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# Bridge Program and its Effects on Student Development

Case: Students Transfer from Middle School to International School in Shenzhen, China

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# ABSTRACT

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Bridge program or summer programs are an important and comprehensive component of the learning curriculum. Bridge programs are used and justified to help first-year students adapt to a new learning environment's academic, social, and cultural aspects. However, there needs to be more empirical research on bridge programs for students transiting from national public schools to international private schools. This paper focuses on the impact and significance of bridge programs for junior students from national public schools to transfer to international private high schools. This study is contextualized in Shenzhen, China, and focuses on Ascend, a summer bridge program designed for upcoming Grade 10 students in an international private school. In this study, bridge programs are intensive but short programs designed to help students adapt to the international school system more effectively. Such programs or summer camps take place before or at the beginning of international school enrollment. The primary purpose of Ascend Bridge program is to help students adapt to international schools' education model, curriculum, and teaching methods, which are distinctive from those of national public schools, and thereby help students adapt to the new learning environment. The bridge programs usually involve language training, academic courses, cultural exchanges, social skills, etc.

This study employs a mix of quantitative and qualitative research methods. In line with the research philosophy and methodology, data is collected through the purposive sampling of an existing database of students' academic performance and focus group interviews. In the data sampling, the author got the GPA, attendance, and leadership data of 44 students in the first semester of senior high school in the 2021-2022 academic year from the administrative section of the workplace. Among the 44 students, half of them participated in the bridge program, while the other half did not. Moreover, their academic admission level belongs to the category of top students. This research also employed a qualitative method to conduct a more detailed study. In April of 2023, to better understand the actual situation of the bridging summer camp, seven questions in the Interview's Question (see Appendix 1) were prepared to be asked when interviewing people who work in the bridge program. Through face-to-face interviews, the Dean of Students, the camp teacher, and a camp event manager who had worked on preparing and implementing the bridge summer camp. Following data collection, the thematic analysis approach is utilized for data analysis for this study.

The current research finds that the bridge program positively impacts students transitioning from national public schools to international private schools in three aspects: academic progress, physical health, and mental health. Specifically, the bridge program helps students understand the international education system in advance, reduces the cost of adapting to the international system, and improves students' confidence and English language and time management ability. The current study's findings also reveal problems with the bridge program's length and curriculum design. To address the problems, the program needs to clarify teaching objectives to help teachers better grasp the focus of the course and design to better accommodate students' needs in the future. Moreover, the author suggests that two weeks will be the minimum duration for the bridge program. Yet, further research should be done to explore the impacts of bridge programs in other school contexts and possible improvement strategies in the future.

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Keywords:  Summer bridge program, Student's personal development, Adaptability, Public transfer to the international education system, China

# CONTENTS

# 1    INTRODUCTION

## 1.1    From Public National School to Private International School

Transiting from national public schools to international private schools is popular among students from affluent families in major cities in China. China's economic development in the past few decades has given birth to high-net-worth families with the financial capacity to choose private and more personalized education for their children (Zhou & Li, 2015). China's public educational system is teacher-centered, rigid, high-pressured, and highly competitive. As a result, many affluent Chinese families would seek an alternative educational path for their children after nine years of compulsory education. Their goal for sending children to international high schools is to address the language barrier and prepare them for study overseas for undergraduate study. After three years of learning and adapting to the international system, they can adapt more calmly to the subsequent overseas university life. In the author's school, 70% of the students are from public schools (Zajda,2014).

However, transiting from a public school learning environment is challenging. Students from national public schools usually struggle with English language ability and need English learning support at the beginning of the first year in an international high school that uses English as the primary instructional language. Moreover, the traditional public education system follows different teaching philosophies and pedagogy, which would shape students toward a learning mindset and habits that international schools do not prefer. National public schools are under restricted federal political regulation and follow a national curriculum (Wang & Zhang,2018).

## 1.2    The Context of ASCEND Summer Bridge Program

In 2021, the author's school designed and delivered the Ascend Summer Bridge program for incoming students to assist first-year students in adapting to international schooling, which is offered entirely in English and involves socializing with teachers and peers in a new campus environment. Ascend is a 7-day project-based, exploratory learning summer bridge program. Within

this short period, students can form teams with their peers based on their interests to complete a project. It aims to cultivate students' awareness of the world's significant challenges through exploration, collaboration, and creative problem-solving rather than simply imparting subject-specific knowledge. By working together to understand problems, generate ideas, and propose solutions, students can gain a higher level of cognition: that the global challenges we face are too significant and complex. Humanity must unite to achieve the hope of sustainable development.

Unlike traditional learning-oriented summer camps focusing on high-intensity classes and problem-solving, the Ascend summer camp does not aim to teach textbook knowledge in a specific field or prepare students for exams. Instead, it offers a free and open learning experience in an international school environment, allowing students to better adapt to the curriculum after enrollment by understanding different learning approaches. Our school expects students to become global citizens, so we hope they will become advocates for social justice, world leaders, and problem solvers. Ascend is the first attempt to help them explore the concept of "global citizenship" before joining our school (Ma, 2021).

According to the program report (Ma, 2021), three key themes have been identified for the ASCEND Bridge Program. The first theme is sustainable community development. The rationale for this theme is that humans have transformed the Earth in ways that would have taken millions of years to occur naturally, but this has come at a cost. Ecological collapse, species extinction, global warming, and frequent natural disasters are the Earth's counterattack against humanity (Wallace,2019). It is essential for us and our young learners to ask: what can we do to reverse this trend gradually? How can policymakers and every member of society act? Therefore, designing a sustainable community for the future is incorporated into the ASCEND program. The second theme is technological development and disruption. Science and technology are indeed the primary productive forces, but the dark side of technological development may consciously overlook (Bijker et al.,1987). Since we cannot escape the use of technology, we should consider how to avoid being bitten back by it in the process. Does it sound too far-fetched? The short video app, customized advertising, online violence, and live-streaming e-commerce have already trapped it, and they may even be overwhelmed. Do we have the ability to control the technology we develop ourselves? The third theme is food safety and public welfare. Food safety issues cover not only the narrow sense of whether food is "safe" (whether additives and pesticides exceed standards) but also the broader issues of food security - whether people can afford to buy food, whether prices are stable, and whether there is enough food to eat (Rosegrant et al.,2009). Both are closely related to the public's standard of living and health. What specific challenges are we currently facing? What can we do to

promote change through participation in public life? Can we avoid the ones we cannot change? How can vulnerable groups survive in the context of food safety?

The learning objectives of the summer bridge program through these topics are as follows:
Through the exploration of these topics, students will acquire skills to cope with the challenges of the 21st century, including how to:

1) Use search tools to search for, identify, and use valuable information on the Internet;

2) Communicate and collaborate with peers, and also assign tasks, and work towards the same project goals;

3) Manage projects during the class, from brainstorming to execution, to ensure that the team completes tasks in an organized, timely, and efficient manner;

4) Prepare psychologically, intellectually, and socially for upcoming learning and life experiences.

In addition to acquiring complex skills, we expect students to progress in their mental and emotional development, including cultivating awareness of social justice and advocating for it, inspiring care for and action toward the ecological environment, and practicing the rights and responsibilities of their communities (Ma, 2021).

For the camp's operations, the author's school has invested in many different roles of faculty and staff to ensure the smooth operation of the summer camp. There is a Dean of Student Affairs, a teacher serving as a project manager for planning and coordination, teaching staff, and after-class activities leaders. There are also student volunteers, student coordinators, school doctors, residential teachers responsible for various aspects of the work, and some administrative and IT staff responsible for operational affairs.

## 1.3    Research Aims and Research Questions

This paper focuses on the impact and significance of bridge programs for junior students from national public schools to transfer to international high schools. This thesis asks: How does a bridge program affect the public middle school student's personal development during their transfer to an international school? This study is contextualized in Shenzhen, China, and focuses on Ascend, a summer bridge program designed for upcoming Grade 10 students in an international private school and seeks to explore the impact of the Ascend summer bridge program on students entering Year 10 at an international private school and evaluate the advantages and disadvantages of the current bridge program as well as make suggestions for improving and strengthening the bridge program.

This study adopts a mixed research method covering qualitative and quantitative research. Through quantitative student academic performance data and structured interviews with relevant personnel and descriptive and thematic analyses (Johnson et al., 2004), the current study reviews the impact of the bridge program on public students' transfer to international schools and areas for improvement and enhancement.

The thesis is structured into six sections that unpack the theoretical background of the terminology used, then explain the methodology used, present the findings, discuss the findings, and finally draw conclusions on the implications of the findings.

# 2 LITERATURE REVIEW

This section focuses on the theoretical background of the summer bridge program and student personal development. This section outlines definitions of the concepts and reviews research relating to the concepts grounding the thesis question so that it is clear on what basis findings are made.

## 2.1 Summer Bridge Program

Bridge program provides students with courses and services to help them adapt to the learning environment and subject requirements of international high schools and to promote the sustained development and comprehensive improvement of student learning outcomes (Zhao et al.,2014). The characteristics of the bridge program include a student-centered approach that emphasizes the development of students' individuality and emotional needs; the adoption of heuristic teaching, inquiry-based learning, situational teaching, and other teaching strategies and methods; and a focus on the cultivation of students' cross-cultural communication skills and global perspectives, emphasizing the internationalization and diversity of education (Zhao et al., 2014). Ma, Li, Liu, & Geng (2019) proposed that a bridge program is a specially designed transition course for middle school students entering international high schools. The course aims to reduce adaptation difficulties, enhance learning efficiency and satisfaction, and cover subject knowledge, learning skills, and cultural exchange.

Based on students' previous knowledge and experience, bridge programs provide diverse learning resources and activities, allowing students to independently choose and explore according to their interests and needs, thereby better constructing and mastering knowledge and skills. Moreover, the bridge program emphasizes personalized and differentiated teaching to enable students to construct and expand new knowledge and understanding based on their existing knowledge foundation (Huang & Chang, 2018).

Bridge program are based on problem-based and inquiry-based learning, encouraging students to actively explore and construct knowledge by presenting open-ended questions and challenges. This approach cultivates students' autonomous learning and problem-solving abilities. It also encourages cooperative learning, where students collaborate with peers, share ideas and

experiences, and collectively construct knowledge and understanding, developing social skills and teamwork spirit. Additionally, the bridge program actively cultivates students' reflection and metacognitive strategies, encouraging students to reflect on their learning process and methods, understand their learning styles and preferences, and adjust their learning strategies and methods for improved learning outcomes (Enochs et al., 2010).

Bridge programs are in line with various learning theories. Constructivist learning theory holds that learning is an active process in which students build their knowledge system by constructing new knowledge and understanding (Ormrod, 2016). This process is based on students' prior knowledge and experience, and students build new knowledge and understanding through interactions with the real world (Papert,1991). In the above view, the Bridge program provides various learning resources and activities, allowing students to choose and explore independently according to their interests and needs to build and master knowledge and skills better. In addition, the Bridge program emphasizes personalized and differentiated instruction that enables students to develop and expand new knowledge and understanding based on their existing knowledge base, which aligns with the core ideas of constructivist learning theory (Grant & Basye, 2014). Therefore, the Bridge program can be seen as an educational practice of constructivist learning theory by providing personalized and differentiated learning opportunities for students to participate in the learning process according to their interests actively and needs to build and master knowledge and skills better (Hall et al.,2011).

Sweller's views on the Cognitive Learning Theory can be found in many of his published works, including his book "Cognitive Load Theory" (2011), which discusses the role of working memory and long-term memory in the learning process, as well as the effects of instructional design on cognitive load and learning outcomes. Cognitive learning theory posits that learning is an active mental process of constructing knowledge through the interaction of new information and existing cognitive structures (Sweller, 2011). This process can be influenced by instructional design and cognitive load. The critical contribution to the Cognitive Learning Theory is the concept of "cognitive load," which refers to the amount of mental effort or resources required to process information. Instructional design should aim to reduce cognitive load by presenting information in a way that is easy to process and remember, such as using visual aids, providing clear explanations, and breaking complex tasks into smaller, more manageable steps (Sweller, 2011).

Bridge program aligns with the cognitive learning theory by emphasizing the importance of active, inquiry-based learning that encourages students to construct knowledge through interactions with

new information and existing cognitive structures. This approach promotes the development of metacognitive abilities, such as self-evaluation and self-monitoring, which are critical for effective learning. Moreover, using appropriate cognitive challenges and effective teaching strategies, such as concept mapping and inductive-deductive reasoning, helps students better organize and understand knowledge, leading to improved learning outcomes. The personalized and differentiated teaching approach also aligns with the cognitive learning theory, as it recognizes the importance of tailoring instruction to match students' learning styles and needs, which can enhance their learning motivation and satisfaction. Finally, emphasizing practical learning skills and metacognitive strategies, such as reading comprehension and note-taking techniques, supports students' development of efficient and effective learning strategies, which can enhance their learning outcomes and success (Novak et al.,2008).

The main content of the bridge program includes subject knowledge, learning skills, cultural exchange, and interdisciplinary learning. According to Liu Jun, Yang Zheng, and Chen (2020), bridge programs are transitional courses designed and implemented based on the needs of students in terms of subject knowledge, language skills, cultural exchange, and learning habits. The aim is to help students adapt to the learning environment and requirements of international high schools and improve their learning efficiency and outcomes. The bridge program involves the main subject areas of international high schools, such as mathematics, natural sciences, social sciences, and humanities (Ma et al., 2019). Targeted subject knowledge training improves students' academic levels and subject literacy. Moreover, the bridge program involves the development of learning skills, such as reading, writing, speaking, listening, note-taking, and time management, to help students better adapt to the learning requirements and academic standards of international high schools (Liu et al., 2020).

The bridge program also involves cross-cultural communication and cultural understanding, including learning about the history, culture, social systems, and values of the country where the international high school is located, to promote cultural exchange and a global perspective among students. The important thing is learning and applying interdisciplinary knowledge, such as the intersection of technology and humanities or the relationship between society and nature, to cultivate students' comprehensive literacy and interdisciplinary thinking abilities. Bridge programs also include extracurricular activities such as cultural experiences, social practice, and technological innovation to enrich students' school life and cultivate their interests and hobbies (Deardorff,2006).

It is worth considering why it is important and necessary for public school students to take bridge programs before entering international high schools. Bridge programs can help students better adapt to the learning environment and culture of international high schools, reducing their adaptation difficulties and stress (Gao et al., 2019). These programs typically include orientation sessions, language classes, and cultural training, which can help students become more familiar with their surroundings and feel more comfortable in their new school. Students can also build relationships with their peers and teachers, which can help them feel more supported and less isolated. This sense of belonging can be particularly important for international students, who may be far from their families and support networks (Wang& Callahan, 2013). They can also improve students' subject knowledge and learning abilities, enabling them to quickly adapt to the learning requirements and curriculum content of international high schools. In the classroom and during activities, the bridge program can cultivate students' cross-cultural communication skills, enhance their cultural literacy and global perspective, and better prepare them to thrive in the diverse cultural environment of international high schools. By enhancing students' subject knowledge and adaptability, the bridge program can indirectly increase their competitiveness, improve their admission rates and academic achievements in international high schools, and lay a solid foundation for their future development (Bowman& Partee,2011).

Moreover, Wang Xiaohua and Huang Cuiying (2018) mentioned that a bridge program refers to a series of courses and services designed to alleviate the immense pressure students face when entering the learning and living environment of international high schools, strengthen the connection between middle school and high school education, and promote the continuous development and comprehensive improvement of students' learning outcomes.

After students transfer from public schools to international high schools, some psychological and learning adaptation aspects are worth our attention. For example, students may face language barriers, making it challenging to understand teachers' lectures or communicate effectively with classmates. In addition, the cultural environment and social norms of international high schools may differ from those familiar to students, causing them to feel lonely, anxious, or experiencing culture shock. Furthermore, the subject knowledge and teaching methods in international high schools may differ from those that students have previously received, and students may need to spend more time and effort adapting to new subject knowledge and teaching methods (Ward& Kennedy,1999).

For public middle school students, adapting to the learning and living environment of international high schools is a long-term process that requires continuous effort and adjustment to adapt gradually to the new environment and requirements. Wu and Zuo (2016) also explored Chinese students' challenges and coping strategies in international high schools, including adaptation issues related to their learning and living environment. The study found that adapting to new cultures and learning environments takes time and effort, and students need to seek help and support actively. In addition, poor adaptation may lead to psychological problems such as stress and anxiety, which can affect academic performance and mental health. Therefore, students must gradually adapt to international high schools' learning and living environments to ensure their future personal development (Wu & Zuo, 2016). Bridge programs can help students develop coping strategies and seek help and support actively, as mentioned in the study by Wu and Zuo (2016). These programs can provide a safe and supportive space for students to discuss their challenges and concerns and receive guidance and support from trained professionals.

Students' inability to adapt may affect their academic performance, mental health, and future personal development. Therefore, the purpose and significance of the bridge program are to help students better adapt to the learning environment and culture of international high schools, improve their academic level and learning ability, and cultivate their cross-cultural communication skills and comprehensive literacy. The content of the bridging course should be personalized and adjusted according to students' needs and actual situations to meet their learning needs and development potential (Pascarella& Terenzini, 2005).

## 2.2    Student's Personal Development

The personal development of students can include various aspects, such as academic achievement, social skills, emotional intelligence, cultural awareness, and career development. In transitioning to an international high school, personal development can involve several things (Deardorff, 2016). Firstly, the students learn to adapt to a new cultural and linguistic environment. Secondly, they develop cross-cultural communication skills. Thirdly, they learn to navigate the challenges of adjusting to a new academic system (Chen & Starosta, 2000).

The Theory of Multiple Intelligences (Gardner, 1983) believes that students' development is not only in academic aspects but also in other aspects, such as interpersonal relationships, emotional intelligence, cultural awareness, etc. In addition, Gardner (1983) emphasized the importance of

emotional intelligence as a critical aspect of personal development, which includes self-awareness, self-regulation, motivation, empathy, and social skills.

Carol Dweck mentioned about growth mindset in the late 1980s and early 1990s. In her works, such as "Mindset: The New Psychology of Success" (2006), she emphasized the importance of students' attitudes and beliefs in their development and growth. She also said that students should have a positive growth mindset to face challenges and failures and believe their abilities can be developed and improved through effort and learning. Dweck's growth mindset theory has been widely applied in education and other fields, and it is becoming an important educational concept.

Students' personal development mainly includes the following aspects:
1) Academic achievement and ability refer to a student's performance and abilities in academic pursuits, including subject knowledge mastery, learning methods, and skills (Zimmerman & Schunk, 2011). As for academic achievement and ability, adapting to the new learning and living environment is essential. The learning and living environment in international high schools may differ from that of public middle schools. Students must adapt to the new environment, including new subject requirements, learning methods, cultural backgrounds, and interpersonal relationships. Students can actively participate in bridging courses, campus activities, and community service to accumulate new experiences and knowledge. When it comes to students need to establish good study habits. The learning intensity and difficulty in international high schools may be higher, and students need to develop good study habits, including regular study and rest time, scientific learning methods and skills, and effective time management and planning. Zhang and Zhou (2018) also proposed that students must develop good study habits, such as regular study and rest time, scientific learning methods and skills, and effective time management and planning. Students can seek help and guidance from teachers and classmates, actively participate in classroom discussions and group learning, and improve their learning effectiveness and grades.
2) Social skills and interpersonal relationships include students' performance and abilities in social situations, such as interacting and communicating with others and establishing interpersonal relationships (Ladd & Troop, 2003). Bridge programs help students develop social skills and interpersonal relationships by providing opportunities to interact with their peers and teachers in a supportive and structured environment. These programs often include team-building activities, cultural events, and mentorship programs, which can help students develop communication skills, build relationships with their peers and teachers, and establish a sense of belonging in their new school community (Lee & Rice,2007).

3) Emotional intelligence and psychological well-being include a student's emotional and psychological well-being, such as self-awareness, emotion management, and stress coping (Brackett& Katulak, 2006).

4) Cultural awareness and cross-cultural communication skills include a student's cultural awareness and cross-cultural communication abilities, such as understanding and respecting different cultures, effective communication, and exchange (Chen,2007).

5) Career planning and development include a student's planning and development for their future career, such as career intentions, professional qualities, and skills (Lent et al.,2002).

Ding (2017) suggested that students can participate in extracurricular activities and competitions to develop diverse interests, hobbies, and talents. International high schools emphasize students' social responsibility and civic awareness. Students can actively participate in campus and community volunteer activities and service projects to understand social issues and needs, improve their social awareness and participation, and also help cultivate leadership and teamwork skills.

While transitioning to an international high school, students need to adapt to new learning and living environments and face new cultural and social norms. Therefore, students' personal development also needs to adjust and adapt accordingly. Bridge programs can help students gradually adapt to international high schools' learning and living environments while promoting personal growth. Various studies and research papers confirm the positive impact of the bridge program on the personal development of public school students transitioning to international high schools (Wathington et al., 2011). For example, a study by Wang, Ma, and Zhang (2019) found that a bridging program improved students' language proficiency, academic performance, and cultural awareness. Another study by Li and Wang (2019) found that a bridging program helped students develop cross-cultural communication skills and adapt to the new academic environment.

Moreover, the bridge program's content and teaching methods emphasize teamwork and practical experience. John Dewey proposed the theory of experiential education in the early 20th century. In his works, such as "School and Society" (1899) and "Experience and Education" (1938), he emphasized that students need to learn and grow through practice and experience and that the development of students' overall abilities should be emphasized during the learning process. Dewey's educational theory profoundly impacted educational reforms and progress in the 20th century.

Wong and Lee (2020) proposed the study found that participation in a bridging program was associated with increased academic motivation among high school students and also found that participation in a bridging program was associated with increased self-efficacy among high school students, suggesting that bridging courses can help students feel more confident in their ability to succeed academically. In addition, participation in a bridging program was associated with improved academic performance among high school students, suggesting that bridging courses can help students develop the necessary skills and knowledge to succeed in their academic pursuits.

Bridge program can help students develop personally in the following ways. Firstly, they can support adapting to new environments, helping students adjust to new learning and living environments, including new subject requirements, learning styles, cultural backgrounds, and interpersonal relationships (Hu& Kuh, 2002). Students can adapt quickly to new environments and reduce academic and social pressures through bridging courses (Wang et al.,2017). Secondly, it can help establish a specific academic foundation, including understanding and mastering subject knowledge and skills. Through bridging courses, students can better adapt to the learning requirements of international high schools and lay the foundation for future learning and career development (Li & Wang, 2019). Thirdly, it can enhance students' confidence and self-identity. Students can better understand international high schools' learning and living environment, improve their confidence and self-identity, and increase their confidence and enthusiasm for future learning and career development (Zhang & Zhang, 2016). Lastly, it can help students develop social skills and relationships. Through interactions and communication with future teachers and classmates before enrollment, students can better understand the cultural background and social rules of international high schools and improve their social skills and interpersonal relationships (Kim & Kim, 2019).

# 3 METHODOLOGY


This section describes step-by-step my research design, the methodological approach, and the data collection and analysis employed in my research.


## 3.1 Methodological Approach


In order to investigate the effects of participating in a summer bridge program on students' personal development, as well as the differences between students who participated and those who did not, this paper will employ mixed- research methods: quantitative and qualitative.


Cresswell (2014) comprehensively overviews mixed research methods and their strengths. In his book, "Research Design: Qualitative, Quantitative, and Mixed Methods Approaches," Cresswell discusses the benefits of using mixed methods; it allows researchers to examine a phenomenon from multiple angles, using both quantitative and qualitative data. This approach can provide a more comprehensive understanding of the phenomenon being studied. Moreover, it can enhance the study's validity by using different methods to address different aspects of the studied phenomenon. This approach can help overcome individual methods' limitations and provide a more accurate representation of the phenomenon. In this study, in line with the research philosophy and methodology, data is collected through comparative analysis of data sampling and focus group interviews.


Quantitative research is a research method that focuses on numerical data and statistical analysis. It involves collecting data through surveys, questionnaires, or experiments and analyzing it using statistical methods to identify patterns, relationships, and trends. This type of research is often used to test hypotheses or to generalize findings to a larger population (Cohen et al.,2018). Qualitative data can provide rich, detailed information that may not be captured by quantitative data alone. Mixed methods research allows researchers to combine the strengths of both qualitative and quantitative data to gain a more nuanced understanding of the phenomenon being studied. Cresswell (2014) mentions the key concepts related to mixed-methods research, including integrating quantitative and qualitative data, using different research designs, and the challenges and considerations involved in conducting mixed-methods research. He also includes examples of

mixed methods studies in the field of education and guides how to design and conduct a mixed methods study in this context. This paper's author embodies Creswell's (2014) views on mixed-method research. Moreover, it mentions that using quantitative and qualitative research methods can deeply explore the impact of bridge projects on students' personal development, consistent with the core concept of mixed methods research mentioned by Creswell (2014). In addition, the authors discuss the challenges and considerations encountered in the study, consistent with the difficulties and considerations of mixed methods research mentioned by Creswell (2014).

Firstly, this study will use a quantitative research method to analyze students' academic performance, attendance, and leadership competence obtained from the students' administration office. Because these data can provide objective and quantifiable information, they can help researchers understand the impact and role of bridge programs on students' personal development more comprehensively and accurately. The author chose to analyze students' leadership competency because leadership is an important personal competency that can positively impact an individual's academic and professional development (Day, 2001).

In an international school, students are expected to have specific leadership competencies to adapt to a multicultural environment, participate in teamwork, and develop interpersonal relationships. Therefore, studying students' leadership competency after the bridge program helps understand the impact of the bridge program on students' leadership development in a multicultural environment. Academic achievement is one of the important indicators to measure students' learning results, and it is also one of the important bases for evaluating students' performance in school. In international high schools, students face different disciplines and teaching modes, and they need specific academic abilities and learning strategies to adapt to teaching requirements and achieve good results. So, studying students' academic performance after the bridge program helps understand the impact of the bridge program on students' academic ability and learning strategy. The author also chose to analyze students' attendance because attendance is one of the important indicators to measure students' attendance at school. In international high schools, students need to abide by the rules and regulations of the school and come to school on time to adapt to the teaching requirements and obtain better learning results. Therefore, studying students' attendance after the bridge project can reflect the impact of the bridge project on students' compliance with school rules and regulations and attendance.

However, based on the limited amount of information that can be obtained from these data, in order to conduct a more detailed study, this research will also use a qualitative research method, namely

a focus group interview, to gather information from the teachers who organized and participated in the summer bridge program.

## 3.2    Data Collection

The data directly correlating with students' personal development mainly includes academic performance, attendance, and leadership competence. So, the first step was to check with the administration office of the workplace to obtain the high school first semester GPA scores of students who participated and did not participate in the summer camp. The Administration Office randomly selected 22 students who participated in ascend camp and 22 who did not participate from students who came to school in the Year 2020-2021 as the data for analysis.

This research also employed a qualitative method to conduct a more detailed study. In April of 2023, to better understand the actual situation of the bridging summer camp, three structured interviews were conducted with the Dean of Students, the camp teacher, and a camp event manager who had worked on preparing and implementing the bridge summer camp. Participants were recruited based on purposive sampling strategy to gain the most valuable insights about the bridge program. The Dean of Students Peter was primarily responsible for camp coordination, non-classroom activities, and student leader training. The camp event manager Sam, also a teacher at the workplace, was mainly responsible for creating the bridge program 's course curriculum and managing and following up on the course during the camp. To better understand the classroom situation, one teacher Judy who taught one of the classes in the bridging summer camp was also interviewed.

The interview was designed with seven questions (see Appendix 1). Interviews were conducted face-to-face in the meeting room in the author's school. Among them, the dean of students is American, so the interview was in English. The other two teachers were interviewed in Chinese and translated it into English later. Moreover, the duration of each interview was nearly 20 mins; the name of all the interviewers are anonymous. The author guided respondents through seven pre-designed questions, led them to answer them, and recorded their comments and opinions. During the interview, the author used audio transcribers to record; the author could transcode the interview directly into the text, then read and listen to the corrected text word by word and translate parts of the Chinese interview into English. The aim was to get knowledge on the specific content

of the bridge summer program, its impact on student's personal development, whether it had achieved the goals that were set out to accomplish, and what areas needed improvement should the camp be held again.

## 3.3    Data Analysis

To analyze the quantitative research data, the author compared the GPA, attendance, and leadership competency differences between students who participated in the bridge summer program and those who did not. They were placed on separate tables that listed each student's GPA score, attendance, and leadership competency; these data can be found in Appendix 3. The average GPA of those who had participated in Ascend Bridge program is 3.38, while that of those who had not participated in Ascend Bridge program is 3.22. For attendance, only one student who participated in the camp had a record of absenteeism, but five students who did not participate in the camp had a record. For those who had relevant student leadership organizations, six of the students who had participated in the camp held relevant leadership positions, compared with eight of the students who had not participated in the camp.

Following the first step of quantitative analysis of students' academic performance, the thematic analysis approach (Braun & Clarke, 2006) was chosen for this study to analyze the focus group interviews. The thematic analysis was inductive and data-driven. The information from the interview data was used to systematize and analyze in terms of themes and codes.

Braun and Clarke (2006) provide a detailed overview of the thematic analysis approach and its benefits in their article "Using thematic analysis in Psychology."  According to Braun and Clarke (2006), thematic analysis is a flexible and adaptable approach to qualitative data analysis. It can be used with different types of qualitative data, such as interview transcripts, focus group transcripts, and open-ended survey responses. It is also a relatively simple and accessible research method that researchers with varying experience and resources can use. The thematic analysis provides a transparent approach to qualitative data analysis, allowing researchers to document their coding and analytic processes clearly. This transparency helps ensure the findings' reproducibility and enables other researchers to verify the results.

Following the six steps proposed by Braun and Clarke (2006) to conduct thematic analysis, including: familiarizing the data, generating preliminary topics, reviewing topics, defining and

naming topics, coding and organizing data, and reviewing and defining topics, the thematic data analysis was carried out the following actions (Table 3). Firstly, I listened to the interview recordings repeatedly to understand their perspectives and experiences and read word by word through the transcribed texts. Secondly, I labeled and coded the data line by line and then grouped similar codes into themes. Finally, the researcher presented the findings by comparing and summarizing the themes through raw data and processing data.

Table 3: Steps and actions of the analysis

| Step 1 | Familiarizing with the Data | The interviews were directly transcribed via audio, and after that I proofread them manually, which means excluding awkward pauses, word repetition, fillers, and irrelevant phrases. This method was chosen in order to exclude irrelevant conversation such as pleasantries and redundant phrases. The transcribed data was arranged in a word spreadsheet, dividing the information according to the different people of the questions list. |
|--------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Step 2 | Create and decide the initial code | From the notes, I proceeded to code the data, and the following codes were obtained: <br>• Students should be autonomous and reflective in learning <br>• Bridge program improves student's communication and English skills <br>• Cultural awareness important in international schools <br>• The peer feedback and collaboration important in project-based learning <br>• Students lack confidence initially <br>• Students learn the importance of planning ahead and time management. <br>• Students know the teaching method of the international system in advance <br>• Benefits of hands-on and experiential learning in project-based classes <br>• Reflection and discussion help students' logical thinking and medical condition. <br>• Increased English immersion |

| | | • Two weeks is the minimum length of the bridge program to have an impact |
| | | • Clearer evaluation system needed, including self-evaluation |
| | | • Specific goals needed, including non-academic aspects |
| Step 3 | Group codes into themes | From the codes, the data was analyzed again, this time looking for themes, and they were grouped according to the interview questions. |

In the last step, the topics were grouped according to the interview questions, which have been analyzed, and the results are in Appendix 4.

## 3.4    Research Ethics

The ethical aspect of this research was strictly monitored in accordance with the Ethical Guideline for Educational Research (BERA, 2018) and following the checklist of ethical issues to consider provided by Patton (2002). The data for research was approved by the principal of the author's school (see Appendix 2). Before the interview, I also communicated with participants through WeChat messages to better discuss the procedure of an offline interview and to remind them that their participation was voluntary and anonymous. After being fully informed, participants finished the interview at a different time in April 2023. Interviews were voice recorded with participants' explicit. All interview recordings and transcripts were stored on the author's laptop with password protection. All identifiable personal and institutional information was pseudonymized in the final report. The coding sheet which contains participants' names and pseudonyms was kept separately from the transcripts and report.

In addition to the aforementioned confidentiality, transparency, voluntary participation, and the no harm principle, I paid particular attention to the ethical aspect of discussing conflict of interest topics as well as my research positionality. The participants were the main staff for the Ascend bridge program (Nowell et al., 2017). Sharing their opinion to help research this bridge program may affect their reputation or evaluation. They might intentionally or unintentionally provide incomplete or

inaccurate responses. To mitigate these ethical concerns, I restated the research's purpose and procedure at the beginning of each interview (Creswell & Poth, 2018). Moreover, the author emphasized potential discomfort or stress that might occur during the interview and reminded participants of their rights to stop or withdraw from the interview at any time (Guest et al., 2012). To reduce the discomfort or stress, the author started the interview by chatting about the participants and how they were doing recently and thanked to them for the time, which were considerably fewer sensitive topics to start with and were helpful in building rapport and trust between the participants and the author (Braun & Clarke, 2019).

# 4  FINDINGS

This chapter mainly includes the main findings and conclusions of the research, divided into two parts: quantitative and qualitative. In the quantitative research part, sampling statistics and comparative analysis were used to analyze the changes in students' leadership competence, academic performance, and attendance after the bridge project. The main findings include that the student's academic performance has improved after participating in the bridge project, and their attendance has significantly improved. However, the leadership competency has not significantly improved, and the students who did not participate in the camp performed better in the leadership competency dimension.

 In the qualitative research part, the researcher used the thematic analysis method to analyze the focus group interview data and discussed the views and experiences of the participating teachers on the bridge project. Key findings include that the bridge programs help first-year students adapt to a multicultural environment and improve their communication and collaboration skills. Teachers highly evaluate English language skills improvement and teamwork during the camp period. The teacher's suggestions for the Bridge program include increasing the course content and time, providing more learning support and resources, and strengthening the education and cultivation of cultural differences. These conclusions provide an important reference for implementing and improving bridge projects.

## 4.1  Administrative Documents

As for the quantitative data, the analysis of the GPA data shows that students who participated in the summer camp had slightly higher GPA scores than those who did not. From the introduction and research conducted earlier, it is evident that bridge courses provide students with academic support, helping them adapt to new subject requirements, learning styles, language training, and cooperative classroom familiarity, thus improving their academic performance. Moreover, during the camp, these students have already met their teachers and classmates and learned how to communicate with teachers, which helps them adapt to new social relationships and cultural backgrounds, reduce their social pressure, and improve their academic performance. Additionally, the bridge program allows students to better understand the new learning and living environment

before the start of school, reducing the cost of adapting to the new environment and enabling them to focus more on learning. The increased confidence and self-identity they gain in the new environment can also promote their academic performance and enhance their learning motivation, thereby improving their academic performance (Refer to Appendix 3 Tables 1 and 2).

Furthermore, a comparison of attendance and leadership competence between students who participated and those who did not reveal that students who participated in the summer camp had significantly less tardiness or absenteeism. The rules and time management skills established during the camp likely contributed to this outcome. S. A. Schram and K. D. Lau (2018) suggest that summer bridge programs can help students develop skills related to rule management and time management; the report recommends that summer bridge programs should establish clear rules and expectations for student behavior, including attendance policies, academic integrity policies, and expectations for classroom conduct. By doing so, students can learn the importance of following rules and develop good behavior habits that can carry over to the regular school year. Moreover, the report emphasizes the importance of teaching students time management skills, such as setting goals, prioritizing tasks, and managing distractions. These skills can help students stay organized and on-task, leading to better academic performance and reduced stress.

However, the comparison of leadership competence between students who participated and those who did not participate in the summer camp with leadership experience was actually higher than those who did participate. It suggests that due to the summer camp is to short so had little impact on students' leadership competence (Refer to Appendix 3 Tables 1 and 2)

## 4.2 Interviews

### 4.2.1 Qualities and abilities needed in the international school

The first interview question was about what qualities and abilities students who transfer from the public to the international system need to succeed. The answers were analyzed, and the themes (refer to Appendix 4) that came up are explained here.
Teachers unanimously emphasized that English language proficiency is the most fundamental ability for students in international schools, as all classes are taught in English. They also

highlighted the importance of self-management, self-discipline, cooperation, good learning skills, and time management.

The bridge program helped students assess their readiness for the English proficiency required in daily school life and introduced them in advance to the PBL projects they would encounter at our school. Additionally, the course helped students prepare mentally for what they will face in the future.

As can be seen in the direct quote below, the qualities students should have include:

"In terms of learning style, students should have strong autonomy, take the initiative to discover or reflect on their learning process and have a good diagnosis and understanding of their learning situation. Initiative to acquire resources for learning and personal growth, good learning, time management, interpersonal, and language skills." (Sam)

Moreover, Peter describes his thought as such:

"The number one skill students need transferring from a public school to an international school is a command of the English language. Of course, student qualities like work ethic, self-motivation, and self-management are generally more important, but public school students often grow frustrated and struggle with learning a second language. I will add that the American educational system is often less exam based and relies more on schoolwork and projects than the UK or most Asian systems. Students need to have enough self-discipline to work without direct teacher supervision and meet deadlines."

Judy also mentioned self-management and the ability to cooperate during the interview.

Since everyone has been engaged in education for many years, they have a similar understanding of the abilities required for public school students to transition to international schools. It was also mentioned that although the bridging course was relatively short, it at least allowed students to gain early exposure to and adapt to the international system and know what they need for the new school year.

### 4.2.2    Course and topic setting for the Ascend bridge program

The second interview question was about as a teacher, how the students are doing in the class and how you feel about the course and the topic setting. The answers were analyzed, and the themes (refer to Appendix 4) that came up are explained here.

The teachers provided feedback that due to the bridge program 's limited time and broad scope, students could only select a small portion of the content relevant to real-life situations. They also mentioned that English and Mathematics classes would be helpful for students' future learning. For example, Peter noted:

"Math and English lessons were fairly basic but helped students be more confident entering the school year. Students attending the camp could communicate more freely with teachers once school started, so this was a practical benefit of attending the camp."

"Public school students generally have better math foundations than international students. In math class, I felt that their prior knowledge in certain areas greatly increased their confidence, and they only needed to focus on learning the relevant math vocabulary to have a strong start to the new semester." (Judy)

For a short-term camp, the discussion goals can be broad enough and could be more focused on topics relevant to future classroom knowledge. Moreover, it can allow for the early enhancement of language proficiency and scientific abilities that will be required in the future.

### 4.2.3    The main content of the bridge program

The third interview question was about what is the main content of the bridge program. The answers were analyzed, and the themes (refer to Appendix 4) that came up are explained here.
This bridge program includes academic courses, extracurricular and sports activities, and initiatives to enhance social skills and adaptability. The course component primarily consists of PBL projects and English and mathematics courses. Through interviews, it was found that the themes selected for the PBL projects needed to be narrower, and students could only select a small portion to carry out. However, while the knowledge covered in English and mathematics was relatively basic, it

provided a solid foundation for the students to adapt to full English language instruction. Concerning extracurricular activities, the teachers provided feedback that although there were many diverse activities, the reflective and summarizing components needed to be emphasized more. Therefore, this component could be improved, as it is precious for international high school students. Additionally, the student leadership members serving as camp counselors did a good job leading activity to enhance adaptability during the camp period. These activities included ice-breaking, making new friends, becoming familiar with the campus, and guiding the new students to assemble orderly. It can help students feel more comfortable and confident in their new environment, enhancing their overall experience and success.

### 4.2.4   Benefits of students attending the bridge program

The fourth interview question was about the benefits of students attending the bridge program. The answers were analyzed, and the themes (refer to Appendix 4) that came up are explained here.

As can be seen from the interview results, project-based classes probably had the most significant effect because they can let students know our school before the future class mode.

In this direct quote, Peter expresses that the project-based classes significantly impacted the students.

"I think the project-based classes probably had the most significant effect. It gave students a taste of what classes can be like at an international school, and it gave them an advantage in working with teachers in English."

Second, the confidence has been boosted for students who have participated in the bridge program compared to those who have not. They have also learned to communicate with their teachers and become more confident. By becoming familiar with the international system's teaching methods in advance, they understand the importance of planning and time management.

As can be seen in the direct quote below, Peter and Judy had serval thoughts about this:

"I think the project-based classes probably had the most significant effect. It gave students a taste of what classes can be like at an international school, and it gave them an advantage in working with teachers in English.

[…] Confidence (as stated above). The public-school students who did not attend the camp took time to become comfortable on campus and learn to work with the international teachers." (Peter)

"The students who took part in the camp adapted to the different teaching mode earlier than those who did not.

[…] Communicate with the teacher. The students who had participated communicated with their teachers more and were more daring.

[…] Learn the importance of planning and time management. In the project process, for example, in the middle of the planning, I find that the time behind is insufficient so everyone stays up late for the next two days. Students also know the teaching method of the international system in advance, and they know that they should know the description and rubric issued by the teacher in advance." (Judy)

As supported by previous research, these findings prove the importance of bridging courses in students' personal development. From practical experience, bridging courses significantly impact students' confidence, communication abilities, time management, early adaptation, and familiarity with the international system.

### 4.2.5    The goal of the bridge program and its positive impacts on students

The fifth interview question was about after the camp period and the camp closing ceremony, do you think we have achieved the goal set by the summer camp from the perspective of the students' harvest? The answers were analyzed, and the themes (refer to Appendix 4) that came up are explained here.

The teachers unanimously agreed that we could not have achieved the set goals. However, the bridge course helps students to gain early exposure to our teaching model, enabling them to adapt to the new learning system and the environment with lower costs after the start of the school year. Camp teachers even feel that the lack of clear communication of the goals of the course at the beginning made it difficult for them to grasp the key points of the classroom.

As can be seen in the direct quote below:

"In fact, we cannot do it now. We do it, and then they adapt to our learning style and get to know more students in advance so that they can adapt to high school with lower costs and less social pressure when the semester starts. This summer camp is too short. It was originally planned for two weeks but was reduced to one week for various operational reasons." (Sam)

"The initial goal was not set clearly, and I thought that the students who participated in the class would have strong academic ability, but actually it was not so according to the feedback from the class. […] As a result, the teacher also has a vague concept of the course objective, which makes it difficult to grasp the focus. Because if the main goal of the class is clearly the exercise of critical thinking, the teacher can give more specific guidance in the class." (Judy)

In summary, having clear goals for the bridging course is essential. If the relevant staff members are informed clearly at the beginning, it may be easier to grasp the focus of the classroom, which could have a specific impact on the quality of the course. However, despite this, students still received some training in the international education teaching model, PBL learning mode, and cooperative learning.

### 4.2.6   Student's performance in the bridge program's close ceremony

The sixth interview question was whether you have any other impression of the close ceremony. What impressed you about the student's performance? The answers were analyzed, and the themes (refer to Appendix 4) that came up are explained here.

The teacher saw students very detailed in preparing work, and also for the research and screening of information for the topic very detailed and sufficient. Moreover, it was impressive that they could do a ten-minute English presentation in front of their parents. They had good improvement in their English language skills. Furthermore, they do an excellent job presenting basic information during the project presentation, but the depth of thought needs to be improved. As can be seen in the direct quote below:

"I would have liked to see the final student presentation be more tangible. The students presented PowerPoint-type presentations, but I wonder if they could have been less "PPT" focused and more focused on accomplishments that could have been shown in some other tangible manner.
[…] It was nice to see these students present in English in front of people. This is important and matches what they are often required to do in their classes at our school." (Peter)

"students very detailed in preparing work, and also for the research and screening of information for the topic very detailed and sufficient. But the depth of thought is a little bit lacking, and at least it does a pretty good job of presenting basic information.

[…] I was so happy that they went from knowing nothing to being able to give a ten-minute speech in English in front of their parents, which was a very great thing." (Sam)

"When they first entered the camp, almost no students had made a speech in English, but on the day they finished the camp, they felt they had made great progress. They expressed themselves more clearly and fluently, and they also helped to express themselves through body language. This is the result of much practice." (Judy)

Based on the themes that emerged from the analysis of the interview responses, it can be concluded that the students showed detailed and sufficient preparation and research skills for their project presentation. However, there is room for improvement in the depth of their thought and the tangible aspects of their final presentation. The interviews highlighted that the students made great progress in their English language skills and could give a ten-minute speech in English in front of their parents, which was a significant achievement. The emphasis on English language skills aligns with the requirements of the school's curriculum and prepares the students for future academic and professional pursuits. The teachers were impressed with the student's progress and expressed satisfaction with their overall performance during the project-based classes.

This analysis concludes that the project-based classes effectively enhanced the students' research and presentation skills, improved their English language proficiency, and provided opportunities for them to develop important soft skills such as clear communication, collaboration, and critical thinking. However, there is still room for improvement in the depth of students' thinking and the tangible aspects of their final presentation. Overall, the project-based classes positively impacted the students, and the teachers were satisfied with the student's performance.

### 4.2.7    Suggestions to bridge program in the future

The seventh interview question was if this bridge program is held again, what good opinions and suggestions do you have? The answers were analyzed, and the themes (refer to Appendix 4) that came up are explained here.

The teachers have mentioned the need to extend the duration of the bridging course to at least two weeks to have some impact and arrange it in the early summer. As can be seen in the direct quote below:

"I also feel a longer camp would be helpful, and having it earlier in the Summer. I feel two weeks is the minimum length of camp to have an impact." (Peter)

"This summer camp is too short. It was originally planned for two weeks, but it was reduced to one week for various operational reasons.
[…] Also, early in the Summer will allow students to reflect on what they still need to improve on before the school year begins and allows for some space between camp and new student orientation (with similar activities). Staff reported that the camp students seemed tired and less cooperative than those who did not attend camp." (Sam)

They also suggest increasing the intensity of English language use and implementing an English-only policy to better help students improve their language skills.

"I would like to see this camp be more immersive in regard to English. I would like a strict "English Only" policy for the camp. Students will learn better if we force them to struggle with language learning. Moreover, as I said above, English acquisition is the biggest single issue for students coming to our school from public schools." (Peter)

In addition, they suggest allowing more students in need to participate, as many public-school students need to adapt to the entrant learning system and environment in advance. They also recommend that the goals of the bridge course be more specific; it also includes the activity part, which should include more reflection and summary sections. And then, there is a need for a more comprehensive evaluation system, especially in terms of self-assessment.

"I think we can cover more students in need, because many students have no way to adapt to the new learning style and pace, and their initiative is weak. We can advance this intervention process to benefit more students."
[…] Should be more specific in setting your goals and focus not only on academic aspects, but also on non-academic ones.

[…] There can continue to be entertainment, but all the events must be followed by discussion and reflection and summing up in order to achieve something. The habit of reflection and summary is able to cultivate students' thinking ability, which is of great benefit to students' long-term development." (Sam)

"Be clear about the goals. Set according to the main area students need to improve.
[…] The evaluation system can be set more clearly, especially students' evaluation of themselves." (Judy)

Based on the themes that emerged from the analysis of the interview responses, it can be concluded that there are several areas for improvement if the bridge program is held again in the future. The teachers suggested extending the camp to at least two weeks to impact the students significantly. They also recommended that the camp be held earlier in the summer to allow students to reflect on what they still need to improve before the school year begins. In addition, they suggested increasing the intensity of English language use and implementing an English-only policy to better help students improve their language skills. The teachers also recommended allowing more students in need to participate and making the goals of the bridge course more specific, including both academic and non-academic aspects. They suggested including more reflection and summary sections in the activity part of the camp to cultivate students' thinking ability and to have a more comprehensive evaluation system, especially in self-assessment.


## 4.3    Summary of Findings

This thesis question was: How does a bridge program affect the public middle school student's personal development during their transfer to an international school?" Based on the findings extracted from our research data, the answer is that bridge course plays a vital role in facilitating the transition of public school students to international schools. The study has also highlighted several key areas for improvement in bridging courses, including the need for better course design and a more precise evaluation system. Additionally, bridge courses need more explicit goals and evaluation systems to assess their effectiveness better.

Furthermore, the study has shown that bridge courses can positively impact students' personal development. For instance, bridge courses can help students to build relationships with their peers and develop a sense of belonging in the new school community. They can also help students develop self-management and confidence, essential qualities for success in an international school environment.

Overall, the bridge program positively impacts public school students transitioning to international schools. Future research can explore how to further improve bridge courses by designing courses that better meet students' needs, setting clear goals and objectives, and extending the bridge program's duration to at least two weeks. These improvements can enhance the effectiveness of bridging courses, help students better adapt to the international education system, and help their personal development.

# 5 DISCUSSION

In this chapter, the author interprets and summarizes the study's results, providing insights into the significance of their findings. To the author's knowledge, this study is the first practitioner research investigating the effectiveness of bridge program dealing with students transiting between national and international private schools. This study responds to the research gap in the research of the bridge program by providing empirical evidence and critical reflection from the perspective of an educational practitioner. The findings provide evidence of the significance of bridge program in students' smooth transition, academic performance, and health. It also mentioned specific ideas for future research in this field.

## 5.1 The Impacts of the ASCEND Bridge Program on Transition from Public National School to Private International School

The Ascend bridge program provides a rich variety of course themes and extracurricular activities. It encourages students to independently select and explore based on their interests and needs, enabling them to develop and expand new knowledge and understanding based on their existing knowledge base. This is consistent with the core idea of constructivist learning theory, which emphasizes personalized and differentiated learning opportunities that allow students to actively participate in the learning process according to their interests and needs, building and mastering knowledge and skills (Grant & Basye, 2014).

Furthermore, the Ascend bridge program emphasizes active, inquiry-based learning, encouraging students to construct knowledge through interactions with new information and existing cognitive structures. This approach promotes the development of metacognitive abilities, such as self-evaluation and self-monitoring, which are critical for effective learning (Hall et al., 2011). The personalized and differentiated teaching approach also aligns with cognitive learning theory, as teachers in the Ascend Bridge Program tailor instruction to match students' learning styles and needs, enhancing their learning motivation and satisfaction. Finally, teachers also emphasize practical learning skills (such as previewing, reading comprehension, and note-taking techniques), supporting students' development of efficient and effective learning strategies, which can enhance their learning outcomes and success (Sweller, 2011).

As supported by previous research, these findings prove the importance of bridge program in students' personal development. From practical experience, bridge program significantly impact students' confidence (Wong & Lee, 2020), communication abilities, time management, early adaptation, and familiarity with the international system (Hu & Kuh, 2002).

In the Ascend bridge program, teachers have observed a significant improvement in students' English language proficiency, with students able to deliver speeches in English for up to ten minutes during the closing ceremony. After the program, teachers found that students who participated in the Ascend Bridge Program were more confident in expressing themselves and more willing to communicate effectively with their teachers. Furthermore, students were able to adapt to the international classroom format to some extent, such as previewing materials provided by teachers in advance and planning and delegating tasks when working in teams.

## 5.2    The Significance and Implications of the Findings

Research and data analysis has found that the bridge program positively impacts and is essential for public school students transitioning to international schools. Firstly, the program positively impacts students' personal development, including improvements in self-confidence, English language proficiency, communication skills, and time management skills. These enhanced abilities have a positive impact on student's future academic careers (Bowman & Partee, 2011). For example, improved communication skills can help students better interact with teachers and classmates and better understand and apply the knowledge they have learned. Improving time management skills can help students better manage their time and cope with the demands of their studies and daily life.

In addition to helping students adapt to the learning environment of international schools, bridging courses can also assist students in better understanding international curricula and familiarizing themselves with the teaching methods and PBL learning approaches of international education. This improves students' adaptability and learning outcomes and enhances education quality and schools' internationalization. It provides students with a more comprehensive learning experience and can also offer international schools more potential student resources. Therefore, bridge program have significantly contributed to the development of international school education (Li & Zhang, 2016).

The results of this study revealed some challenges in the bridge program, such as the length of the program and course design. In order to better help students adapt to the learning environment of international schools, it is necessary to improve further the aspects of the bridge program, for example, extending the length of the program and clarifying teaching objectives to help teachers better grasp the focus of the course and design it according to students' needs. The activity sessions could have entertaining elements but should also include reflection and summary, as these skills and habits are essential for students in the long run. At the same time, bridge courses require more explicit goals and evaluation systems to assess their effectiveness better.

## 5.3    Research Limitations and Possible Future Research

Despite the valuable insights gained from this study, several limitations should be acknowledged. Firstly, this study only focused on one particular bridge program and may not be generalizable to other programs. Secondly, this study primarily interviewed three teachers for the qualitative research design, and only 44 students were selected for the quantitative research design, the sample size may not be large enough to draw conclusive results, which may not capture students' and teachers' full range of experiences and perspectives. Future research could increase the sample size to ensure that the results are more representative of the population. Thirdly, it was conducted at a single international school and may not reflect the experiences of students at other schools with different educational philosophies and teaching models. Therefore, future research should aim to address these limitations by conducting comparative studies of different bridge programs and international schools, utilizing mixed methods research designs to gain a more comprehensive understanding of the experiences and perspectives of students and teachers, and exploring the effectiveness of bridge programs in different contexts and for different student populations. Moreover, this study was conducted by educational practitioners, which may introduce researcher bias. Future research could consider involving external researchers to ensure data collection and analysis objectivity.

Through the above discussion, we can better understand the impact and significance of the bridge program for public school students transitioning to international schools. This discussion can also provide some reference for future research and practice. In the future, there is potential for further

in-depth exploration of the impact of bridge courses on public school students transitioning to international schools and potential improvement strategies.

Due to the diverse cultural backgrounds of students in international schools, bridge programs need to understand cultural differences better to help students adapt to the new learning environment (Deardorff, 2006). Future research can explore how to understand cultural differences better and how to better integrate them into bridging courses. Additionally, research can also investigate the impact of bridge courses on students' social development, including promoting communication and cooperation among students and helping students better adapt to the multicultural environment of international schools. Furthermore, bridge programs can also impact the admission and marketing of international schools. Future research can explore the influence of bridge programs on school admission and marketing and how to leverage bridge programs to attract more potential students, another goal of our school's continued development of bridge courses.

Based on the quantitative research, there are several areas for improvement in the bridge program. Firstly, further research is needed to explore the length of the program and how to design better courses based on student needs. For example, this could include how to help students better understand and adapt to international curricula, teaching methods, and approaches. Teaching methods and strategies are also crucial for students' learning outcomes and adaptability. Future research can explore teaching methods and strategies for bridging courses, including using interactive and gamified teaching methods to increase student engagement and interest and utilizing reflection and summary strategies to improve student learning outcomes and growth. As international schools' educational philosophy and teaching model are diverse and highly internationalized, bridge programs need to reflect this diversity and internationalization better. Future research can explore how to design better and implement bridge courses to reflect international schools' educational philosophy and teaching model (Zhao et al., 2014).

This study also highlights the need for more explicit goals and evaluation systems for bridge courses. Future research can explore how to evaluate better the effectiveness of bridging courses to gain a more accurate understanding of their impact on students. For example, teaching results assessment can evaluate students' learning outcomes, such as tests, assignments, and project works. Students' learning experiences are also an important aspect of evaluating the effectiveness of bridging courses. Research can explore how to evaluate students' learning experiences through

questionnaire surveys, interviews, and other methods to understand better students' attitudes and feedback on bridging courses.

Student self-evaluation is critical, and research can explore how to better guide students in self-evaluation, such as guiding students to set their learning goals at the beginning of the bridging course and conducting self-evaluation at the end to understand students' learning progress and outcomes better. Additionally, the evaluation of bridging course effectiveness should be broader than the short-term and consider long-term effects (Novak et al., 2008). Future research can explore how to track student's learning outcomes and career development to evaluate the long-term effects of bridging courses and better understand their effectiveness and significance.

This study also found that it is necessary to design course content and establish goals that are more specific to students' needs. Future research can explore how to design a better personalized bridge program to help students adapt to the learning environment of international schools and improve their learning outcomes and personal growth. Research can explore how to design teaching content and activities related to student's interests and strengths to stimulate students' learning motivation and interest better(Huang & Chang, 2018). Students' educational backgrounds and cultural differences are important factors when designing a personalized bridge program. Providing teaching resources and technical support is crucial for personalized bridge course design. Future research can explore how to provide better teaching resources and technical support, such as online teaching platforms, virtual laboratories, online learning communities, etc., to promote students' learning experiences and outcomes.

# 6   CONCLUSION

This study has explored the impact and significance of the Ascend Summer Bridge Program on junior students from national public schools transferring to international private high schools in Shenzhen, China. The findings indicate that the bridge program can be effective in helping students adapt to the academic, social, and cultural aspects of the new learning environment. Specifically, the program positively impacted students' academic progress and personal development. The program's focus on project-based learning and the exploration of global challenges allowed students to develop complex skills. However, the study also highlights the need for improvement in the length and curriculum design of the bridge program to meet students' needs better. The program needs to clarify its teaching objectives and better accommodate students' needs to ensure its effectiveness. The study has also shed light on the importance of investing in different roles of faculty and staff to ensure the smooth operation of the summer bridge program.

Furthermore, it has three key themes for the Ascend bridge program: technological development and disruption, food safety and public welfare, and sustainable community development. These themes have allowed students to gain a higher level of cognition and become global citizens, inspiring care for and action toward the ecological environment and advocating for social justice. The mixed research method used in this study has provided a comprehensive understanding of the impact of the bridge program on public school students' transfer to international schools. The quantitative student academic performance data and structured interviews with relevant personnel have allowed for a thorough evaluation of the advantages and disadvantages of the current bridge program and the identification of areas for improvement and enhancement.

Overall, the findings of this study provide valuable insights for schools and educators seeking to implement effective bridge programs to support students' successful transition to international schools. However, further research is needed to explore the impacts of bridge programs in other school contexts and to develop and evaluate the effectiveness of improvement strategies for future programs.

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# APPENDICES

Appendix 1 Interview's Question

Statement to be read during the recording.

"Good morning, my name is Yun Cao, I am currently a student at Oulu University of Applied Sciences in Finland, and this study is part of my thesis. My research is about How bridge program affect student personal development of public middle school student transfer to an international school in Shenzhen of China, so your answers will help me to better do this research.

Before continuing, I would like to emphasize that your participation is voluntary, so you can withdraw your consent at any time during the interview.

Furthermore, the name of the participants will be replaced by pseudonyms, so the data obtained will remain anonymous and confidential.

Do you have any questions about the study or the interview?

(after the subject's reply)

Ok, with your permission, I will start recording this session (await consent)."

1. What qualities and abilities do students who transfer from the public to the international system need to succeed?
2. What is the main content of a bridge program?
3. As a teacher, how are the students doing in the class, and how do you feel about the course and the topic setting?
4. What are the benefits for students after attending the bridge program?
5. After the camp period and the closing ceremony, have we achieved the goal set by the summer bridge program from the perspective of the students' harvest?
6. Do you have any other impression of the close ceremony? What impressed you about the student's performance?
7. If this bridge program is held again, what good opinions and suggestions do you have?

## Appendix 2 Application for use of student progress development data

**Application for use of student progress development data**
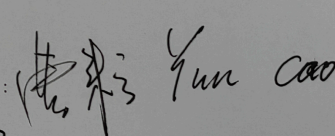
**学生学业进展数据使用申请书**

Dear Felix,

Due to master study research needs, I apply to use the data related to academic performance, attendance and leadership of G10 freshmen in the first semester of 2021-2022 academic year. I guarantee that I will comply with the data management regulations of our school. Without the written permission of our school, I will not provide the applied data to any third party. And commit to acknowledge the results of research papers, monographs and dissertations completed using the data in the appropriate places (" Vanke Meisha Academy "), And indicate the source of the data where it is used (ibid.).

If I breach the above warranties and commitments, I am willing to bear the relevant responsibilities.

尊敬的窦校，
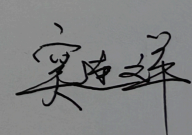
由于研究需要， 本人申请使用 2021-2022 学年 G10 新生第一学期的学业成绩、考勤、领导力相关的数据。 本人保证遵守我校数据管理规定， 所申请的数据未经学校的书面许可， 不向第三者转手提供。 并承诺在使用数据完成的研究论文、 专著和学位论文等研究成果的适当位置致谢("万科梅沙书院")， 并在使用到相关数据之处明示数据来源(同上)。如果违背以上保证和承诺， 本人愿意承担其相关责任。

Thesis name (official thesis name) 论文名称（正式论文名称）：
How bridge program affects student personal development of public middle school student transfer to an international school in Shenzhen of China
衔接课程对公立初中生转国际高中体系个人发展的影响

Applicant (Signature) 申请人（签字）： *Yun Cao.*

Date 日期： *10th, Dec, 2022.*

Principal's opinion (express whether he agrees to bear relevant responsibilities) (Signature)

校长意见（明示是否同意承担相关责任）（签字）：

Date 日期： *2022.12.10*

Appendix 3  Data of students who attend and not attend Ascend bridge program

| Students who attend Ascend Bridge Program before | | | | |
|---|---|---|---|---|
| | Student's name | GPA | | Leadership |
| 1 | Student 1 | 3.73 | | |
| 2 | Student 2 | 3.33 | | |
| 3 | Student 3 | 2.86 | | |
| 4 | Student 4 | 3.46 | | Prefect 6.0 member |
| 5 | Student 5 | 3.05 | | |
| 6 | Student 6 | 3.71 | | |
| 7 | Student 7 | 2.65 | | |
| 8 | Student 8 | 3.51 | | |
| 9 | Student 9 | 3.04 | | |
| 10 | Student 10 | 3.04 | Late and absent | |
| 11 | Student 11 | 4.23 | | Prefect 6.0 member |
| 12 | Student 12 | 3.87 | | |
| 13 | Student 13 | 3.12 | | |
| 14 | Student 14 | 3.49 | | |
| 15 | Student 15 | 3.20 | | Prefect 6.0 member |
| 16 | Student 16 | 3.36 | | |
| 17 | Student 17 | 3.69 | | Student ambassador member |
| 18 | Student 18 | 3.33 | | House leader |
| 19 | Student 19 | 3.22 | | |
| 20 | Student 20 | 3.91 | | |
| 21 | Student 21 | 3.03 | | |
| 22 | Student 22 | 3.60 | | |

(Table 1.  Data of students who attended Ascend summer bridge program before)

| | Students who didn't attend Ascend Bridge Program before | | | |
|---|---|---|---|---|
| | **Student's name** | **GPA** | **Attendance** | **Leadership** |
| 1 | Students 23 | 3.31 | | |
| 2 | Students 24 | 3.43 | | Student union member |
| 3 | Students 25 | 3.48 | Late and absent | Prefect 6.0 member |
| 4 | Students 26 | 3.90 | | Prefect 6.0 member |
| 5 | Students 27 | 2.56 | Late and absent | Prefect 6.0 member |
| 6 | Students 28 | 3.81 | | |
| 7 | Students 29 | 3.73 | | |
| 8 | Students 30 | 2.99 | | |
| 9 | Students 31 | 2.83 | Late and absent | |
| 10 | Students 32 | 2.59 | | |
| 11 | Students 33 | 2.68 | | |
| 12 | Students 34 | 2.68 | | |
| 13 | Students 35 | 3.13 | Late and absent | House leader |
| 14 | Students 36 | 3.96 | | Prefect 5.0 member |
| 15 | Students 37 | 3.65 | | |
| 16 | Students 38 | 3.27 | | |
| 17 | Students 39 | 3.33 | | |
| 18 | Students 40 | 3.21 | | Prefect 6.0 head |
| 19 | Students 41 | 3.18 | | Prefect 6.0 member |
| 20 | Students 42 | 3.03 | | |
| 21 | Students 43 | 3.04 | Late and absent | |
| 22 | Students 44 | 3.10 | | |

(Table 2. Data of students who didn't attend Ascend summer bridge program before)

Appendix 4   Themes of the interview questions

Table 4: Themes of the first interview question

| RQ1: What qualities and abilities do students who transfer from the public to the international system need to succeed? | Themes |
|---|---|
| | The importance of English language proficiency in an international school setting |
| | Importance of social and interpersonal skills for success in an international system |
| | The role of self-discipline and autonomy in student success |
| | The importance of learning skills and growth in student success |

Table 5: Themes of the second interview question

| RQ2: As a teacher, how are the students doing in the class, and how do you feel about the course and the topic setting? | Themes |
|---|---|
| | The effectiveness of project-based learning in helping students learn collaboration, organization, and execution of plans |
| | The importance of basic English and math skills in building student confidence |
| | The challenge of selecting project topics and the impact on student confidence |
| | The limitations of project-based learning in exploring deep knowledge |

Table 6: Themes of the third interview question

| RQ3: What is the main content of a bridge program? | Themes |
|---|---|
| | Academic preparation |
| | Adapt to the new teaching and international study system |
| | Improve student's soft skills |
| | Social and emotional support |
| | Orientation to campus life |
| | Recreation and sports |

Table 7: Themes of the fourth interview question

| RQ4: What are the benefits of students after attending the bridge program? | Themes |
| --- | --- |
| | The impact of project-based learning on student adaptation and success in an international school setting |
| | Students build confidence because the ability improve |
| | Student's communication and English skills were improved |
| | Students improve planning ahead and time management in project-based learning |
| | The benefits of understanding the teaching method of the international system in advance |
| | Adapted to the different teaching mode earlier than those who did not |

Table 8: Themes of the fifth interview question

| RQ5: After the camp period and the closing ceremony, have we achieved the goal set by the summer camp from the perspective of the students' harvest? | Themes |
| --- | --- |
| | The limitations of a short summer bridge program in providing an academic head start for students |
| | The role of a summer bridge program in promoting campus culture and building social connections |
| | The challenge of adapting to a new learning style in an international school setting |
| | The importance of setting clear course objectives and focus for teachers and students. |

Table 9: Themes of the sixth interview question

| RQ6: Do you have any other impression of the close ceremony? What impressed you about the student's performance? | Themes |
| --- | --- |
| | The limitations of focusing too much on PowerPoint presentations in student's project |
| | The need for students to develop depth of thought in addition to research skills |
| | Student's communication and English skills were improved |
| | The importance of practicing and developing English language skills, including presentation skills and body language |

Table 10: Themes of the seventh interview question

| RQ7: | Themes |
|---|---|
| If this bridge program is held again, what good opinions and suggestions do you have? | Immersion in English language for students in an international school setting |
| | The need for a longer summer camp to have a greater impact on student learning and adaptation |
| | Reflection and goal-setting in student development |
| | The value of non-academic activities for reinforcing deeper learning and thinking skills |
| | Quantifying goals and setting a clear evaluation system, including self-evaluation, for measuring the bridge program's value. |