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Factors Contributing to the Negative Online Learning Academic Self-Concept of College Students

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Abstract: This study attempted to determine the factors that contributed to the negative online learning academic self-concept of college students who took pure online learning classes. Toward this goal, 501 randomly selected college students answered an open-ended survey form. It was shown that all aspects of online ASC were negative. The results of thematic analysis disclosed that the negatively perceived ability to understand online course content was mainly attributed to domestic, interaction, personal, pedagogical, and technological factors. Students perceived that they exerted more effort in pure online learning classes because of assessment, pedagogical, consultation, technological, learning approach, and personal factors. The lack of interest in the new learning environment was attributed to interaction, technological, personal, personal physical learning space, pedagogical, assessment, and learning effectiveness issues relating to pure online learning classes. Of the three aspects of online learning self-concept (i.e., ability, effort, interest), interest had the most number of barriers. Recommendations and future research directions are offered.

Keywords: assessment, interest, learning environment, online learning

1. Introduction

Self-concept is defined as "beliefs of self-worth associated with one's perceived competence" (p. 194, Pajares & Miller, 1994). Academic self-concept (ASC) is the students' perception of self regarding school achievement (Reyes, 1984). Through academic self-concept, students can reflect on the descriptive (e.g., I like the course) and evaluative (e.g., I am good in this course) aspects of their self-perceptions (Joyce & Yates, 2007). It is focused on the perceived scholastic competence of the students (Joyce & Yates, 2007).

ASC is widely investigated in a face-to-face setting (Trautwein & Möller, 2016) but only a few studies were investigated in an online setting (Bringula et al., 2021; Catacutan-Bangit et al., 2021; Zhang et al., 2022). Furthermore, previous studies only evaluated the ASC (Liu & Wang, 2005; Trautwein & Möller, 2016) of the students in a pure online setting but did not determine the factors that could contribute to the negative aspects of students' ASC. It is important to understand what factors influence ASC in a purely online learning setup so that school- and teacher-level interventions can be instituted to ensure the satisfaction of students in online learning classes. Toward this goal, this study was conceived. Specifically, it sought answers to the following questions: 1) What is the online academic self-concept of college students? and 2) what are the factors that contributed to their negative online learning academic self-concept?

2. Self-concept, Academic Self-concept (ASC), and Online Learning ASC

Self-concept refers to how an individual perceives themselves and their abilities (Pajares & Miller, 1994). Its application in education led to the development of the research field called academic self-concept (ASC). ASC is students' interest, enjoyment, and perceptions of competency in a particular subject (Zhan & Mei, 2013). Different factors affect ASC in an online learning environment. The use of technology and social support can impact students' self-

concept in online learning environments. For example, a study by Finkelstein et al. (2015) found that providing social support through online discussion forums can positively impact students' self-concept in online learning.

Similarly, a study by Saravanan and Raju (2020) found that the use of technology, such as video lectures, can positively impact students' self-concept in online learning. Overall, the research suggests that online learning can impact students' self-concept in various ways and that factors such as technology use and social support can play an important role in this relationship. In another study, Catacutan-Bangit et al. (2021) personal learning space and year level were consistent predictors of online learning ASC.

Digital skills are another factor that can impact online self-concept. Individuals who feel confident and competent in their digital skills may have a more positive online self-concept than those who feel inadequate in their abilities (Gülbahar & Guven, 2008). However, the digital divide, or the unequal access to digital technologies and skills, can exacerbate existing social inequalities and negatively impact online self-concept (van Dijk, 2012).

Baticulon et al. (2021) conducted a national survey of medical students in the Philippines to identify the barriers to online learning during the COVID-19 pandemic. The results showed that students faced several challenges in online learning, including poor Internet connection, lack of interaction with peers and teachers, difficulty in managing time, and inadequate preparation for online learning. In general, the study found that the barriers include technological (e.g., lack of devices), individual (e.g., mental health issues), domestic (e.g., conflicts within the family), institutional (e.g., inadequate skills of educators), and community barriers (e.g., power interruptions).

In a similar study by Bringula et al. (2021), they showed that the COVID-19 pandemic had a negative impact on learners' mathematics self-concept, with many learners feeling less confident in their abilities and experiencing increased anxiety and stress. The study also identified several challenges faced by learners in the online learning environment, including technological (e.g., poor Internet connection), personal (e.g., procrastination), domestic (e.g., running for errands), assessment (e.g., tight submission deadlines), pedagogical (e.g., unclear discussions), consultation (e.g., difficulty to get feedback from teachers), and test anxiety (e.g., the anxiety of taking online exams). Understanding ASC is important because research has shown that high ASC is positively related to online learning achievement (Zhang et al., 2022).

3. Methodology

3.1 Research Design, Locale, Participants, Sampling, and Sampling Design

This descriptive study was conducted in one university in Manila, with 6,866 students enrolled in full online courses during the COVID-19 pandemic. Using stratified random sampling, a sample size of 367 was computed. Students were selected through their class sections and year level. The study included all six colleges of the university except for one that did not participate in the study. For the interview sessions, 15 students (three students from each college) were randomly selected. However, some participants did not respond to the invitation and were replaced by students from other colleges. The five participating colleges were coded as CBA, CCSS, CEDUC, CDENT, and CENG.

3.2 Research Instrument, Data Gathering Procedure, and Data

This study used a survey form as a research instrument to gather the ASC and the factors that influenced online learning ASC. The survey form consisted of two parts (see Survey Form). The first part gathered information about the ASC in the context of online learning while the second part consisted of open-ended questions regarding the factors that influenced online learning ASC. The research instrument was adapted from a previous study by Bringula et al. (2021) and was pilot-tested (104 students) to ensure its validity and reliability. Five hundred and one students participated in the study, and the survey form was distributed through the official learning management system of the university. The participants were selected through their class sections. The class sections were written on a piece of paper and randomly picked

out. Then, these class sections were gathered from the departments. University-approved ethical guidelines and protocols were observed. A token was provided to randomly selected 10 students. The number of returned survey forms exceeded the minimum sample size, and all returned survey forms were analyzed. The majority of the participants were female (n = 300; 60%), third-year students (n = 175; 35%), and belonged to lower-but-not-poor income households (between Php 10,000/~US$ 200 and Php 21,000/~US $420) (n = 120; 24%).

3.3 Data Analysis

The first research problem was analyzed using the mean. The second research problem was analyzed using thematic analysis (see detailed discussions by Corbin & Strauss, 1990; Bringula et al., 2019). Thematic analysis is a qualitative research method used to identify, analyze, and interpret patterns or themes within textual data. It involves systematically organizing and categorizing the data to gain deeper insights into the underlying meanings and experiences expressed by participants (Corbin & Strauss, 1990). The studies of Baticulon et al. (2021) and Bringula et al. (2021) served as the framework for coding the students' responses.

4. Results and Discussion

Students exhibited negative perceptions towards all aspects of online ASC (Table 1). They lacked confidence in their ability to comprehend online course content and expressed a desire to exert greater effort in asynchronous courses. Additionally, interest in online learning had the lowest mean rating, suggesting that creating an engaging online learning environment posed a significant challenge for educators.

Table 1. *Descriptive Statistics*

Online Learning Academic Self-concept	M	SD
Ability	-0.04	0.69
Effort	-0.24	0.80
Interest	-0.53	0.89

When students were asked why they have negative perceptions about their abilities, they pointed out different reasons that cause these negative perceptions. Prior studies (Baticulon et al., 2021; Bringula et al., 2021) provided classifications of barriers to online learning during the COVID-19 pandemic. This current study discovered that these barriers could cause negative perceptions of the student's abilities in an online learning platform. Domestic barriers, which constituted distractions, unfavorable learning environments, and financial constraints, are the factors contributing to negatively perceived students' abilities. According to the students, they could not focus because there were many distractions, such as watching online movies and noise. Online learning was also construed as not applicable because of an unfavorable learning environment. For instance, one student is living alone and is responsible for all cooking and other housekeeping tasks. His attention is divided into cooking food for himself and attending online classes.

Two students agreed that the home is not intended for learning. The environment at the university is different from home where the former is intended for learning and the latter is intended for relaxation. It is worth noting that one student reported household problems that affect his focus on online learning. Related to this, financial constraint affects the ability of students to perform well in online learning. Domestic barriers were the most reported reasons affecting the perceived online learning abilities of the students.

Interaction barriers are not identified in the studies of Baticulon et al. (2021) and Bringula et al. (2021). Pure online learning delimited the face-to-face interactions between and among students and teachers. In an online learning environment, teachers may not be able to see the students' progress and provide immediate feedback on their activities. One student commented that personal interactions with their classmates helped them understand the

course content in a face-to-face setting. However, this type of interaction is no longer possible due to community lockdown. It was also reported that students were not hesitant to express their thoughts or ideas in an online class. This behavior leads to reduced class participation. Follow-up interviews with the student disclosed that he felt that online learning only promoted one-way interaction wherein teachers would only do the talking. Moreover, he felt shy and inappropriate if he would start a conversation during an online class. Another student confirmed that he felt anxious about asking his teachers during online classes.

Individual barriers contribute to the low perceived abilities of the students. This factor is composed of students' mental health issues, new learning environment adaption, and diverse cognitive abilities. Students were unmotivated, unproductive, lazy, unorganized, and less enthusiastic feelings harm the perceived abilities of the students to learn in online learning. Online learning is a new territory of learning for students. One student perceived online learning as dull and lonely. The sudden shift to online learning brought an uncomfortable feeling toward the new environment. As a result, they find it difficult to adapt to this environment.

Moreover, the pedagogical barrier contributes to the negatively perceived abilities. Students cannot understand the course content simply because the lessons are difficult to be discussed online. Furthermore, teachers alike are having difficulties conveying the topics. The last contributing factor is the technological barrier. Specifically, intermittent Internet connection impedes the abilities of the students to understand the topics. These findings are consistent with the findings of the study of Baticulon et al. (2021) and Bringula et al. (2021).

In terms of factors that contributed to the student's beliefs that online learning requires more effort than studying face-to-face, assessment challenges are the predominant reason why students feel they exert more effort in online learning. Voluminous, multiple, and different course requirement deadlines are putting pressure on students to study more online than face-to-face. Consistent with the barriers of online learning, exerting more effort to study online than face-to-face is attributed to pedagogical challenges. Students are confused with the lecture due to the ineffective delivery of the online material. Furthermore, some materials are simply difficult to deliver online because the teacher's skill demonstration must be seen face-to-face.

Students perceived they needed to exert more effort because they find it difficult to seek consultations with or ask questions to their teachers. According to the students, it was easier to seek a consultation appointment face-to-face. In an online learning environment, teachers do respond to their queries, but it takes time since they must respond to other concerns as well. Similarly, a quick consultation or clarification can be done in a face-to-face setup where a student can clarify the lessons immediately after class.

At the time this study was conducted, pure online classes were in their second semester of implementation. The first implementation was during the summer of 2020. Students may still be in the adaption stage of the technology. They are simultaneously familiarizing themselves with the new online pedagogy and learning platform. It was shown that familiarity with an online learning environment, a sub-category of technological barriers, is another reason that compels students to study more. Along with this challenge, the technical challenge is also reported. In a school setting, students all need to do are to be physically present when attending their classes. However, in an online learning setup, students must set up their devices to attend a class.

When the platform of content is changed, the style of learning also changed. Students are obliged to study at their own pace. In other words, they must practice an independent style of learning. They are required to study the materials in asynchronous sessions. However, this practice is new to students. Students feel confused with the course content and become unconfident if they learn when they study on their own. Hence, students exert more effort into studying the course materials on their own time. Lastly, one student commented that it takes an effort to practice discipline. Since he is in a relaxed environment, he tends to procrastinate or become lazy. This finding is similar to the finding of the study of Bringula et al. (2021).

Interaction challenges are the main reasons why students feel uninterested in online learning. In general, one student commented that, as humans, “we all crave for human interactions” (CEDUC1). According to the students, seeing their classmates personally make them excited to learn. Furthermore, the mere presence of their classmates and teachers in a

face-to-face setting boosts their motivation to learn. Unfortunately, all of these in-person interactions are shifted to virtual interactions due to community lockdowns resulting in the implementation of purely online learning classes.

Mental health issues are also found to have an impact on the interest in online learning. It is worth noting that these challenges are not related to academic challenges. Nonetheless, students experienced these challenges which harm their interest in the new learning environment. Other challenges involve technological challenges in terms of familiarity with the LMS environment and device ownership. Students are accustomed to face-to-face learning, and this has been practiced for so many years. Pure online learning is a very new mode of teaching for them. Thus, students are simultaneously learning the course content and the LMS environment itself. The lack of physical and computer setup contributed to the negative connotations of online learning. Related to technological barriers, a personal physical challenge for online learning also exists. The physical setup of the learning space is problematic since students share rooms with the rest of the family members (Bringula et al., 2021).

Students also raised personal issues as barriers to liking online learning. They acknowledge that there are distractions at home. These distractions test the self-discipline of the students. The interview result also shows that physical health is attributed to disinterest in online learning. For instance, one student reported that he must sit for more than 4 hours a day with no break in between lecture sessions.

According to the interview results, some professors are taking their lecture materials from the Internet. This is an unexpected finding considering the university offers e-books. Similarly, a lack of interest in online learning is attributed to the poor assessment practices of teachers. Multiple submission dates and voluminous requirements are found to affect negatively the students' interests. Finally, a belief that they cannot learn in online learning is one of the factors that contribute to a lack of interest in online learning.

Personal, pedagogical, and technological barriers are the consistent factors that negatively affect all components of online learning self-concept. Of the three components of self-concept, interest had the most number of factors influencing it. Hence, interest is the most challenging aspect to engage students in online learning.

Four themes emerged when students were asked about what recommendations they can provide to make online enjoyable. Two of the four recommendations – pedagogical and personal – refer to the two persistent factors negatively influencing online learning self-concept. Students suggest making improvements in the pedagogy in terms of content delivery. Students requested teachers to provide a topic summary and to give enough time for activities. Activities such as educational games can be administered to avoid boredom. Students further pointed out that games can enhance their online participation.

Students emphasized the importance of their mental health (i.e., personal). An institutional policy is already set to address this recommendation. The university provides an academic break after major examinations. A break within the lecture may also be beneficial for students since students and teachers alike have been sitting for long hours of lectures. Related to these recommendations is the mindfulness of the teachers in providing reasonable volume and completion time of course requirements (assessment recommendation). Students advocated 2-3 asynchronous days are needed on average to complete the course requirement per course (Bringula et al., 2021). Lastly, students encouraged the development of mutual connections in an online learning platform between students and students, and students and teachers. This refers to the interaction suggestions – the fourth area of recommendation. One student specifically recommended introducing themselves to one another or providing group work that will let them know each other.

5. Conclusions and Recommendations

This study attempted to determine the online learning ASC and the factors that influenced it. The students' online academic self-concept in terms of perceived abilities, effort, and interest are all negative. This finding indicates that they have negative dispositions toward their self-concepts in an online learning environment. There are varied reasons that explain the negative

dispositions of the students. Personal, pedagogical, and technological barriers are the consistent factors that negatively affect all components of online learning self-concept. Thus, it can be concluded that students were facing internal and external factors that influenced their online ASC.

In light of the findings and conclusion presented, it is recommended that teachers' training is needed to update their pedagogical, communication, and interpersonal skills. Institutional orientations and seminars regarding mental health and time management dedicated to students may be conducted. Teachers are encouraged to balance the quantity and quality of course requirements.

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