

THE EXPERIENCES OF PRE-SERVICE TEACHERS WHO PARTICIPATED IN COURSES THAT INCLUDED AN INDEPENDENT STUDY UNIT ON AN ONLINE CAMPUS

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Abstract

This study examined the experiences of pre-service teachers who participated in courses that included an independent study unit on an online campus (Campus IL) to understand the advantages and challenges of this experience. The research was rooted in the Self-Determination Theory (SDT) perspective, which postulates that there are basic universal psychological needs that must be satisfied for people to experience growth: connection and relatedness, competence, and autonomy. The participants were 30 students enrolled in three different courses on Hebrew language teaching. The research tools included a semi-structured questionnaire that the students filled out at the end of the semester and in-depth interviews with 22 students who expressed their consent to be interviewed. Four main findings emerged from the data analysis: (1) a positive, professional, and sense of competence experience (2) enjoyment from the diversity of teaching methods and Improvement in their Academic Learning Skills (3) satisfaction with the flexibility of the schedule; and (4) sense of connection and relatedness.

Keywords: Digital Pedagogy, Digital Learning, Higher Education, Pre-Service Teachers, Self-Determination Theory (SDT)

1. INTRODUCTION

1.1 The "Self-Determination Theory" (SDT)

Self-Determination Theory (SDT) is a macro-theory of psychology that emphasizes the impact of social and contextual factors on human motivation, behavior, and personality. It also examines how social environments shape attitudes, values, motivations, and behaviors (Deci & Ryan, 2000). According to this theory, humans require three fundamental psychological needs to thrive: connection and relatedness, competence, and autonomy (Deci & Ryan, 2012). Meeting these psychological needs is crucial for achieving internal motivation, social adaptation, and an individual's optimal development. On the other hand, if these needs go unfulfilled, individuals may feel frustrated, alienated, and experience psychological distress. These needs also significantly impact the type of motivation and the quality of a student's engagement in learning and play a vital role in promoting satisfaction and well-being in life (Ryan & Deci, 2002). Environments that support the fulfillment of these psychological needs promote self-regulation, social relationships, and overall well-being (Ryan & Deci, 2022).

The concept of competence aligns with the psychological understanding of the term, particularly in the context of self-determination theory. According to this theory, competence is one of the three basic psychological needs essential for psychological growth and well-being (Deci & Ryan, 2000). Competence involves the efficiency and success of the person in his actions and interactions with the environment, and it involves experiencing opportunities to realize and express his abilities. It involves opportunities to express and exercise one's abilities and desire to master assignments and succeed in personally meaningful endeavors. Skill building and growth in meaningful personal pursuits are closely related to competence. A person can accomplish challenging assignments by learning, developing skills, and believing in their ability to create something meaningful out of nothing (Ryan & Deci, 2020; Schunk & DiBenedetto, 2021).

The need for connection and relatedness is in a deep relationship with significant people with whom one can share successes and failures, be part of a community, and feel protected from threats and emotional or physical suffering. This need expresses the desire to feel accepted by those around us, to enjoy their presence, and to have their support when needed. In terms of learning, the role of a teacher is to create

an atmosphere of proximity and dialogue, which allows sensitive and constructive communication around student's thoughts and feelings during the learning process (Ryan & Deci, 2020).

Autonomy refers to the freedom from coercion and to a person's need to feel in control of his actions and decisions, as well as the right to choose as opposed to being controlled by external forces. It involves the freedom to pursue goals that align with one's values and interests. The need for autonomy is a need that enables authentic self-expression, independence, meaning, and choice. In learning processes, support for the student's autonomy may be expressed in the absence of coercion and his sharing in the learning goals and assessment methods (Ryan & Deci, 2000).

According to Ryan and Deci (2020), support for student autonomy is reflected in teachers' attempts to understand and, if possible, respond to the student's point of view. Moreover, autonomy-supportive teachers allow students to take initiative regarding their homework, allowing them to choose assignments that interest them. This contrasts with teachers who control students' behavior without considering their perspectives. Giving choices is an essential element of student autonomy.

1.2 Digital pedagogy

Due to its multifaceted nature, digital pedagogy can be challenging to define. Essentially, digital pedagogy involves utilizing digital technologies in education (Vääätäjä & Ruokamo, 2021). Kivunja (2013, p.131) defines it as the ability to incorporate digital technologies into teaching to enhance learning, teaching, assessment, and curriculum.

Digital pedagogy involves thoughtfully integrating different technologies into teaching and learning processes. Its goal is to use the possibilities offered by various technologies and digital tools within different teaching models. Mobile technologies allow for the customization of a student's education, enabling personalized assignments based on their skills, interests, and experiences. Students can use their mobile devices to solve problems, read texts, or access educational content conveniently. "Personalization" can also refer to gathering information about mobile technology users. Users have different preferences for consuming information, such as tables, diagrams, or texts (Malchenko et al., 2021).

The widespread availability of mobile technologies, such as smartphones, tablets, and laptops, allows learners to access vast amounts of information from anywhere. Any location can now serve as a learning environment, redefining the concept of an "independent learner." In light of these technological advancements, there is a need for new educational concepts and digital pedagogy. These mobile technologies empower individuals to access knowledge anytime and place (Rufaidah et al., 2021).

Integrating technology into teaching and learning is essential today. The new generation of students, known as "Digital Natives," have grown up in a technological environment and will enter a workforce that relies on technology. Using available technological tools can enhance both the learning and teaching experience and bridge the gap between academia and the digital world outside. The immersion in today's technology-rich culture significantly impacts the skills and interests of digital natives, especially in education. For instance, digital natives have different learning styles than previous generations of students. They are considered active, experiential learners, skilled at multitasking, and reliant on communication technologies to access information and interact with others (Bennett et al., 2008).

Bomsdorf (2005) describes the main facets of digital learning as follows: Students' ongoing learning activities are carefully recorded. They can access their documents and media from anywhere, enabling self-directed learning. Information is readily available, allowing for quick problem-solving and the ability to save questions for later. Communication with experts, teachers, and peers can be synchronous or asynchronous, making expertise more accessible. Learning seamlessly integrates into daily life, presenting knowledge and problems in natural contexts. Additionally, learners receive information tailored to their specific needs, ensuring relevant and timely learning experiences.

The digital technology offers various learning resources such as MOOCs (Massive Open Online Courses), online discussion forums, LMSs (Learning Management Systems), game-based learning environments, coding and computer programming, augmented and virtual realities, BYOD (bring your own device), BYOT (bring your own technology), BYOC (bring your own connectivity), maker spaces,

blogging, microblogging, wikis, backchannels, audio recording and music making, image and video editing, creation of infographics, slideshows, and presentations, digital storytelling, social media, collaboration tools, and mobile apps (Murty & Rao, 2019).

Considering the benefits of online self-learning and the importance of skills to ensure sustainable learning, Linde et al. (2023) conducted a study in Latvia that examined the impact of an online course aimed at improving teachers' knowledge of SRL (Self-Regulated Learning) and students' self-efficacy in developing SRL skills. The study analyzed the teachers' self-assessments regarding the impact of the online course. They demonstrated that teachers' theoretical understanding and abilities in developing students' SRL skills can be significantly improved. The research findings indicate that teachers must not only use technology in their classes to provide high-quality learning opportunities but also learn through this format themselves.

1.3 Digital Learning

A review study examined the concepts of digital competence and digital literacy, which are increasingly used in public discourse. The study found that the usage and definitions of these concepts still need to be clarified. It focused on titles, abstracts, and keyword searches in peer-reviewed publications written in English. The findings revealed that higher education research uses various definitions. These definitions differ based on whether they are defined by policy, research, or both and whether they emphasize technical skills or social practices. These findings demonstrate the need for a clear and conscious adherence to the precise definitions of the concepts to avoid inconsistencies and address these issues (Spante et al., 2018).

Self-Determination Learning (SDL) is described as "a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (Knowles, 1975, p.18).

As digital resources become more accessible, self-learning has the potential to empower individuals and drive personal and professional growth limitlessly. Embracing self-learning can unlock invaluable opportunities. In a study by Wei and Chu (2020) and Prihastiwati et al. (2021), self-determination learning is found to be the most influential component of e-learning readiness for engaging learners, followed by internet self-efficacy and online communication self-efficacy.

Research on massive open online courses (MOOCs) has examined their effectiveness in the context of blended learning and self-determination learning skills. Using a mixed-methods approach, he examined six dimensions of SRL: goal setting, assignment strategies, time management, environmental structure, help-seeking, and self-esteem. The findings indicate that goal setting and assignment strategies are essential for better achievement of course objectives (Onah et al., 2021).

One of the most common self-learning methods today is online learning. This learning includes a variety of options available to lecturers and students. The literature on online learning identifies two main reasons students take online courses. Firstly, the online delivery format offers greater flexibility and convenience, particularly for students with other work and family commitments. Secondly, students who prefer working independently and at their own pace are more likely to choose online courses (Xu & Xu, 2019).

In a study conducted in Hong Kong, researchers explored students' perspectives on online learning. They used a self-administered questionnaire to collect data from 198 students. The students found online learning convenient, allowing them to study at their own pace and schedule. They also reported that online learning increased their sense of responsibility for their learning and encouraged independent learning behaviors. However, not all experiences were positive. A significant disadvantage of online learning was the lack of opportunities for human interaction, which students felt was necessary for establishing peer support and engaging in in-depth group discussions on course topics (Sit et al., 2005).

2. MATERIALS AND METHODS

2.1 Research method and paradigm

This research is action research conducted in the qualitative-interpretive paradigm. Qualitative research aims to provide an in-depth description and understanding of the human experience and interpret human phenomena, intelligence, and discourse. The researchers have an essential role because they analyze the data, interpret it, and understand it from an in-depth perspective (Lichtman, 2023). The qualitative paradigm enabled me to listen to the students' voices participating in the courses and deeply understand their experiences. Action research requires teachers to think critically about their work since a teacher-researcher tries to identify problems in his work through research, understand them, and deal with them (McNiff, 2002). As a lecturer, I need to receive the students' feedback as part of my professional development.

2.2 Participants

The study included 30 female students who participated in three courses focused on teaching reading and writing. Nineteen students participated in two online courses, while eleven attended a face-to-face course.

2.3 Research tools

Two research tools were used:

- A semi-structured Google Forms questionnaire
- In-depth interviews with 22 students who expressed their consent to be interviewed

2.4 Research Question

What are the experiences of pre-service students participating in an academic course that includes a study - unit on an online campus?

2.5 Procedures

During the course planning phase, a relevant teaching unit was selected for each of the three courses from the courses offered on the IL campus. In the next step, students in all courses were given guidance on registering for the IL campus and studying there. No instruction was given on the content. The students received a Google Forms questionnaire at the end of the course. Thirty students answered the questionnaire.

2.6 Data analysis

The data analysis followed the inductive content analysis approach that Elo and Kyngäs (2008) proposed. Initially, the content unit was carefully chosen for analysis. Subsequently, an open coding process was undertaken, involving the creation of categories and abstraction of data. Following the open coding phase, the compiled lists of categories were organized under broader headings. Each category was then labelled with descriptive words that best represented its content.

2.7. Reliability and Ethics

Inductive content analysis was employed to examine the semi-structured questionnaires and interviews. The analytical process commenced with the selection of content units for subsequent analysis. Following this, the data was systematically organized through

steps: open coding, creating categories, and the abstraction process. During open coding, categories were identified and subsequently grouped under higher-order headings, with each category being named using terms that accurately reflected the content.

2.7 Reliability and Ethics

First, I got the approval of the college ethics committee. I informed the students that completing the questionnaires and participating in the interviews was voluntary. I assured them of anonymity and

confidentiality and explained that the data would only be used for research purposes. The questionnaires and interviews were conducted after the end of the course

2.8 The uniqueness of the study

Many studies have been conducted on student satisfaction with online and hybrid learning. This study is unique because it examines student satisfaction with integrating a structured study unit developed by experts in various specializations from an online campus. The study unit combines traditional teaching with innovative teaching methods.

“Campus IL” is a national initiative for digital learning that offers various courses on various topics from leading academic institutions in Israel and around the world. The initiative was introduced in 2015 with the backing of the global company edX. Campus IL is a flagship project of the national "Digital Israel" initiative in education and learning. The campus offers courses in Hebrew and courses in Arabic. The IL campus project has several goals, such as increasing accessibility to general, professional, and academic education for the general public, responding to the changing labor market, and reducing social gaps for different populations (Israel National Digital Array).

A diverse and structured study unit of this type may create interest and motivation on the one hand and feelings of burden or frustration on the other. Therefore, the lecturer needs to understand his students' learning experience and consider it when planning the course.

In addition, the students' satisfaction was examined from the perspective of the self-direction theory.

The analysis was connected to the self-determination theory (SDT). The study concluded that providing students with satisfaction with online learning is necessary to give them a sense of connection and relatedness, competence, and autonomy.

3. RESULTS

Four main themes emerged from the analysis of the research data: (1) a positive, professional, and sense of competence experience (2) enjoyment from the diversity of teaching methods and Improvement in their Academic Learning Skills (3) satisfaction with the flexibility of the schedule; and (4) sense of connection and relatedness.

3.1 A positive, professional, and sense of competence experience

Most of the students (25 out of 30) had a good and empowering learning experience and a feeling of competence in dealing with the study unit. They found the study unit positive, professional, enriching, and relevant to the course topics. They reported a sense of satisfaction from their success in performing the assignments and from the immediate feedback they received on each assignment they performed.

S. stated that she enjoyed the course at the IL campus, which was interesting and enriching. She intends to continue studying various courses and recommends that all college lecturers incorporate courses from the IL campus into their programs.

"I enjoyed studying at the IL campus. The content was professional and advanced my knowledge in teaching reading and writing. My knowledge in teaching reading. My son is in the process of acquiring reading, and I was able to apply what I learned and gain experience for my students in the future. I recommend that more lecturers consider integrating a study unit from the IL campus into their course because success in this type of learning gives a sense of satisfaction and competence."

H. was exposed to the IL campus for the first time. She felt satisfied with her success in learning independently without the lecturer's help.

"This is my first time experimenting with self-learning through an online campus. I learned content using innovative teaching methods that I can apply to my students. The course was well structured and professional and allowed systematic progress. I completed all the assignments out of interest and pleasure."

However, some students (5 out of 30) preferred traditional learning on campus. They did not like the idea of self-learning on the IL campus and felt frustrated and unable to move forward and complete the assignment. Each one explained his dissatisfaction differently. Some claimed that the study unit was too long and busy, and some claimed that, in principle, they do not like to study online.

Sh. claimed that learning on the IL campus required more time than face-to-face learning because she summarized the lecturer's words during the lesson in class.

"As a mother, I could not finish the study unit in one sitting. In a traditional class, I listen to the lecturer and summarize the explanations step by step simultaneously. At the IL campus, I had to stop so that my learning was interrupted, and it took me a long time each time to remember what I had already done."

3.2 Enjoyment from the Diversity of Teaching Methods and Improvement in their Academic Learning Skills

The students reported that learning in the online course improved their ability to work in teamwork required in the professional world. Cooperation and teamwork are important skills in the world of employment in general and in school with other teachers in particular.

For example, D. emphasized the benefits of collaborative learning, which are increasingly valued in the professional world. She noted that studying with classmates gave her a sense of security, as it assured her that she was in the right direction and capable of meeting assignment deadlines set by the lecturer.

"I prefer to learn with a colleague. Peer learning gives me confidence that I am in the right direction. First, each of us studied the study unit independently. After that, we discussed each question, read articles together, and summarized the important principles. We watched the videos and found the important details. I am glad the lecturer gave us the autonomy to choose between self-learning and peer learning. My experience in teamwork is important for my future work with colleagues at school. I am satisfied that I have developed my ability to work cooperatively."

The students referred to the development of their technological abilities due to the learning on the online campus, which required advanced technological knowledge and encouraged them to manage their communication using new technological tools. Online learning often requires students to navigate various digital platforms and tools, including Learning Management Systems (LMS), video conferencing software, online libraries, and digital collaboration tools. Students learn how to effectively use these technologies to access course materials, participate in discussions, submit assignments, and communicate with instructors and peers.

For example, L. stated that she coped well with the assignments in the study unit and the technological challenges. She felt she belonged to a quality group of students who were unafraid of technology and self-learning.

"The assignments in the study unit at the IL campus are complex and technologically challenging. However, I made progress, step by step, and felt like I belonged to a high-quality group of students. My classmates relied on me for help, strengthening my sense of belonging to a technologically savvy group. "

Some students stated that they improved their communication skills with their peers and learned to communicate in diverse ways. Many online courses include group project activities that require students to collaborate virtually. This experience helps students develop effective team communication skills and coordination with colleagues to achieve common goals. The students took the initiative to create a WhatsApp group to assist each other with their assignments and discuss the study unit. They used different communication methods, such as messaging and recording questions and ideas. This WhatsApp group created a strong sense of belonging among all the learners.

B. joined the WhatsApp group that the students established. She stated that her sense of belonging improved significantly, enabling her success in the assignment.

"In a conversation with my classmates, I realized that a WhatsApp group had been opened to discuss the assignment. The fact that I could join this group contributed me a lot. I felt a sense of belonging to a serious group facing a new challenge. I was happy to have the opportunity to consult with my classmates and help those who needed support. My communication skills have greatly improved because of engaging in the online campus assignment. "

3.3 Satisfaction with the Flexibility of the Schedule

Most students (27 out of 30) reported being very satisfied with the online study unit. They valued the flexibility that enabled them to learn at their own pace and on a suitable schedule, and the option to choose between self-learning and peer learning.

M. greatly appreciated the flexibility and the autonomy that allowed her to complete the assignments at her convenience. She mainly mentioned the advantages of learning in stages, stopping learning, returning to the same place, and continuing.

"I have attention and concentration difficulties. It is very suitable for me to study independently and flexibly. I determine when is the right time for me to complete each assignment. I enjoyed the opportunity to progress at my own pace, stop, and continue from the same spot. When I finished the process, I realized that I have the ability to study independently while managing my own time."

N. is a mother. She also mentioned the benefits of the flexibility and autonomy of learning on the IL campus, which allowed her to manage her time according to her children's needs.

"I am a mother, and I appreciate the flexibility, autonomy, and independence that allowed me to organize my schedule according to my children's needs. This is unlike on-campus learning, where I have to follow a schedule determined by the lecturer."

K. also appreciated the flexibility in the schedule, allowing her to study at a time that suits her due to her work-study commitments.

"I have to work at the same time as my studies because I have to pay for them. Therefore, I was happy about the opportunity to study at a flexible time. This allowed me to combine my studies with the requirements at the workplace."

The nature of online learning can change rapidly, with updates to course content, technology, and interaction methods. Students indicated that they were becoming adept at adapting to new tools, formats, and schedules. They appreciated the flexibility they believe is valuable in academic and professional settings, where change is constant.

V. also mentioned the advantage of the flexible schedule and her ability to learn at a time that suits her. She referred to the fact that she has a load of assignments in the various courses and that the flexibility in the study unit allows her to carry out assignments according to the order of priorities.

"The study unit at the IL campus allows for flexibility in terms of time so that I may complete the assignment in order of priority. In addition, the flexibility allows me to decide whether to work independently or with a classmate. "

3.4 sense of connection and relatedness

Interestingly, most students (24 out of 30) reported that learning on the IL campus has also negatively impacted their sense of connection and relatedness. According to them, self-learning in the study unit left them to cope independently without the lecturer's or classmates' support.

M. reported feeling unconnected because she had to complete the assignments without the lecturer's and classmates' support.

"Self-study at the IL campus did not contribute to my sense of belonging. I felt alone with the assignment without the support of the lecturer and my classmates, as I am used to. I prefer to study traditionally in the classroom, to ask the lecturer questions, and receive immediate answers."

F. referred to her difficulties with the language in which the assignments are written in the unit of study on the IL campus. According to her, the feeling of loneliness damaged her sense of belonging and the support she is used to receiving in a face-to-face course, especially in the language field.

"I find it very difficult to study alone because of my difficulties with the Hebrew language. Therefore, I always prefer to study a face-to-face course to meet my classmates and receive support from them. Learning at the IL campus was too difficult, so I put off doing the assignments until the last minute".

Some students stated that they have difficulty dealing with assignments requiring technological knowledge. They felt uncomfortable with the burden of technologically challenging assignments on the IL campus, mainly because they lacked continuous contact with the lecturer and their classmates.

Y. Claimed that the study unit is technologically challenging. According to her, in her traditional classes, her classmates assisted her with all the assignments that required technological knowledge. The IL campus assignment is an online assignment. She felt she lacked a sense of belonging in face-to-face courses.

"Studying at the IL campus did not make me feel more connected. Instead, the technologically challenging assignments isolated me. Learning in a traditional classroom with my teacher and classmates is more suitable for me and strengthens my sense of security and belonging. "

Only, some students thought learning at the IL campus exposed them to innovative learning methods unknown to them until then. Following the assignment's success, they felt a sense of pride in belonging to an innovative group of learners who mastered advanced technology.

4. DISCUSSION AND CONCLUSIONS

This research examined the experiences of pre-service teachers who participated in courses that included an independent study unit on an online campus (Campus, IL) to understand the advantages and challenges of this experience. The research findings revealed four central themes: a positive professional experience and a sense of competence; enjoyment from the diversity of teaching methods; Improvement in their Academic learning skills; satisfaction with schedule flexibility; and a sense of connection and relatedness.

The findings' analysis shows a connection to the Self-Determination Theory (SDT) regarding the three psychological needs: connection and relatedness, competence, and autonomy.

4.1 One of the principles in the self-determination theory is Connection and Relatedness. Only a few students reported that learning on the online campus contributed to their sense of belonging. They emphasized the feeling of belonging to a quality group that is not afraid of technological challenges. This indicates that combining advanced technological elements and innovative learning approaches may improve the student's sense of belonging when they succeed in coping with online learning.

Osterman (2000) found that students who feel a sense of belonging are more motivated, show more involvement in school activities, and are likelier to persist in facing challenges. This underscores the importance of fostering a sense of belonging to enhance student engagement and perseverance. This conclusion corresponds with the findings of this study, which indicated that a sense of belonging must be promoted among students, even when it comes to online learning.

Moreover, Strayhorn (2018) conducted research showing that students emphasize the importance of social acceptance, support, community, connections, and respect for forming identity, development, mental health, well-being, and academic success. He believes that a sense of belonging is a basic human need that drives behaviors and perceptions. Satisfaction from a sense of belonging leads to positive gains

such as happiness, well-being, achievements, and optimal functioning. This reinforces the study's findings that students report satisfaction when their sense of belonging is compromised. When the students experienced a sense of belonging, they progressed in the assignment and reported satisfaction.

However, most students did not feel that learning on the IL campus contributed to their sense of connection and relatedness. This shows that while innovative learning methods and advanced technology appealed to a minority, they did not suit most students in this context. This finding concludes that it is necessary to consider the students' different learning styles and provide an adapted or alternative assignment to students who do not feel a sense of belonging. The lack of a sense of connection and relatedness might harm their academic achievements.

The study by Sit et al. (2005) supports my research findings. They explored students' perspectives on online learning in Hong Kong. Their findings showed that some students reported that online learning was convenient because it allowed them to learn at their own pace and schedule. However, not all students reported positive experiences. They concluded that a significant disadvantage of online learning was the lack of opportunities for human interaction.

Similarly, Baumeister and Leary (2017) conducted extensive research and found evidence confirming their hypothesis that the desire for interpersonal connections and the need to belong are fundamental human drives. This is consistent with my findings that a lack of a sense of connection and relatedness negatively impacts students' experiences and their academic achievements.

4.2 Another principle in the theory of self-direction is the principle of Competence. Most students reported a positive and empowering learning experience, emphasizing their sense of competence. This suggests that the structured study unit made students feel confident and capable of managing their learning assignments. The professional quality and expert guidance embedded in the unit provided students with a reliable framework to navigate complex topics, reinforcing their ability to master the content. It can be concluded that combining a structured course developed by experts from different fields of specialization increases the students' self-competence and strengthens their abilities to control the studied content.

Pettersson's (2018) findings highlight the importance of organizational structures and strategic leadership in enhancing digital competence among teachers. They emphasize that well-structured policies and institutional support are crucial for enabling teachers to develop the necessary skills. This aligns with my findings that a structured study unit, supported by expert guidance, enhances students' competence and ability to manage complex topics.

Another review aimed to provide the research community with an up-to-date overview of the study of digital competence from 2015 to 2021 in the context of higher education. This need arose primarily due to the impact of COVID-19 on education and the concern for digital competence. This study provides an overview of digital competence in higher education, particularly in pursuance of the COVID-19 pandemic. It notes that while most university students and teachers possess basic digital competence, there is a need for higher education institutions to develop comprehensive learning strategies and tools to enhance these skills further. These findings support the findings of this study, which found that most students were satisfied with learning in an online course that allows them to develop their ability to learn using various technological tools (Zhao et al. (2021).

Similarly, Napal et al. (2018). assessed the digital competence of pre-service secondary school teachers, finding that their self-perceived competence was generally low, particularly in content creation and problem-solving. This underscores the necessity of structured, expert-led courses to build competence in these areas. These findings reinforce my findings that a reliable and professionally designed framework can boost students' confidence and ability to master the content.

4.3 The third principle in the theory of self-determination is the principle of Autonomy. The study's findings revealed that the students were satisfied with learning the study unit on the IL campus since it offers flexibility and autonomy, and the lecturer promoted autonomy by allowing students to choose between self-learning and peer learning. This combination of flexibility and autonomy led to a satisfying, engaging, and supportive learning experience. Based on this finding, it can be concluded that

combining a structured and professional study unit while providing autonomy, flexibility in the schedule, and a choice between independent or collaborative learning can increase student satisfaction.

According to self-determination theory, people function positively when others support their autonomy rather than control their behavior (Ryan & Deci, 2000). Furthermore, A study by Reeve and Cheon (2021) reinforces the vital contribution of providing autonomy in learning processes. The findings from 51 autonomy-supportive teaching interventions show that autonomy-supportive teaching produces a wide range of educationally significant climate benefits for students, teachers, and the classroom.

In addition, Guay (2022) conducted a literature review of various SDT studies. The review revealed that different types of autonomy result in positive student outcomes. More autonomously motivated students tend to perform better academically, persist longer, learn more effectively, experience greater satisfaction, and have more positive feelings regarding school.

Recent research by Gilbert et al. (2021) suggests that teacher autonomy support may reduce students' tendency to compare themselves to their classmates. These findings are consistent with this study's findings, which found that the students indicated that they intend to apply their positive experiences with their pupils when they become actual teachers.

5. IMPLICATION

- Academic Lecturers, especially those in teacher training colleges, are encouraged to incorporate structured study units from online campuses. The courses developed by experts are structured and professional and provide immediate feedback, enhancing the student's sense of competence.
- In addition, it is recommended to combine structured and professional study units from an online campus while providing autonomy and flexibility through a timetable and providing a choice between self-learning and peer learning. Autonomy is essential for promoting student motivation.
- It is recommended to combine study units from an online campus while establishing an inclusive and supportive environment that fosters a sense of belonging. Providing personal support and addressing potential barriers that prevent students from feeling part of the innovative learning community may significantly improve students' educational experiences and outcomes.

6. LIMITATION

The study involved 30 students who completed questionnaires and 22 who participated in interviews. The small sample size might restrict the generalization of the findings.

The study focused on students from one college. Therefore, the findings may not apply to students from other educational institutions.

The research was conducted over one semester, encompassing 13 lessons. This limited timeframe may have restricted the depth of data collection and analysis.

7. RECOMMENDATIONS FOR FUTURE RESEARCH

Future research could involve a larger sample size to improve the generalizability of the findings. This would provide a more comprehensive understanding of student satisfaction while integrating a study unit from an online campus into an academic course.

It is recommended that future research includes participants from multiple colleges to assess the consistency of findings across diverse educational settings.

In future research it is recommended to carry out research over a longer period of time. Continued research may provide a richer understanding of student's experiences and perceptions and validate the findings.

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