

A Hermeneutic Phenomenological Study on the Hybrid Learning Lived Experiences of University Students after the COVID-19 Pandemic

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ABSTRACT

Purpose- The COVID-19 pandemic had a far-reaching impact on the global education sector, and the hybrid learning model, as an important measure to cope with the pandemic, was widely promoted among university students and profoundly changed their learning and life experiences. The purpose of this study is to apply an hermeneutic phenomenological research methodology to summarize the lived experience of university students' hybrid learning during and after the COVID-19 pandemic. In this way, it aims to understand the challenges, successes, and transformative impacts faced by university students in hybrid learning environments, and to provide practical recommendations and insights into educational practices and policies for hybrid learning.

Design/methodology/approach- This study mainly utilized the hermeneutic phenomenology research method, which is a qualitative research method. The research sample was taken from Changchun University of Technology, and semi-structured interviews were conducted with 10 master's degree students from this university to understand the different experiences of the students during and after the COVID-19 pandemic. Thereafter, the interviews were organized and coded in six steps to organize and interpret the students' lived experiences.

Findings – By summarizing the transcripts of the student interviews, the study summarized the interviews into three main themes: Agency, Transformative effects, and Dilemmas, with nine sub-themes under each theme. This study summarizes and explains how college students perceived their hybrid learning experiences during the epidemic, providing important perspectives for the subsequent development of hybrid learning policies.

Keywords: COVID-19; Hybrid learning; Lived Experience; Hermeneutic Phenomenological

1. Introduction

1.1 Background of the Study

The highly contagious new coronavirus pandemic has had a profound impact on the global education system. An important response to the crisis is the adoption of a hybrid learning approach, which combines face-to-face instruction with online instruction (Li et al., 2021). Prior to the pandemic, the hybrid learning model typically involved students engaging in a mix of face-to-face classroom instruction and virtual learning activities through digital platforms. This flexible and dynamic approach to learning aims to leverage the strengths of both traditional and online learning to provide learners with a more personalized and adaptable educational experience (Haningsih & Rohmi, 2022; Beatty, 2019). In hybrid learning, educators typically organize course content according to the logical structure of cognitive thinking before disseminating it, and students are required to understand the material (Capone, 2022). This process takes place online, and the amount of time students invest is not limited by the instructor; the focus is on achieving full mastery of the course content. Afterward, both instructors and students

return to the traditional teaching model to further their knowledge (Mazrooei, 2022).

In response to the uncertainty surrounding the COVID-19 pandemic, universities in Jilin Province, China, adopted a hybrid learning approach for the 2021-2022 academic year (Dong and Yang, 2022). During this phase, many schools implemented online learning during the first two weeks of the semester. Students studied online in their dormitories while faculty members taught remotely from home. The purpose of this practice was to prevent students from different provinces from bringing the virus to campus and to reduce the risk of an outbreak. Exams are also conducted online to minimize student clustering (Jandrić et al., 2022).

As the outbreak stabilizes in 2023, the Chinese Ministry of Education has transitioned back to traditional face-to-face learning to facilitate efficient interaction and communication between students and teachers (Chen, 2022). It is now necessary for students and teachers to return to offline environments and engage in traditional learning methods. During these three years, universities and educators have made significant progress in developing online teaching and learning systems and programs (Cao, 2023). For example, various educational institutions launched online teaching platforms for students to learn at home. The emergence of online instructional systems has provided students with a more efficient pace of learning (Simamora, 2020). In addition, in the wake of the pandemic outbreak, schools have increased the flexibility and adaptability of their online course offerings to make them more responsive to students' learning needs (Farsawang, 2023).

However, after 3 years of online learning habits, students have become accustomed to online learning (Kang, 2021). Students' life experiences are changing (Jubran et al., 2023). The boundaries of the traditional classroom have expanded to allow seamless communication and learning through virtual platforms. Notably, universities in Jilin Province, China, have actively implemented hybrid learning strategies, effectively maintaining educational continuity throughout the pandemic (Dong & Yang, 2022). The shift to hybrid learning has brought about significant changes to the teaching and learning environment, presenting students with a variety of challenges and opportunities. Understanding how students navigate this shift, how it affects their educational experience, and how it impacts their overall well-being is critical to guiding educational practice and policy development (Weaver & Swank, 2021).

Students' "lived experiences" during and after the COVID-19 pandemic, particularly in the context of hybrid learning, have become a topic of interest to educational researchers. The results of this study can inform educational institutions and teachers to improve instructional design, support services, and strategies to optimize student experiences and success in hybrid learning environments. By drawing on students' subjective perspectives, educators can better understand the challenges they face and develop targeted interventions (Imran, 2023).

1.2 Research Problem

Hybrid instruction allows students to experience both face-to-face and online learning, as well as scheduled and self-paced classwork (Han et al., 2020). This form of instruction can be the new norm as it allows instructors to reinvent and revise the content especially in disciplines where instructors struggled to provide engaging learning experience for students in an online medium of instruction (Razeeth et al., 2019). In every field, change comes with questions. There is a clear need for research to demonstrate the effectiveness of hybrid learning teaching and how teachers can design the curriculum to make it the teaching style of choice in the current era and in the future after a sudden public emergency.

And, though hybrid learning has offered a solution to ensure educational continuity during the crisis, there is limited knowledge about the lived experiences of universities in Jilin Province of China's students in the context of this new learning modality. Understanding the challenges, successes, and transformative effects experienced by students during and after the pandemic is essential for informing educational practices and policy decisions (Brammer & Clark, 2020).

Based on the current research landscape, existing studies tend to focus more on technological aspects and quantitative measures of effectiveness, lacking comprehensive research that probes the nuanced and multifaceted nature of students' lived experiences (Prosek & Gibson, 2021). While such research provides valuable insights into the effectiveness of technology in education, it tends to overlook the deeper and more nuanced aspects of students' lived experiences during online learning (Barber, 2023). Therefore, there is a need for an in-depth exploration of universities in Jilin Province of China's students lived experiences of hybrid learning, employing a hermeneutic phenomenological approach to capture the essence of their perceptions, emotions, attitudes, and behaviors.

1.3 Research Questions

Based on the above research problem, the following four research questions of this study can be articulated as follows:

RQ1: What are the lived experiences of Jilin University students during and after the COVID-19 pandemic in the context of hybrid learning?

RQ2: How do Jilin University students interpret and make sense of their experiences with hybrid learning?

RQ3: What are the challenges, successes, and transformative effects experienced by Jilin University students in the hybrid learning environment?

RQ4: How can the insights gained from Jilin University students' lived experiences inform educational practices and policies regarding hybrid learning?

1.4 Research Objectives

The research objective of this paper is to summarize how university students perceive the experience of hybrid learning during the epidemic through an hermeneutic phenomenological approach and to use this to guide the development of educational policy. The specific research objectives are as follows:

- 1、 Interview students at Changchun University of Technology through semi-structured interviews to communicate and understand university students' life experiences during and after the epidemic.
- 2、 To analyze the interviews and summarize the themes through hermeneutic phenomenology.
- 3、 Explain the challenges, successes, and transformative effects of students' experiences in a hybrid learning environment based on the summarized themes.
- 4、 Make policy recommendations based on the findings of the interviews.

1.5 Significance of Study

The proposed hermeneutic phenomenological study on Jilin Province of China university students' lived experiences of hybrid learning during and after the COVID-19 pandemic holds significant importance. Understanding student perspectives is crucial for educational institutions and policymakers. By capturing the subjective realities and interpretations of students, this research will provide valuable insights into the challenges, successes, and transformative effects of hybrid learning that may have been overlooked in previous research. Incorporating student voices will contribute to a more student-centered approach to education, informing decision-making processes and ensuring that future educational strategies address their specific needs and concerns (Batac et al., 2021).

The research will contribute to the academic discourse on hybrid learning. This study represents the first-time research methodology, hermeneutic phenomenology is used to uncover meanings in university students' hybrid learning. The findings and conclusions from this study will contribute to new knowledge.

1.6 Limitations

While the proposed study on Jilin University students' lived experiences of hybrid learning during and after the COVID-19 pandemic holds significant value, it is important to acknowledge its potential limitations. Firstly, the study's findings may be limited in generalizability beyond the specific context of Jilin University. The experiences and perspectives of the participants may be influenced by the unique institutional and cultural factors present at Jilin University, making it challenging to extrapolate the findings to other universities or educational settings.

Secondly, the participants who voluntarily participate in the study may have distinct characteristics, motivations, or experiences that may not fully reflect the broader population of Jilin University students. Additionally, the reliance on self-reported data through interviews introduces the potential for recall bias or subjective interpretation.

Lastly, the study's focus on lived experiences may limit the ability to examine broader systemic or structural factors that influence hybrid learning. While the study aims to provide rich insights into individual experiences, it may not fully capture the larger institutional, societal, or technological influences on hybrid learning..

2. Literature review

2.1 Definition of Hybrid Learning

The concept of 'hybrid learning' has been delineated by a multitude of educators and academics since the commencement of the 21st century (Boyarsky, 2020). A common thread running across these several definitions is the notion that hybrid learning, often referred to as hybrid learning, is an educational methodology that integrates conventional in-person teaching with online learning elements (Carver-Thomas et al., 2021). According to Bozkurt (2019), hybrid learning refers to a range of learning activities, including formal, informal, and non-formal, that are supported by information and communication technologies. The primary aim of hybrid learning is to

reduce the physical and psychological distance between learners and educators, thereby fostering increased interactivity among learners, learning sources, and facilitators. The hybrid learning paradigm involves students participating in a blend of in-person classroom sessions and virtual learning activities enabled by digital platforms.

2.2 Hybrid Learning and COVID-19 Pandemic

Considering the detrimental effects of the global pandemic on the field of higher education, as acknowledged by UNESCO (2020), there has been a notable surge in scholarly attention towards comprehending the progression of research on hybrid learning in higher education pertaining to the COVID-19 crisis, both prior to and subsequent to the onset of the pandemic. According to Kang (2021), educators need more time for preparation as they transition to teaching and learning activities in the post-COVID-19 era. The integration of hybrid learning requires a significant allocation of time, as the creation of hybrid learning courses often entails two to three times the amount of effort compared to the development of standard courses.

According to Phillips et al. (2021), the post-COVID-19 era has ushered in a paradigm shift in hybrid learning, emphasizing qualities such as engagement, efficiency, and personalization. This shift centers on the learner's experience and places an increased focus on self-directed, convenient, and context-aware education. Hybrid learning, therefore, holds the potential to reform the existing university education system, subsequently impacting the quality of both student learning and teaching (Li, 2021).

Preceding the onset of the COVID-19 pandemic, the predominant mode of instruction involved students engaging in classroom-based learning under the direct guidance of teachers. This face-to-face learning environment provided an effective means for educators to deliver instruction. Subsequent to the pandemic's impact, students increasingly found themselves in hybrid learning settings, primarily utilizing online platforms for their educational pursuits. Consequently, the supervision and evaluation of students' work transitioned into the digital realm. As elucidated by Marinoni et al. (2020), educators face the challenge of maintaining students' focus and preventing distractions during online instructional activities.

For a successful transition of students and educators back to physical classrooms through the hybrid learning approach, it is imperative to offer continuous support and opportunities for professional development. Teachers must receive training on proficiently incorporating technology into their teaching methods, designing hybrid learning experiences, and adeptly managing the combination of online and in-person interactions. The provision of ongoing assistance and fostering collaboration among educators can cultivate a culture of innovation and continuous improvement, ensuring they possess the requisite skills for navigating the hybrid learning environment, as highlighted by Raes (2022). However, it's worth noting that the existing body of research primarily focuses on hybrid learning scenarios that transpired either prior to or during the COVID-19 pandemic. Subsequently, there is a noticeable gap in research pertaining to the novel forms of hybrid learning that have emerged post the pandemic's policy relaxations.

2.3 Hermeneutic Definition of Lived Experience

Hermeneutic phenomenological study primarily centers on the interpretation of meaning, with a particular emphasis on hermeneutics. This is shown by the hermeneutic understanding of lived experience, as articulated by Zahavi (2019). The concept of lived experience, also known as *Erlebnis*, encompasses the combination of these two significations. The direct encounter with a phenomenon serves as the foundational material that can be molded through the acts of interpretation, reinterpretation, and communication, ultimately resulting in its enduring manifestation, referred to as the experienced state (Gadamer, 1984). This process aligns with what Lindseth and Norberg (2022) identifies as the sensemaking process within the realm of organizational studies. According to Gadamer (2016), a lived experience possesses a distinct significance that extends beyond mere existence, since its very act of being experienced leaves a lasting effect. The hermeneutic framework employed in this understanding of lived experience highlights the fundamental importance of the meaning ascribed to said experience. A comprehensive portrayal of lived experience is deficient if it remains solely descriptive; it necessitates the inclusion of an interpretation that elucidates the personal relevance..

A hermeneutic phenomenological research study is used to answer the question, "What is it like to experience a certain phenomenon?" Phenomenological questions (both research questions and interview questions) are limited to experiences and do not ask about opinions, perceptions, or perspectives (Crowther & Thomson, 2020). The focus is on the "lived experiences." By employing hermeneutic phenomenology, researchers can uncover the essence of the students' experiences, delving into their perceptions, emotions, attitudes, and behaviors related to hybrid learning (Mertel, 2020).

Phenomenology encompasses both a philosophical movement and a collection of qualitative research approaches (Larsen & Adu, 2021). According to Van Manen (2016), the following statement was expressed:

Phenomenology, as applied to the field of education, should not be seen merely as an "approach" to the examination of pedagogy. The scope of the human sciences extends beyond providing just alternate descriptions or explanations of educational occurrences. Instead, they concentrate on reflexively uncovering the fundamental underpinnings that, in a profound way, enable our instructional engagement with students.

Hermeneutic phenomenology focuses on the subjective experiences of individuals. Among the various qualitative approaches available, hermeneutic phenomenology emerges as the most suitable approach for examining hybrid learning, owing to its distinct ability to explore the fundamental meanings inherent in lived experiences (Zahavi, 2019).

3. Methodology

The research design employed in this study was a hermeneutic phenomenological approach, chosen for its suitability in investigating a complex phenomenon that is challenging to capture due to its fragmented and often overlooked nature. Hermeneutic phenomenology aims to reveal the unique experiences of individuals, emphasizing their historical background and contextual factors. It differs from other scientific approaches by prioritizing insightful descriptions of people's pre-reflective experiences of the world, without imposing rigid categorizations or abstractions (Adams, & van Manen, 2017).

Hermeneutic phenomenology offers a valuable framework for exploring and interpreting individuals' lived experiences. Rooted in philosophical hermeneutics, this methodology focuses on the interpretation of lived experiences to gain a deeper understanding of individuals' subjective realities (Dodgson, 2023). Applying this approach to study the lived experiences of Jilin University students can provide nuanced insights into the multifaceted aspects of hybrid learning, shedding light on the challenges, successes, and transformative effects experienced by students during and after the COVID-19 pandemic (Nigar, 2020).

3.1 Data collection

3.1.1 Sampling methods

The research object of this study is the master's degree students of Changchun University of Technology, the study selected 10 students as the research object, including 5 male students and 5 female students, these students have experienced the complete new crown pandemic interval on campus, which is in line with the homogeneous characteristics of the hermeneutic phenomenological study of the research object.

The specific process of selecting research subjects is as follows: firstly, a total of 28 student groups who were willing to participate in the interviews were recruited through electronic questionnaires and cellular phones, and then purposive sampling was used to select 10 compliant research subjects from them. The selection criteria included (1) the students' majors had adopted hybrid learning after the outbreak (2) the students could clearly express their own views on hybrid learning and were willing to share their life experiences. Table 3.1 below demonstrates the characteristics of the research subjects screened for this study.

Table 3.1 Characteristics of Research Subjects

Student	Majors	Grade	Genders
M1	Chemical pharmaceutical	first-year postgraduate student	Male
M2	Industrial engineering	first-year postgraduate student	Male
M3	Biologic	second-year postgraduate student	Male
M4	Business management	second-year postgraduate student	Male
M5	Materials Science and Engineering	second-year postgraduate student	Male
F1	Accounting	first-year postgraduate student	Female
F2	Public Administration	first-year postgraduate student	Female

F3	Chemical	first-year postgraduate student	Female
F4	Information and Communication Engineering	second-year postgraduate student	Female
F5	Mechanical engineering	second-year postgraduate student	Female

3.1.2 Research tools

In this study, semi-structured interviews were conducted with each student individually and each interview lasted approximately 60-90 minutes. A concise interview outline was used prior to the interview to enable the interviewee to understand the topic of interest to the researcher, so that he/she could fully share his/her own experiences and feelings about hybrid learning during the New Crown epidemic. The interviews were audio-recorded, transcribed into text after the interviews, and coded and analyzed using NVivo software.

3.2 Data analysis

Phenomenology in the field of education should not be seen merely as an "approach" to the examination of pedagogy. The scope of the human sciences extends beyond providing simplistic alternative definitions or explanations of educational occurrences. Instead, they concentrate on reflexively uncovering the fundamental foundations that, in a profound way, enable our pedagogical engagement with students (Van Manen, 2023).

The primary objective of phenomenological analysis is to comprehend and elucidate the significance, organization, and fundamental nature of the phenomena being examined, with the intention of converting this study into conclusive outcomes (Jun et al., 2023). The study drew upon the systematic techniques of Van Manen (2023) and Gadamer (2016) to guide the hermeneutic phenomenological analysis, however there is no universally prescribed approach for this type of analysis.

Consistent with the approach employed in this study, the data analysis techniques were derived from phenomenological and hermeneutic concepts, as well as from established standards in the literature pertaining to systematic and effective methods of interpreting research data. Consequently, the methodologies employed in this study were tailored to the unique research objectives, while also incorporating insights and expertise from established scholars in the domain of hermeneutic research. The analysis consisted of six steps (see Table 3.1).

Table 3.2 Data analysis phase

STAGE	TASKS COMPLETED
1.Immersion	Organizing the data-set into texts Iterative reading of texts Preliminary interpretation of texts to facilitate coding
2.Understanding	Identifying first order (participant) constructs Coding of data using NVivo software
3.Abstraction	Identifying second order (researcher) constructs Grouping second order constructs into sub-themes
4.Synthesis and theme development	Grouping sub-themes into themes Further elaboration of themes Comparing themes across sub-discipline groups
5. Illumination and illustration of phenomena	Linking the literature to the themes identified above Reconstructing interpretations into stories
6.Integration and critique	Critique of the themes by the researchers and externally

3.3 Ethical considerations

This study was approved by the university and all participants are voluntary and signed an informed consent form. Prior to the start of the study, participants were informed of the sensitivity of the study and could withdraw

from the study at any time. All participants were willing to share their experiences, each time individually, and information about the participant's name was withheld from the article.

3.4 Rigor

The validation strategy was informed by Creswell's (2013) research strategy. The research team held monthly discussion meetings to organize and reflect on the research and provide feedback. Multiple rounds of checking were conducted on the interview transcripts, and the findings were fed back to the member participants to confirm that the findings accurately reflected the participants' perspectives and experiences. Triangulation was utilized to confirm that the narratives of the interviewees were factual.

Chapter 4 Result

Recruitment of research participants for this study began with the end of 2023 and interviews began with January 2024, with all two rounds of interviews completed by June 2024. Five themes and 15 sub-themes were finalized after a six-step approach to content analysis (Van Manen, 2023), and Table 4.1 shows the Overview of themes.

Table 4.1 Overview of themes

Themes	Sub-themes
Agency	Self-empowerment Self-understanding Intentionality
Transformative Effect	Change of role Knowledge Diversification Effective communication
Dilemmas	Classroom management Network Constraints Loneliness and distress

4.1 Themes 1: Agency

The hybrid learning model has a stimulating effect on the agency of university students to learn. The epidemic has made the learning environment play a huge change, and hybrid learning has become the main mode in universities. It breaks the limitations of traditional face-to-face lectures and provides students with more opportunities for independent learning. Students make intentional choices to study according to their own learning pace and interests, which helps to stimulate students' sense of independent learning. At the same time, students need to face problem solving independently, which also cultivates their ability to think independently and promotes the enhancement of their self-knowledge.

4.1.1 Self-empowerment

Self-empowerment is one of the most important ways to embody subjective initiative. In a hybrid learning situation, students actively access learning resources and control their learning progress through self-empowerment. Self-empowerment means that students are no longer passively waiting for the teacher's arrangement, but actively creating favorable learning conditions for themselves, which is the active play of students' subjective initiative in the face of changes in the hybrid learning mode during and after the special period of the epidemic. Through self-empowerment, they gradually became the leaders of their own learning in the learning process, reflecting a positive attitude of coping with the new learning environment, which is closely linked to subjective initiative and is an important way and means of realizing it. The interviewed student F1 clearly expressed his recognition of the change in the learning mode, which allows him to have a freer learning arrangement. The student's search for knowledge through the Internet is a supplement and enhancement of the knowledge learned in the classroom, and at the same time, his participation in the online entrepreneurship program even in the context of the epidemic is a practical application of what he has learned, which proves the enhancement of hybrid learning to his subjective initiative.

"F1 : I no longer relied on teachers to schedule my learning progress, and I could search online for relevant knowledge. During the pandemic, I participated in a research project on online entrepreneurship."

Student F5 expressed a preference for the online mode of learning because of the ability to schedule study

time at any time. For students with more flexible schedules and stronger independent learning abilities, online learning provides more opportunities to freely dispose of their study time. They can study during the time when they are full of energy and active in thinking, which improves their learning efficiency. At the same time, for some content that needs to be learned and understood over and over again, the repeatability of online learning also provides convenience for students.

“F5 : Personally, I prefer online learning because it allows me to study anywhere and at any time.....I can arrange my own time and study when I want. Offline learning requires me to attend classes at fixed times and places, and I always feel like my time isn't enough.”

M1 expressed that they used to be embarrassed to ask their classmates about problems, but now they try to solve them by themselves first. This reflects that students have not only realized self-empowerment in problem-solving methods in hybrid learning, but also made positive adjustments in their mindset. By overcoming their inner barriers and taking the initiative to take responsibility for solving learning problems, they developed self-confidence and courage to solve problems independently. At the same time, in the process of continuous self-exploration and problem solving, students gradually accumulated rich learning experience, improved their ability to cope with various learning difficulties, and further strengthened the effect of self-empowerment.

“M1: Sometimes, I feel embarrassed to always ask my classmates because I'm afraid they'll think I'm not doing well. So later on, I try to figure things out on my own first. It's great now, there are a lot of learning platforms that can help me solve problems quickly in recent years.”

4.1.2 Self-understanding

Self-understanding is an integral part of subjectivity in the hybrid learning process. Students continue to deepen their self-understanding by recognizing their own learning styles, strengths and weaknesses. For example, some students find that they learn more efficiently by reading e-documents for theoretical knowledge in online self-directed learning, but need more interactive communication when learning practical operational knowledge. Based on this self-understanding, they can adjust their learning strategies to better adapt to hybrid learning. This self-understanding helps students to clarify their needs and directions in a complex learning environment, and then to utilize their subjective initiative in a targeted way.

Students F1 and M5 both mentioned in their interviews that they were introverted and did not communicate well with their teachers in face-to-face lessons. This type of student is very common in China, and in the hybrid learning model, this type of student becomes more confident and natural. This reflects the students' clear understanding of their own personality traits and how different environments affect them. They realize that in an online learning model they can compensate for the disadvantages of their personality in offline learning and can express their views more comfortably online. As they become more engaged, they discover their own potential and deepening their understanding of communication.

“F1: Because I'm quite introverted, I'm usually not very comfortable asking questions directly to the teacher offline. But online, I'm not that shy because I can't see everyone's faces. I've become a lot more confident.”

“M5:I often ask questions, especially during online classes. We don't have to face the teacher to ask questions, because I'm afraid of embarrassment during face-to-face classes. I'm more natural online.”

In addition, self-understanding is also reflected in insights about one's strengths competencies and learning preferences.M3 expressed a preference for electronics, which allowed him or her to perform better in online learning, suggesting that students discovered their strengths competencies in areas related to electronic devices and recognized how these strengths could be useful in their learning through a variety of experiences in the hybrid learning process.M2 enjoyed browsing forums and participating in topic discussions and gained a sense of accomplishment in the process as a result of others recognizing ideas. This shows that students gain insights into their interests and abilities in communication and sharing through interest-oriented activities outside of the diverse learning activities offered by hybrid learning. They understand the kinds of activities in which they derive a sense of satisfaction and value, and thus relate this understanding to their learning.

“M3:I didn't learn much from face-to-face classes because I was always slipping away. It's different now, I feel like I'm an honor student. Because I really like to play with electronics. I am good at learning in online learning sessions.”

“M2:I like to browse through forums and topics when I'm bored. If I find an interesting topic, I join the discussion and the other person listens carefully to what I share. Others will give me a thumbs up for my views. It's a great feeling.”

4.1.3 Intentionality

Intentionality is manifested in the mixed learning subjectivity of college students in the form of clear learning goals and motivation. In the hybrid learning mode during and after the epidemic, students carried out learning activities with certain intentionality. For example, some students intended to improve their professional skills to enhance their competitiveness in future employment, while others wanted to satisfy their curiosity and desire to explore knowledge. This intentionality drives students to actively engage in hybrid learning, actively utilize various learning tools and resources, and overcome difficulties encountered in the learning process.

M1 mentioned that hybrid learning enabled her to search for more herbal materials in the Internet anytime and anywhere to improve her practical skills. This suggests that students have a clear learning goal in hybrid learning, i.e., to enhance their professional skills in a specific field by taking advantage of hybrid learning. This goal orientation makes students more proactive in exploring various learning resources and methods in the learning process to achieve their professional growth.

“M1: Hybrid learning allowed me to search for more material medica in virtual space anytime and anywhere, improve my practical operation capabilities.”

Student F4 expressed satisfaction and excitement when having the flexibility to use online resources and tools for learning, and that this autonomy allowed him/her to organize his/her study plan and style at his own pace, increasing the autonomy and efficiency of his learning. This reflects that students have a clear intention to pursue efficient learning styles and autonomous learning experiences in hybrid learning. They actively explore a variety of online resources and tools in order to find the most suitable learning method for them and to maximize their learning efficiency. Students M2 and F3 similarly expressed the view of pursuing learning efficiency and autonomy.

“F4: Sometimes I feel satisfied and excited, especially when I can use online resources and tools flexibly for learning. This autonomy allows me to arrange my schedule and learning style according to my pace, enhancing the sense of autonomy and efficiency in learning.”

4.2 Themes 2: Transformative Effect

During the epidemic Chinese universities were always exploring new modes of teaching and learning to adapt to the changing environment, an impact that led to the rise of hybrid learning, which changed the role of students in traditional education, while expanding the ways in which they could acquire knowledge and breaking through the spatial constraints of traditional teaching and learning.

4.2.1 Change of role

Hybrid learning has brought about a change in the role of the learner, a change that was easily detected in the students interviewed. In making the change to a hybrid learning model of teaching, many teachers also had difficulty adapting to the new model of teaching, especially the use of online teaching tools. Some students also used this to become teachers' assistants, e.g., Student F3, as a member of the study committee, mentioned several times that he helped teachers with their work. It was also evident from their responses that the behavior allowed the students to gain more self-satisfaction and a deeper understanding of the purpose of teaching as they participated in the process. The environment of the new crown epidemic prompted more active online communication, and the existence of learning groups in teams facilitated students' awareness of their respective roles and abilities, with student F1 stating that he was elected team leader because he was good at making PPTs, and M4 expressing satisfaction with better team relationships.

“F3: I am a member of our professional study committee. I feel that I am more fulfilled than before, and I have done a lot of work that should have been done by the teacher before.”

“F1: Now not only do we have the whole class together, but we also have a group of 6 people in the professional course to complete homework or discuss topics. Because I did a good job in PPT, everyone always asked me to be the team leader.”

“M4 : We have online study groups for each course. Group members are randomly assigned by the teacher. Naturally, my group and I became very good friends.”

4.2.2 Knowledge Diversification

Another aspect of the transformative impact came from the diversification of access to learning resources. Hybrid learning during the epidemic changed students' perceptions of knowledge acquisition channels, and with limited access to offline lectures, students were forced to turn to online for learning resources, which greatly broadened their access to learning resources. This situation has also been maintained in the aftermath of the New Crown outbreak. Several students such as M1, M5 and M3 mentioned that online access to educational resources

and learning tools had changed their learning habits.

“M1: Not exactly. Sometimes I search for knowledge online because the teacher mentioned it in class but didn't dig further and I found it interesting, so I went back and searched for it. I've found that I can gain knowledge from more places. As long as you want.”

“M5: In the past, I may have relied more on the traditional classroom, and as a student, I felt that the classroom was where I got my knowledge, such as textbooks and teachers. But now that textbooks have moved to my phone, I can study through online video lessons, like on the bus or in bed at night.”

“M3: Most of my phones used to be gaming apps and at the time I thought my phone was just a toy. But now, look (show me his home screen), I have a folder full of apps related to studying and taking classes. I spent half of my time studying on it. Now it's not a toy, it's my teacher.”

It is also evident here that hybrid learning has enabled students to develop the benefits of diversified access to learning resources and has formed a habit of doing so, and that students have been truly benefited by the benefits of diversified channels and have remained cognizant of them in the aftermath of the epidemic.

Diversified access to learning resources has, on the other hand, enhanced students' ability in information gathering and resource utilization, and promoted the enhancement of students' abilities. In traditional learning, classroom time is usually tight, and students may find it difficult to digest what they have learned in the limited time available. However, in a hybrid learning environment, students can make more in-depth use of learning resources and learning tools to assist their learning, such as playback of online courses and sharing of class notes. This was also mentioned many times in the interviews with students, for example, student F3 pointed out that the functions of the learning platform, such as memo and task list, were initially found interesting and gradually developed the habit of using the software to record stage-by-stage tasks. This not only cultivated students' good learning planning and task management skills, but also improved the organization of learning. At the same time, student F4 mentioned that taking notes online makes it easier to find information offline and saves time and improves efficiency, indicating that students have learned to integrate online and offline resources to optimize note-taking and knowledge organization in the learning process.

“F3: Because various learning platforms offer various features like memos, task lists. At first, I just thought it was funny. After that, I never used a notebook or pen to record again. Gradually, I developed the habit of recording phased tasks in the software.”

“F4: As we transitioned to hybrid learning, I found that note-taking became more effective. I will use my own notes online to take good notes, and the information is easier to find during offline classes, which saves a lot of time and improves my learning efficiency.”

4.2.3 Communication

Communication plays a bridging role in hybrid learning. In the learning process, communication between students and teachers is crucial. Through online communication tools, such as emails and the message area of the learning platform, students can ask teachers for advice and feedback on their learning difficulties in a timely manner, and teachers can also give guidance and help quickly. Face-to-face communication in the offline classroom helps teachers understand students' learning status and needs more intuitively, and provide targeted counseling. Effective communication between students is also indispensable, whether it is discussing academic issues online or exchanging feelings about life offline, which helps to create a positive learning atmosphere.

Many of the learning interviewees mentioned in the interviews the tools they used for communication in hybrid learning, and many of them are also online course delivery tools, such as Learning Pass, Ding Talk, and Tencent Meetings. Taking Learning Pass as an example, its discussion board function allows students to leave messages and ask questions to the teacher at any time, and the teacher can answer the questions in the subsequent offline classroom, which overcomes the problems of untimely replies or awkward exchanges that might have existed in the past with a single mode of communication (e.g., WeChat). DingTalk facilitates transactional communication such as logging in and signing in, while Tencent Meeting supports online meeting communication, which is more convenient and efficient for both group discussion and Q&A between teachers and students. This multi-platform application makes communication no longer limited by time and space, and allows communication and interaction anytime and anywhere.

“F2: Now let's use the Learning Pass to connect with the teacher a little bit more. In the past, I could only use WeChat, but the teacher always didn't reply, and I was embarrassed to ask questions repeatedly. Learning Pass is different, you can create a virtual class on it, and there is also a discussion board function in it, we can leave a message for him, and the teacher will answer us in the next offline class.”

“M1: We used DingTalk to log in and sign in, used Learning Pass to listen to courses, and held meetings on

Tencent Meeting. We had more ways to communicate privately or in groups with teachers. I don't have to worry about the situation like before, that I can only look into the teacher's eyes face to face.”

In addition, online and offline in the communication level there is a complementary role, offline communication of emotional exchanges more direct, while online communication breaks through the geographical and time constraints. Problems that can not be solved offline can also be continued through online discussions, further feedback and summarization, to achieve an all-round integration of communication and improve the accuracy and effectiveness of information transfer. Student F1 mentioned that he was shy and had little communication offline, but was able to actively participate in communication on the platform.

“F1: The online learning platform offers many interactive activities, such as Q&A, discussion forums, etc.. I am shy and rarely communicate with everyone. Hybrid learning is good, I can just listen and learn when I'm learning face-to-face, and then communicate with teachers and classmates on the platform.”

4.3 Themes 3: Dilemmas

Not all that hybrid learning brings is beneficial. After all, the adoption of hybrid learning is a reactive change due to the epidemic. Therefore, there is bound to be resistance in the implementation process, and it also brings teachers and students very much trouble. From the teachers' point of view, on the one hand, there is a lack of teaching experience in hybrid learning, and some teachers have difficulties in using the relevant teaching tools alone, and on the other hand, many teachers are not adapted to teaching in front of a camera. From the students' point of view, many interviewees also put forward their own difficulties in hybrid learning, mainly including management factors, environmental factors and psychological factors.

4.3.1 Classroom management

Hybrid learning is, after all, a new mode of teaching, in the early stages of the epidemic after the rapid online especially in the online course class management is often more chaotic. The most important manifestation of this chaos is the interaction in the online classroom, where teachers often have multiple answers to questions or students fail to turn off the microphone, and teachers are unable to maintain classroom order as in the offline classroom. This type of problem was raised by student M4.

“M4: I actually dislike a situation where, at the end of class, the teacher asks if anyone has questions and can unmute to ask. When everyone has different questions, and everyone unmutes at the same time, my voice gets drowned out, and the teacher can't hear me. By the end of class, my question still hasn't been answered.”

This reflects the fact that online classes are more complex to manage than offline classes, and although this can be avoided by including a classroom facilitator in hybrid learning at a later stage in the school, it is equally demanding on staff. The online classroom requires more initiative from the students and can easily distract them, which is a great challenge for them. In addition, China's strict immunization policy makes teachers uncertain when scheduling online and offline classes, which also leads to confusion in classroom management.

4.3.2 Network Constraints

The inclusion of a large number of online courses in hybrid learning, on the one hand, online courses are highly dependent on hardware, especially when a large number of schools switched to online learning in the early stages of the epidemic leading to network and server congestion, with several students citing network problems, such as M2 and M3; on the other hand, the increase in online courses exacerbated inequities in education. For example, student F3 lived in a rural area and lacked internet support, making it difficult to attend classes when they were closed at the beginning of the epidemic.

“M2: Online classes rely on the internet, so poor network, signal issues, or device problems can affect teaching.”

“M3: We attended online classes, and most teachers used Tencent Meeting and Study Pass platforms for online classes, directly checking attendance on the platform. We don't all turn on the camera, because it becomes very slow to turn on the network all the time.

“F3: Sometimes I can be very anxious. hybrid learning requires a stable network environment and learning devices. Some classmates may live in the countryside which will affect learning efficiency and miss many knowledge points.”

4.3.3 Loneliness and Anxiety

Psychological problems are also one of the main problems brought about by the epidemic. The epidemic has reduced the social activities of students and brought about more loneliness, and the communication among students has been reduced, and the inability to communicate face-to-face has made it difficult for students to vent their emotions. Students are prone to anxiety, which manifests itself in worries about their health, their studies

and their career development. Student F2 expressed her anxiety at not being able to communicate directly with her classmates face-to-face and not knowing their academic progress. The loneliness that comes with studying alone can also lead to a decrease in enthusiasm for learning. Finally, students also lack feedback to teachers, making it impossible for students to accurately interpret their own level of mastery of knowledge, which is also a problem brought about by the epidemic.

“F2: Also, I didn't have a way to communicate directly with my classmates face-to-face. I don't know if they're improving. This makes me anxious.”

“F3: In addition, the face-to-face classroom environment usually provides me with more feedback, such as understanding the lesson content through the teacher's expression, tone, or peer discussion. Now I rarely appreciate it.”

Chapter 4 Discussion and Conclusion

4.1 Discussion

This study explored how university students perceived their experiences of hybrid learning during the New Crown epidemic. Specifically, interviews were conducted to understand university students' experiences of engaging in hybrid learning during the epidemic and their understanding of hybrid learning, which were summarized through an hermeneutic phenomenological research approach. Ultimately, three themes and nine sub-themes were distilled from the analysis of the interview materials. The three themes were Agency, Transformative Effect, and Dilemmas.

Overall, this study concluded that the promotion of hybrid learning in schools implemented because of the New Crown Epidemic was not smooth and experienced a number of difficulties and challenges during its implementation. Particularly in the early stages of the epidemic, the hasty go-live led to disorganization in classroom management, and network and hardware issues also caused some trouble. The main difficulty came from the psychological level of the students, as the prolonged closure led to a rising sense of isolation, which resulted in anxiety about the future, not only about their physical health, but also about their academics and future career development. The group interviewed here were master's degree students, who experienced the epidemic in its entirety, and many of whom reported that employment issues caused them great distress during the epidemic and thus ultimately chose to continue their graduate studies. Of course, these difficulties and challenges have eased as the epidemic has eased, and the hybrid learning model has matured in China's universities, with both teachers and students becoming accustomed to the changes it has brought about. Through the change of learning environment and learning mode, hybrid learning allows students to have more ways to access learning resources and brings diversified learning experiences. While adapting to the hybrid learning model, students also developed their own learning abilities, such as the ability to gather information and the experience of utilizing new learning tools, all of which had a positive impact on their subsequent learning.

Although hybrid learning was mandatory during the epidemic, it was gradually accepted and adapted by the students, and most of the students showed positive attitudes towards the hybrid learning experience after going through it. This made hybrid learning stimulate students' motivation to learn. Despite the pressures of the epidemic, students worked hard to improve themselves through self-empowerment and self-understanding, and students expressed a desire to continue with hybrid learning in the future, which also demonstrates the positive effects of hybrid learning.

4.2 Recommendations

To summarize, hybrid learning has positive significance for students, and the changeable learning scenarios can adapt to the uncertainty of teaching in the post-epidemic era, which should be promoted more, and we should also find a more suitable way to promote it in the light of China's national conditions.

From the policy point of view, first of all, we should accumulate experience in hybrid learning and organize more relevant training for teachers, especially to make them familiar with online teaching methods to avoid confusion in classroom management. Schools can set up a hybrid learning teaching incentive mechanism to reward teachers with excellent performance in hybrid learning mode and encourage experience sharing among teachers. Secondly, schools should increase investment in hardware and software. Hardware should guarantee the stability of online teaching in hybrid learning, and software schools should accumulate online teaching resources. In order to save the overall investment, schools can organize multiple schools to build resources together, give full play to their own advantages in their respective disciplines, share resources, and establish a shared campus community. Of course, schools also need to pay attention to the fairness of education, appropriate care for economically disadvantaged students, so that educational resources can be balanced to benefit all students. Finally, schools

should pay attention to the psychological counseling of students, in the promotion of hybrid learning there are bound to be students who are not adapted to the teachers should pay attention to the communication with students, timely adjustment of teaching strategies to avoid psychological problems.

4.3 Conclusion

The New Crown epidemic posed challenges to both teaching and learning at the university, and hybrid learning coped well with the onslaught of the epidemic during the outbreak, and its benefits were noted by multiple parties, and therefore continued to be used by many schools after the epidemic. Through the experience of hybrid learning during the epidemic, students also acquired more learning skills and were able to adapt to more challenges in the future. Hybrid learning is able to cope with more uncertainty, and schools should also be prepared to promote hybrid learning in order to adapt to the times.

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