribe to low standards and when members internalise these norms it may lead to underperformance and leave members demoralised (Portes, 1998). The interest of an individual student may be rejected in the interest of the collective group. It is also possible that a group



may elect, in the interest of time, abilities, and constraints, to target the most likely best-generalized result but not necessarily excellent results (Clark, 2003).

#### *Inaccurate information*

Interactions with peers have the risk of receiving misinformation from group members or developing 'half-baked ideas' (Greenhow, 2011). Exclusive groups may disadvantage students when they restrict interaction with other groups and limit exposure to alternative ideas. Well-connected members may develop a 'collective blindness' with undesirable results (Nahapiet & Ghoshal, 2009). It becomes evident in the above three instances that high levels of social capital can be accompanied by strong social control, conformity, and conventionalism; all in a negative relation to independent thinking that obstructs innovation or other forms of new knowledge construction (Portes, 1998).

#### *Exclusion from groups*

The findings suggest that collaborations among students are not all based on civility. It seems non-participation may not be the first choice but may be the result of fearing the reactions of others, for example dreading exposure to bullying, blasting, or incivility (Lutz & Hoffmann, 2017). The mere existence of social ties implies that others are excluded from the bond and the accompanying benefits. Those who benefit from the exclusion may not recognise the bias and regard the situation as rational (Gauntlet, 2011). Social capital or cohesiveness in groups may have undesirable or disadvantageous outcomes for the out-group.

### **Design guidelines to provide for productive student collaborations**

The above illustrates that collaboration in online learning groups or communities is not innocent and has various downsides, inhibiting the academic project. The non-, passive, and negative patterns of participation among some students mean that they run the risk of missing out or compromising on sharing the benefits of participation in the online learning community (Nagel, Blignaut & Cronjé, 2009). To answer the second part about the guidelines to be derived from the above insights, some pedagogical suggestions are offered. Departing from the Vygotskian principle of learning as an interactive process (Vygotsky, 1978), a socio-constructivist pedagogical is used to focus on collaborative activity to facilitate constructive student collaborations. A collaborative learning model requires that interaction must be purposefully included in the learning materials. Quality interaction and meaningful collaborations rely on stressing the importance of peer collaborations by including collaborations in the assessment through appropriate scaffolding (Kellogg, Booth & Oliver, 2014; Han & Resta, 2020).

A fitting way to scaffold the learning requires that students work progressively to establish themselves and their collaborative partners in the collaborative learning process. This is particularly important for novice online students who need a gradual path from scanning the new environment to eventually taking the lead in online discussions and providing peer reviews. Mandatory and accessible training initiatives should be instituted to ensure the comprehensive readiness of both lecturers and students to provide for constructive participation in collaborative online learning activities.

Absorption into collaborative learning does not automatically follow when a student registers for the course. The process of becoming an adept collaborative student relies on being socialised into the new way of learning, from being a new resident to internalising the role of a collaborative student (Brett, Lee & Oztok, 2016).

This process can only be supported by providing frequent and diverse collaborative events, with clear guidelines for the students and positive expectations. A variety of synchronous and asynchronous discussion forms can be applied to facilitate a process of student networking (Watson & Gemin, 2008).

Social networking, across formal and informal learning spaces, enables a link between the university LMS and other social spaces. A full discussion of ways of synchronising formal and informal learning is available in another publication (Venter, 2021). Suffice it to say that an intentional range of informal student collaborations feeds the formal collaborative learning process.

The focus should not only be on the cognitive gains from collaborative learning but also on the role of motivation and emotional support. A significant part of the cognitive challenges students face has socio-emotional roots. Collaborative learning challenges are more complex than students just disliking the interaction or being dependent on others. Emotional self-regulation assists students to adjust to the situation and find strategies to deal with challenges. It is possible to extend self-regulation with socially shared regulation of learning in a collaborative environment. It shows promise for students to cooperate in finding ways to let go of distress, break down, or reduce destructive emotional responses. A collaborative learning design should facilitate an ongoing process of socially shared emotional regulation to optimise collaborative learning. One way of doing this is by using the 'flipped classroom'. Students are required to self-manage their learning by studying the content before they start the lesson and then engage in challenging collaborative tasks. Such tasks need to require students to articulate themselves and generate meaning via interactions and joint efforts, including both individual and collaborative learning. During the collaborative work, students may engage in socially shared socio-emotional regulation. Students can also be tested on their knowledge after the group work (Järvenoja et al., 2020).

The above scenario requires the development of collaboration skills as they are critical to success in learning. Unfortunately, the development of collaboration skills is often neglected, and collaborative learning courses may not succeed in their education goals. Collaboration skills and emotional regulations need to be scripted, structured, and integrated into the course with the help of appropriate technologies or apps to target the group's socially shared regulation of learning (Järvenoja et al., 2020). It would be helpful to include purposeful social interaction from the beginning of the course, incrementally providing opportunities for students to develop social presence, useful interaction patterns, and deep relationships (Mehall, 2020).

Collaborative learning affords opportunities for individual students to achieve more by doing less due to a distribution advantage of tasks distributed among group members. However, students need to invest in cognitive and socio-emotional resources to participate in the group. Students will only invest the additional effort if the task is too complex for an individual to carry out. Collaborative learning tasks should therefore be complex and challenging, prompting students to collaborate with peers (Kirschner, 2009).

Collaborative learning projects may have a short lifespan making it difficult for participants to have frequent and enduring contacts to develop social capital via the establishment of trust, cohesion, and a sense of belonging. The development of trust in online learning is a challenge due to the zero history between students and the lack of physical cues. The paradox of trust is that members want to see that there is trust in the group before they trust the group (Smith, 2008). It is crucial that the students have ample opportunities for interaction to work on building trust and fully engage in the group process. It is also important that students do not feel vulnerable or exposed. Students need to have a guarantee that their security and privacy are protected.

Self-regulation is key to both individual and collaborative learning. Essentially, the student should be aware of the need to self-regulate and identify the aim of regulation, whether it is cognitive, emotional, or motivational. Only then the student can select and apply appropriate strategies to manage themselves and their groups (Järvenoja et al., 2020).

Self-regulating plays a major role in helping students to coordinate all the options available to them as online students, for instance finding resources, interacting with the content, making connections, and managing their online relationships across the content and relational spaces (Cho & Shen, 2013). Self-regulated students are pro-active participants who manage their learning goals, relationships, learning tools, and collaborative work across online platforms (Zimmerman, 2000). A heutagogical pedagogical approach supports self-directed student in the 21<sup>st</sup> century who exercise control over their learning process (Blaschke, 2021). Prudent attention should be devoted to capacitating students to proficiently navigate collaborative spaces on diverse online platforms, cultivating the requisite skills and attitudes for adept management of both content and relational aspects within such environments.

Therefore, learning opportunities for voluntary interactions across various online platforms should be provided, preferably in the absence of a lecturer or tutor. Such an integration of formal and informal learning platforms supports the development of self-directed learning and extensive network formation. It can be likened to students working both on the front stage (in the formal learning environment) and on the backstage (in informal and self-driven learning spaces). This provides for student engagement in both structured learning opportunities and emergent learning moments: engaging in planned activities on the LMS as well as collaborating in social media networks and forums. This usually entails evaluating students' engagement in public discussions on relevant social media platforms, by examining the posts and comments they have made. Furthermore, participation and self-regulation can be promoted via a reflective type of task such as self-reflective journaling, requiring students to submit reviews and assessments of the group members' contributions.

A progressive build-up towards interdependent tasks where students share social regulation tasks include projects that involve considerate postings about individual and collective contributions; award individual grades for group projects and rotate members of groups; award group marks, and require the group to include a report on what the goals of their collaboration were, what they believed they achieved, and how they achieved their goals (Järvenoja et al., 2020).

Informal partnerships beyond the LMS involve engaging with both familiar friends and unfamiliar peers across various platforms and networks, fostering collaborations among students from diverse backgrounds. These instances of spontaneous learning in student collaborations are not subject to surveillance or evaluation by the instructor and hold the potential to promote self-directed learning and social capital development. The combination of the planned and emergent types of learning empowers students to be self-directed and collaborative, leveraging technology to collaborate seamlessly anytime and anywhere. Integrating both formal and informal learning spaces ensures continuity between frontstage and backstage learning activities, fostering the development of various types of social ties with social capital benefits. This integration yields various learning benefits, including heightened mutual support and broadened collaborative learning experiences (Venter, 2021).

### **Limitations**

The research is limited by relying on self-reporting and excluding insights into the overall architecture of student social networking across various groups or networks on a wide range of social media. The research is grounded in an examination of collaborative learning that was observed before the onset of the COVID-19 pandemic. This could potentially weaken the effectiveness of the argument in accurately representing the current educational environment.

While being an explorative and qualitative study, the research did not allow for establishing possible causal links between student interactivity and academic performance. The research did not explore the potential for demographic variances in collaborative learning. The research was limited to one ODL institution in the southern hemisphere.

## CONCLUSION

The paper challenges a widely accepted affirmation of student online collaborations by identifying adverse consequences of collaborative learning tasks. It uses qualitative information from a range of interviews with students about their experiences in an online course. The analysis identifies various forms of negative or undesirable forms of student collaborative learning activities, namely non-participation, passive participation, and negative participation. The differentiation is used to derive guidelines for online practitioners to mitigate the negative consequences and design productive collaborative efforts in an optimal learning environment.

### Recommendations to key stakeholders

Insights derived from the research, have the following implications for higher education institutions offering online courses to their students. On an institutional level, budget provision should be made to ensure that staff and students have adequate access to relevant devices and internet services. On a policy level, relevant training initiatives should be mandated and made available to ensure that staff and students are motivated and prepared to fully engage with collaborative online learning. Care should be taken to ensure that users are capacitated to effectively use collaborative spaces on online platforms and have the skills and attitudes to manage both the content and relational spaces well.

### Directions for future research

The research could be augmented by future research, including social network analysis into the frequency and density, or lack thereof, of student interactions to obtain a full socio-metric view of student interactions. It could furthermore be improved by doing an in-depth follow-up to gain insight into how various demographics relate to diverse student experiences of collaborative online learning. The research could be repeated at different types of higher education institutions in different parts of the world, including residential universities engaging in online learning, to provide insightful comparative analytics. A longitudinal study could also be beneficial for managers, administrators, policymakers and practitioners to design and provide for inclusive and productive student engagements.

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