

A triple helix case: Innovative and sustainable international summer school in China

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Abstract

Aim: This article explored the International Summer School model in China. Its goals are to evaluate the curriculum and its features and to analyze how the Triple Helix Theory of Innovation is used. In the summer of 2019, UnivPlus-BSU Shanghai Program and UnivPlus-FSU Beijing Program students were surveyed.

Methodology: One hundred fifteen students from BSU (Shanghai) and FSU (Beijing) were given a survey consisting of 13 questions. The authors gathered information on the summer programmes' effectiveness by surveying both students and teachers. Volunteers from each campus filled out the survey, resulting in a skewed sample.

Findings: UnivPlus is one of the leading organisations providing international summer schools in China for Chinese international students attending universities in the United States and Canada and using their summer breaks in China to study and earn transfer credits. Innovation through collaboration between the academic world and private and public sectors is called the "Triple Helix Model." The recent rise of Chinese initiatives to host international summer schools is a prime example of the Triple Helix innovation model at work. The research presented in this paper shows a positive connection between the cooperation of educational institutions in the United States, China, and Canada, efficient time management, intrinsic motivation, and qualitative faculty support. Our findings reflect the motivations of all involved to boost academic innovation and competition for the betterment of student learning and the development of their knowledge and intercultural competencies.

Implications/Novel Contribution: The program's success has prompted BSU administrators to consider expanding the initiative to include summer sessions in Japan and Jordan. Through the international summer programme, Chinese students can earn credit at their home universities for courses taken while they are in their home country during the summer to visit family. The approval procedure here is simple and beyond reproach.

Keywords: International summer school, triple helix model, Univplus-BSU summer program.

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INTRODUCTION

More and more U.S. colleges and universities are expanding their academic ties with prestigious institutions in other countries. One-semester or year-long exchange programmes, virtual exchange arrangements for students and faculty (especially during the COVID-19 pandemic), and Collaborative Online International Learning are all examples of international educational and cultural connectivity (COIL). Bridgewater State University (BSU) has set itself apart from the many other public universities in the Commonwealth of Massachusetts by leveraging the extensive and applicable experiences introduced and enforced by the Minnock Institute for Global Engagement (MIGE) over the past five years. Study Abroad, International Student and Scholar Services, and Global Programs are the three exciting departments housed within MIGE.

The Global Programs office is committed to providing students and faculty with innovative opportunities to learn about and from other cultures through various academic, cultural, and extracurricular programmes. This includes fostering more opportunities for collaborative research and community service between faculty, librarians, and their international counterparts and increasing the number of faculty exchanges between partner institutions. The primary objective is to foster an atmosphere of learning on campus that promotes intercultural dialogue and understanding. BSU Provost and VP for Academic Affairs Karim Ismaili outlined the difficulty in a video message delivered to the 12th International Conference on Education on June 8-9, 2021 "This era is unprecedented in modern

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times. I share your grief over the tragic losses people worldwide have suffered. Ironically, I find hope in the myriad ways humans have created and nurtured communities in the face of adversity. Few would dispute the importance of technological advancements in facilitating this change (Obaidi & McAlinden, 2021).

Furthermore, Provost Ismaili stated, "Creative problem solving and dogged persistence is on full display at this conference. Again, this exemplifies our dedication as a group to redefine the limits of what we know and develop novel approaches to learning and thinking in an innovative range of contexts. That links and unites everyone at our respective educational institutions (Obaidi & McAlinden, 2021). Notably, the research themes introduced at the BSU conference represent a return to the main ideas proposed at the UNESCO international conference of 2016, which rallied scholars and experts to the critical use of information and communication technology in education for innovation, quality, openness, and inclusion. The findings localise the Triple Helix innovation model and demonstrate the pedagogical value of collaborations between educational institutions, corporations of all sizes, and governmental bodies. The work described here aims to show that more can and should be done to foster international collaboration among students, teachers, and researchers. UnivPlus, an organisation that organises international summer schools in China for Chinese students studying at universities in the United States and Canada during the school year, is also discussed and analysed for its innovative methodology. In 2019, 2020, and 2021, for instance, UnivPlus ran summer programmes in conjunction with the University of International Business and Economics in Beijing, the Shanghai Jiaotong University, and the Boston University and Framingham State University (FSU) in Massachusetts.

METHODOLOGY

BSU and FSU sought to work with the international summer school in China as it represents a successful example of applying the Triple Helix Model of innovation and entrepreneurship. A survey of 13 questions was designed to collect instructional data from students and faculty involved in the summer programs. A total of 115 students from BSU (Shanghai) and FSU (Beijing) participated in the survey volunteer. The survey measures learning outcomes, expectations, and motivations behind students' participation in this intensive summer program. Analyzing the data provided an opportunity to develop several recommendations with specific actions needed to ensure teaching pedagogy improvements and strengthen the summer programs in both places. The survey was distributed in 2019 to equal numbers of Chinese students enrolled in the BSU program in Shanghai and the FSU program in Beijing. Theoretically, the method illustrated how "Triple Helix III is a balanced configuration and the most favorable situation for any country.

Most nations aspire to develop to this level (Kumari & Mallick, 2017). This study explores the relevance and usefulness of offering Chinese students meaningful educational venues in higher education in China and beyond by creating summer educational opportunities.

LITERATURE REVIEW

Studies on the historical context and current major initiatives to internationalise higher education from a vantage point other than study abroad (study tours) or exchange programmes are scarce. This means that the model of innovative and sustainable international summer school in China that Bridgewater State University and perhaps a few other U.S. institutions are developing is, at best, still in its infancy. Studying abroad for ten days to three weeks, or participating in an exchange programme during a semester or academic year, are examples of traditional collaborative venues that the authors of this paper Yu and Al-Obaidi (2018) explored. They demonstrated, for instance, that the Global Studies programme of the MIGE at Bridgewater State University facilitated the link between professors hired by the Dean of the College of Continuing Studies (CCS) to teach 13 courses in Shanghai, China. The number of Chinese students attending summer school is rising steadily, allowing Chinese undergraduates who study in the West to return and keep up their education during the summer break (Ali et al., 2010; Yu & Al-Obaidi, 2018).

U.S. universities are keen on opening up international campuses, but doing so presents significant financial and cultural challenges and is always dependent on the political climate of the host country (Yu & Al-Obaidi, 2018). It is essential to consider whether or not a happy medium could be reached between the academic institutions creating the content, the level of government involvement, the industry (marketplace), and the intended students

who would sign up for the classes. The Triple Helix Model (THM) provides the most useful framework for comprehending these problems. THM "dwells upon the institutional perspective of private and public control at the government, academic, and industry levels, enabling various degrees of selective mutual reconciliation" (Etzkowitz & Zhou, 2017; Jam, Singh, Ng, & Aziz, 2018; Kumari & Mallick, 2017; Leydesdorff & Etzkowitz, 1998; Leydesdorff & Sun, 2009). Innovative methods of cooperation between academia, industry, and the government are presented in Triple Helix I, proving that the government controls the relationship between the two. Nonetheless, "the government has a limited role where both academia and industry perform their functions with limited interaction with the other spheres," as cited by (Kumari & Mallick, 2017), is acknowledged by Triple Helix II. On the other hand, Triple Helix III places a premium on collaboration between the three sectors (government, academia, and industry), with one of them serving as a hybrid organization's leader. The Triple Helix model is one of the patterns that have determined the most important variables affecting the knowledge-based economy and the relationship between these variables to understand the knowledge-based economy. Momeni and his colleagues argued (Momeni, Arab Mazar Yazdi, & Najafi, 2019).

"The Triple Helix model is formed based on extended theories of linear innovation that focus on mutual interaction between academia and industry and Understanding the shifting nature of innovation in today's economy. Production methods, market values, and aspirations all shift as new information becomes available. According to (Momeni et al., 2019), "new techniques, new ways of doing the same things, and new things themselves all invoke harmful and beneficial effects to which society is not accustomed".

With its theoretical foundation and wide-ranging implications for higher education, the Triple Helix model pushed colleges and universities to make long-overdue changes to how they organize their organizations, how their departments innovate, and how they analyze data. As a social and organizational process, innovation makes it easier for people to talk to each other and work together "between people who have a stake in something and people who want to buy goods, services, knowledge, or technology (Farooq, Akhtar, Hijazi, & Khan, 2010; Ponce Jaramillo & Güemes Castorena, 2016). In short, the three Triple Helix models show how important multiple relationships are in the "knowledge capitalization process" (2016). According to Jun (2008), the Triple Helix models simulate the national innovation system for any school or business. In addition to teaching, research, and providing services, academia aims to provide human resources with a focus on acquiring and developing the skills and knowledge needed to work in areas of interest (Acuña, 1993). A case study done by Pan (2016) showed that the advanced Asian economies of Taiwan, Singapore, and South Korea, which are often used as examples of a developmental state, had a very high level of collaboration between the government, businesses, and universities (Pan, 2016). Zhengqi said the following about the partnership between the government, business, and academics:

The THM involves switching from a two-way collaboration between the state and business to a three-way collaboration between the state, business, and the academy. This is done to improve the overall performance of innovation through network synergies. When the Triple Helix model is applied to Asian economies, the state is the main force behind forming the three-way relationship (Pan, 2016). One of the essential parts of the Triple Helix model is that the connections between academia, industry and government are the best way to encourage innovation (Etzkowitz & Leydesdorff, 2000; Leydesdorff & Deakin, 2011; Leydesdorff & Etzkowitz, 1998; Waheed & Jam, 2010; Waheed, 2011). From another point of view, Nakwa and Zawdie (2016) said that the Triple Helix I model calls for improving the relationship between the state, industry, and higher education and encourages deeper interactions between different organizations, the state, industry, and academia.

"The logic of market orientation and process management stand near the core element of the Triple Helix thesis, taking the role of the other," says the source Ma (2019)." Ma (2019) says, "One of the most important things this thesis means is that when universities play the role of industry, they must keep doing what they do best, which is research and teaching ." In a practical sense, BSU and its partners add to what Ma said.

Triple Helix Theory of Innovation and Evolution of University Missions

The term "triple helix theory of innovation" describes the collaborative efforts of the academic community, private sector, and public sector to advance the economy and improve society. As a theoretical framework, it was initially proposed by Etzkowitz and Leydesdorff (1995). In this innovation ecosystem, three players collaborate to shape the world to allow for sustainable existence and long-term development. They collaborate by holding seminars

and training sessions and sharing their skills, knowledge, and access to resources. Regarding institutional spheres of influence and engagement, industry and government are usually considered at the top of the list. According to the Triple Helix model, higher education is the most noteworthy sector.

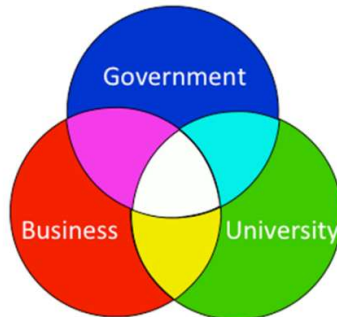


Figure 1. The triple helix model

According to [Etzkowitz and Leydesdorff \(1995\)](#), the purpose of universities has shifted over time. The original goal has shifted to include educating students and fostering relationships between various groups on campus. The organization's second goal is to study and facilitate communication between individuals and research teams. Third, we strive to interact with businesses and organizations locally, regionally, and internationally to promote economic and social development. The fourth objective is to foster an environment that encourages and supports innovative and entrepreneurial approaches to learning, research, and economic growth. The university's mission encourages and supports collaborative education practises and innovative programmes like an international summer school in China, with the Triple Helix Theory of Innovation providing the theoretical foundation.

International Summer School – Example of Triple Helix Model of Innovation

In recent years, foreign and Chinese students have increased demand for international summer schools. When it comes to international summer schools, China hosts two distinct options. The first category includes summer programmes at top Chinese universities that offer Chinese language and culture courses to students worldwide. International Business and Economics University offers International Summer Programs in Beijing, while Shanghai Jiaotong University (SJTU) offers a Global Summer School in Shanghai. During the COVID-19 Pandemic, almost all summer programmes teaching international students Chinese language and culture were cancelled because the Chinese government refused to issue foreign visas. The second type of international summer school is sponsored by Chinese universities or co-sponsored by third-party organizations and American universities to teach courses in multiple academic disciplines to Chinese students studying abroad but not to students from other countries. Many Chinese students studying in the United States and China return home for the summer to attend summer school. Despite the high cost of plane tickets and the hassle of obtaining health and travel approvals from Chinese Embassies worldwide, international students are currently allowed to return home. Those who have returned to China from the epidemic's affected areas have found that attending an international summer school is the most practical and least disruptive option for continuing their education.

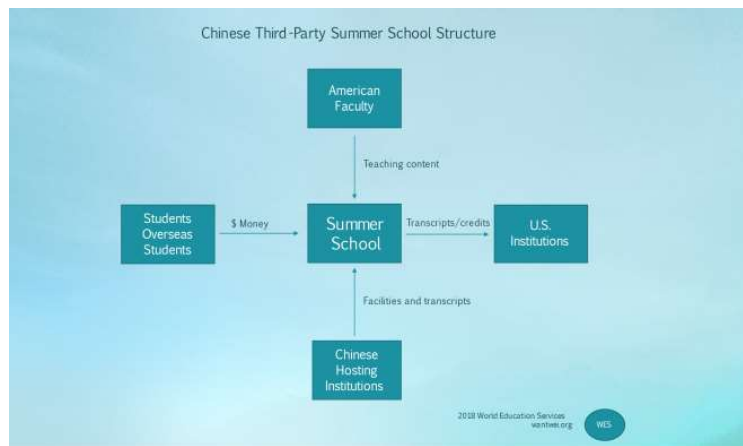


Figure 2. Chinese third-party summer school structure

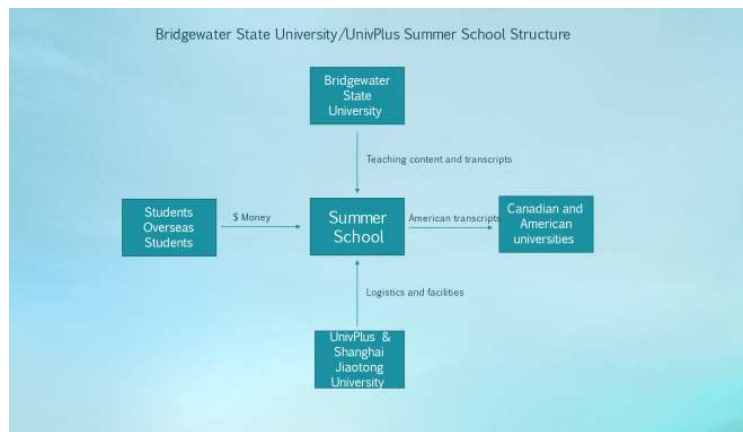


Figure 3. Bridgewater state university/UnivPlus summer school structure

This second type of international summer school is similar to and different from the first. Summer programmes can be organized in one of two ways, as depicted in Charts 1 and 2. Structures of Chinese Independent Summer Schools and the Summer Sessions at Bridgewater State University and UnivPlus The Chinese government controls all aspects of higher education in China, including funding, curriculum, classroom facilities, and other pedagogical necessities, through the so-called Chinese Third-Party Structure. Universities in China need to partner with private companies like UnivPlus to find Chinese students to enrol in their summer sessions and to find local and foreign faculty to teach the courses. This is because Chinese universities are prohibited from soliciting foreign businesses or recruiting international students for commercial gain. They also need more personnel, resources, and expertise to market their programmes internationally and recruit international students. When dealing with non-Chinese entities, Chinese universities play the dual role of university and government. One academic and business restriction on international summer school programmes is that Chinese universities can only issue and provide transcripts in Chinese. Although Chinese universities employ foreign faculty to teach English-taught summer courses, they outsource the payment to third-party agencies like UnivPlus.

Chinese universities' roles in the Bridgewater State University/UnivPlus Summer School Structure are limited to those of government administrators, with the universities receiving payment in exchange for using their classrooms during the summer. Institutions like Bridgewater State University and Framingham State University are the ones who hire and pay international faculty, offer courses and issue transcripts for credit transfer purposes. UnivPlus is a private company that acts as an intermediary between universities in China and the United States to rent classrooms and other facilities. The Triple Helix model fosters collaboration between academic institutions (BSU & FSU), the public sector (SJTU & UIBE), and private industry (UnivPlus) to produce a globally competitive

and environmentally responsible summer programme. All three parties benefit from this arrangement, making it an ideal application of the Triple Helix model.

SURVEY DATA ANALYSIS

In 2019, the authors of this paper taught at the International Summer Schools of both Bridgewater State University in Shanghai (BSU) and Framingham State University in Beijing (FSU), and they surveyed students about their motivations and expectations at both institutions. The surveys were conducted to gain insight into student's goals and expectations and to use that information to inform recommendations for pedagogical and programmatic enhancements. Because of the voluntary nature of the survey's participants, response rates varied widely across campuses. Here are some questions and answers from the BSU Shanghai and FSU Beijing campuses taken at random:

Table 1: Gender of participants

	BSU		FSU	
	Count	Percentage	Count	Percentage
A. Man	50	43.48%	22	40.00%
B. Woman	65	56.52%	30	54.55%
C. Other	0	0.00%	0	0.00%
D. Prefer not to address	0	0.00%	3	5.45%

According to Table 1, there were more women than men enrolled in summer schools in both Shanghai and Beijing. Female students in China are more likely to plan for the summer, enrol in classes, and go on trips than their male counterparts. Friends are a major motivating factor for them to try out new activities and locations, such as enrolling in a new class. Female college students often boast about their extensive travels, education, and fascinating life experiences to attract potential employers. The young people can count on their parents' encouragement and financial backing for any study abroad or travel plans they make. UnivPlus attracts female students by offering discounts and freebies in the form of cosmetics and high-end goods to those who sign up for the programme.

In contrast to their female counterparts, male students in China prefer to relax at home during the summer break. They feel settled at home after studying abroad for a year and would instead relax than study or travel over the summer. Their favourite pastimes are spending time with loved ones and catching up with old friends and classmates. Advertisements aimed at male students use the allure of electronic sports prizes and food coupons to coax them out of their comfort zones and away from their support networks of parents and friends.

Table 2: Student's academic level as classified upon arriving at BSU and FSU summer programs in China

	BSU		FSU	
	Count	Percentage	Count	Percentage
A. First Year	59	51.30%	20	36.36%
B. Second Year	30	26.09%	25	45.45%
C. Third Year	24	20.87%	8	14.55%
D. Fourth Year	2	1.74%	2	3.64%

According to the data in Table 2, 51% of the students at the BSU Shanghai location were first-year students from different universities who did not know each other before the summer programme. However, 49% of the FSU Beijing participants were second-year students from Canadian institutions like the University of Toronto Scarborough who travelled in cohorts to participate in the Beijing programme. After a year of classes together, the two students hit it off and decided they wanted to spend the summers together taking classes. As a whole, but especially among Chinese female students who attended university in Canada and communicated with one another, this is the case. Finding influential students from the summer programme to train as campus and student ambassadors at their home universities was a priority for the UnivPlus recruiting team. Getting the word out about the programme was easiest when current and former students and influential people talked positively about it. Motivating former students, thought leaders, and organizers of groups through tuition discounts is a good idea.

Table 3: Home university and college affiliation prior to joining summer program

	BSU		FSU	
A. College of Arts and Sciences	53	46.09%	34	61.82%
B. College of Engineering and Applied Sciences	12	10.43%	9	16.36%
C. College of Business	44	38.26%	9	16.36%
D. College of Professional Studies	6	5.22%	3	5.45%

The most significant proportion of students at both summer schools came from the College of Arts and Sciences at their respective Canadian and American universities. The College of Business had the second-largest population of students. The College of Engineering and Applied Sciences and Professional Studies were under-represented. Concerning student recruitment, we propose allocating more resources toward attracting students to the College of Arts and Sciences and Business. It is important to offer a wide variety of liberal arts, science, and business classes and classes that correspond to the curriculum at students' home institutions. BSU and FSU offer courses not offered at other universities, especially in Canada. Faculty at both BSU and FSU are obligated to revise their course outlines. Course content details and new chapters can be clarified and added through instructor discussion.

Table 4: Home institutions

	BSU		FSU	
A. Canadian public university	37	32.17%	12	21.82%
B. Canadian private university	2	1.74%	1	1.82%
C. American public university	57	49.57%	33	60.00%
D. American private university	19	16.52%	9	16.36%

Roughly 49% of students at the BSU Shanghai campus attended a public university in the United States, while 16% attended a private university in the United States. 60% of the students at FSU came from public universities, while only 90% attended private universities in the United States. The tuition rates, course offerings, and credit transfer policies of Bridgewater State University and Framingham State University, both located in the United States, are similar. Even if the academic programmes and credit transfer policies of public and private universities in the United States are comparable, private universities' tuition is significantly higher. Students from New York University and Duke University, two of the most prestigious private universities in the United States, pay the same high tuition to study abroad in China during the summer. Credits earned at public universities in China or the United States at significantly reduced tuition rates are likely to be rejected at these private institutions. Transcripts from non-affiliated summer schools are accepted by some smaller private American universities that do not have a physical presence in China but offer degree programmes. All but one of Canada's universities are publicly funded, so students from this sector make up the second-largest student body. Students from Canada's private universities made up only 1% to 2% of the summer school population. More than ever, public universities in the United States and Canada are being actively marketed to international students.

Table 5: Reasons for joining BSU summer program in Shanghai and FSU summer program in Beijing

	BSU		FSU	
A. Convenient location	38	33.04%	14	25.45%
B. Affordable tuition	3	2.61%	1	1.82%
C. Wide range of course offerings	12	10.43%	2	3.64%
D. Transfer Credits recognized by American and Canadian universities and colleges	62	53.91%	38	69.09%

More than 62% of students took advantage of summer courses to earn credits transferable to universities in the United States and Canada. Overseas Chinese students can choose from a wide variety of international summer

school programmes in China. It is the practice of all major Chinese universities to offer summer school courses. The BSU-UnivPlus and the FSU-UnivPlus summer programmes, which offer transcripts from American universities for transfer credit, are less well-organized and as popular than their Chinese counterparts. Students who opted to study abroad during the summer placed a secondary priority on the summer school’s location. We decided to have our BSU and FSU summer programmes in Shanghai and Beijing because those cities were viewed as ideal settings. None of the advertised low tuition rates or extensive course selection seemed to matter to the students. Most international students in North America and Europe come from affluent backgrounds. The summer school was entirely within their financial means because the tuition was lower than at their home universities in Canada and the United States. They could fulfil most of their academic goals by participating in the summer programme. We must continuously work on brand awareness for BSU-UnivPlus in Shanghai and FSU-UnivPlus in Beijing.

Table 6: Leading reasons for enrolling in the summer session courses

	BSU		FSU	
A. To fulfill major/minor requirements	30	26.09%	11	20.00%
B. To fulfill general education/core requirements	68	59.13%	34	61.82%
C. To fulfill a prerequisite	9	7.83%	4	7.27%
D. For personal interest	8	6.96%	6	10.91%

Numerous students took advantage of summer school to finish their core curriculum. Students typically complete these foundational studies at their home institutions in their first and second years. However, many students prefer to save their favourite or most challenging classes for the regular academic year, finishing the rest over the summer. Courses at both the UnivPlus-BSU and UnivPlus-FSU summer schools will be introductory levels and will cover a variety of disciplines and topics. The second largest cohort of students enrolled in summer courses to finish their degrees. The University of Toronto Scarborough’s business students wished to attend intensive summer business programmes to take advanced business courses. Advanced business courses are highly sought after in their home country, and enrollment is often limited. If admitted, students may only fully engage with the material or the class discussions. They gain the knowledge and skills at summer schools to become more engaged learners, improve their English proficiency and gain a global perspective on business issues. More advanced classes should be made available, and new courses should be developed regularly for these learners.

Table 7: Attractive features for joining BSU and FSU summer programs in China

	BSU		FSU	
A. Student-recruiting staff and program information at your home institutions	30	26.09%	21	38.18%
B. Cooperation between UnivPlus, Bridgewater State University, and Framingham State University	32	27.83%	12	21.82%
C. Studying at Shanghai Campus of SJTU and Beijing Campus of UIBE	43	37.39%	16	29.09%
D. Living in the hotel and accommodation nearby	10	8.70%	6	10.91%

Students were attracted to summer programmes at Shanghai Jiaotong University (SJTU) and the University of International Business & Economics (UIBE) in Beijing because of their respective reputations (UIBE). It can be seen above that the SJTU Shanghai Campus has a 37% approval rating, while the UIBE Beijing Campus has a 29% approval rating. As a key participant in Project 985, the Chinese government supports and funds Shanghai Jiaotong University (SJTU), making it a significant and comprehensive university in Shanghai. There is a lot of support for SJTU from parents and students in China. In China, only 39 universities are part of Project 985, while 112 are part of Project 211. Located in the heart of Shanghai, the University of International Business and Economics (UIBE) is a top-tier public research institution and part of the national key university Project 211. It has earned a reputation as China’s finest institution of higher learning in economics, finance, international business, management, law, and languages outside China (Wikipedia). Most Chinese students and their parents look for schools affiliated with Project 985, while those affiliated with Project 211 receive less attention. Our summer

programmes were successful in attracting students from these two prestigious university campuses due to the hard work of our recruiting team and campus ambassadors. Bridgewater State University and Framingham State University’s innovative joint programmes and close cooperation with UnivPlus have gained a reputation among prospective students.

Table 8: Expected support services and training sessions upon arriving in Shanghai and Beijing

	BSU		FSU	
A. Class registration	34	29.57%	16	29.09%
B. Blackboard	39	33.91%	13	23.64%
C. Academic advising	22	19.13%	13	23.64%
D. Tutoring	20	17.39%	13	23.64%

The incoming students wanted help with class registration and Blackboard orientation. Two of the four weeks of the programme are dedicated to getting students registered and settled into classes. Registration staff at BSU and FSU had to work around time zone differences between China and the United States to register students and enter their course and personal information. The registration process was already tedious and time-consuming, and student schedule changes at the summer programme’s start only worsened students. Students could only view course materials or use e-books on the Blackboard system if they had first registered. Educators increasingly use McGraw-Hill Connect and the Cengage online system e-books and smartbooks. Registration and Blackboard/Connect support and training should be available to students before classes start. It is also suggested that students who struggle with schoolwork, language barriers, or internet/technology issues seek academic advising and tutoring services.

Table 9: Level of participation in class and interaction with professors

	BSU		FSU	
A. Often	61	53.04%	31	56.36%
B. Sometimes	45	39.13%	23	41.82%
C. Rarely	7	6.09%	1	1.82%
D. Never	2	1.74%	0	0.00%

Over half of the students at the summer schools regularly interacted with the teachers. Forty percent of students said they occasionally asked questions in class and engaged with teachers. Classes at summer schools were typically much smaller than those at the student’s home public universities, whether in Canada or the United States. In addition to the large classes, the Chinese students also found it easy to participate and communicate with their peers and teachers. They are more comfortable raising their voices in class and receiving more opportunities to use English. Students from those two countries always make up most classrooms in Canada and the United States. Many Chinese students complain that they are isolated from the rest of their class and their teachers. They feel like they better understand their classmates and teachers after four weeks of summer school in China than they would after an entire semester in Canada or the United States. Summer school professors often try to get their students involved by scheduling more extracurricular activities and group projects.

Table 10: Daily study time for courses during summer programs in China

	BSU		FSU	
A. One hour	34	29.57%	12	21.82%
B. Two hours	42	36.52%	22	40.00%
C. Three hours	19	16.52%	11	20.00%
D. Four hours and more	20	17.39%	10	18.18%

All students in summer school attended two or three classes per day for a total of four or six hours of instruction time. Sixty percent spent between one and two hours daily on homework and classwork. They put in

extra time on weekends to finish assignments, read required materials, create rough draughts of papers, and study for tests and quizzes. Approximately 40% of students regularly devoted three or more hours to academic pursuits. These students either put in extra effort to study or were given more time to complete their work. Taking more than three classes at a time was encouraged for students. Managing the time and effort required for three classes is a daunting task in and of itself. Due to class and homework commitments, students have little free time. We intend for the student's time at the international summer school to be productive and enjoyable.

Table 11: Expected goals for summer programs in China

	BSU		FSU	
A. Taking class credits for your transfer to home universities and colleges	98	85.22%	49	89.09%
B. Making friends with classmates and teaching assistants	12	10.43%	3	5.45%
C. Meeting faculties for career/graduate study advice and recommendations	3	2.61%	2	3.64%
D. Being a campus representative of the summer program in your home institution	2	1.74%	1	1.82%

More than eighty-five percent of the students surveyed had the intention of completing the goal of enrolling in summer classes and transferring these credits to home universities and colleges in Canada and the United States. They considered their mission accomplished as long as they could complete the summer school coursework and apply the credits toward their degree programme. Along with this, they made friends among themselves and the TAs. Some of their summer school classmates were students from their home universities who they had not had the chance to get to know before. The summer's new friendships may lead to a return visit the following year for further academic pursuits. Although it was not frequently mentioned, students also wanted to connect with faculty to gain recommendations and advice on advancing their careers or pursuing graduate studies. Many students aim for postsecondary education, which means they'll need strong recommendations from instructors. Authors have extensive experience in both teaching and recommending students for summer programmes. It fills us with joy and pride to hear that our students have been accepted to prestigious graduate programmes in the United States, Canada, the United Kingdom, and Hong Kong. Students aspiring to enter graduate school benefit from the close relationships fostered by the summer school's faculty and students.

Table 12: Expectations and accomplishments

	BSU		FSU	
A. Meeting expectation	79	68.70%	36	65.45%
B. Meeting more than expectation	26	22.61%	15	27.27%
C. Meeting far beyond expectation	2	1.74%	2	3.64%
D. Meeting below expectation	8	6.96%	2	3.64%

Students' input was essential to the evaluation and enhancement of the programme. Approximately 67% of BSU and FSU students felt their expectations were met. In general, 25% of students from both schools met more frequently than anticipated. We averaged a 3% rate of exceeding expectations by a significant margin. That means only 5% were rated below average. In response to this inquiry, satisfaction indicates a high retention rate for the summer school curriculum. Students who enrol as first-year students are expected to repeat the programme in subsequent years. They anticipate the students to return for the third summer of study. It takes two to three years of summer school to prepare a student for success in college.

Table 13: Preferred school location to join BSU and FSU summer programs

	BSU		FSU	
A. Shanghai	70	60.87%	16	29.09%
B. Beijing	13	11.30%	32	58.18%
C. Japan	22	19.13%	4	7.27%
D. Other	10	8.70%	3	5.45%

After answering all the questions, it was clear where the students' future travels would be most interesting. It is worth noting that 60% of the students from the Shanghai campus expressed a desire to return to Shanghai. 58% of the students surveyed at the Beijing campus expressed a desire to remain in Beijing. Shanghai is popular among students from southern China, while those from northern China prefer Beijing. Shanghai and Beijing are two well-known campuses that need more publicity. In addition to SJTU Shanghai and UIBE Beijing, we should also look into and establish exchange partnerships and campuses at other universities. According to our survey, students rank Japan as their third-most desired international destination. Students were interested in more than just spending their summer in Japan; they also had their sights set on the upcoming Summer Olympics in Tokyo. Students at both the Shanghai and Beijing campuses are interested in studying in Japan at a rate of 13%. The 2020 Japan summer school was planned but scrapped when the COVID-19 pandemic broke out. After COVID-19, we propose adding a summer school in Japan as part of the next strategic expansion phase.

Innovative Program Features and Characteristics

UnivPlus International Summer School is a one-of-a-kind, forward-thinking, and sustainable-term innovative initiative. China is home to a large number of foreign summer schools. During the summer, students can attend classes at any one of several well-known and prestigious universities in China. International summer schools are often run jointly by several smaller and less well-known universities and outside organizations. However, the Triple Helix model of innovation needs to align with how they conduct business. Those international summer schools lack the key success factors, including the high reputation of collaborative Chinese universities like SJTU and UBIE, a close relationship with foreign university partners like BSU and FSU, an efficient home recruiting team with overseas staff on-site, and the flat organizational structure of UnivPlus, as evidenced by the survey and analysis of teaching and programme characteristics above. Many international summer school organizations are currently experiencing lockdowns or going out of business because of low student enrollment and a thin profit margin, especially during the COVID-19 Pandemic.

UnivPlus is a third-party agency with a main office close to Beijing's University of International Business and Economics and a branch close to Shanghai's Jiaotong University. UnivPlus has solid partnerships with both schools, so you can rest assured that your classes will be held in climate-controlled classrooms with state-of-the-art technology and teaching resources. The major universities in Beijing and Shanghai, such as SJTU and UIBE, need a better relationship with the third-party agencies of other international summer schools. Every year they have to hunt for unreliable short-term classroom rentals and negotiate with various universities for new contracts. Unfortunately, most Chinese universities only have air conditioning in some of their classrooms, which can be a significant issue for short-term and summer school bookings. In the sweltering heat of a Midwestern summer, even a seasoned foreign educator will need help to maintain their focus on the material at hand. Because of this, air-conditioned classrooms are in short supply and are typically only made available during the summer to accommodate the needs of domestic universities' international exchange programmes. They need to prioritize requests from other summer programmes.

UnivPlus has started working directly with Bridgewater State University and Framingham State University, decreasing its reliance on the U.S. broker or representative. Through their close partnership, UnivPlus and Bridgewater State University can cut down on unnecessary bureaucratic overhead and improve the effectiveness of their interactions with one another. The productivity and profitability of UnivPlus and Bridgewater State University programmes have increased. Other Chinese summer school organizations, unlike UnivPlus, typically employ a U.S. broker or representative to establish relationships with American universities. After only two or three years in business, UnivPlus was able to eliminate the redundant layer of management and cut out the middleman. Efficient

and distinct from the corporate structures of competing summer programme companies is the fact that programme managers make decisions. UnivPlus has placed full-time, permanent recruiters throughout the United States and Canada. In this capacity, they collaborate with student ambassadors and visit campuses across North America. As part of their role in the recruitment process, the home office marketing team regularly makes trips from China to North America to present at conferences and host events. Students have been successfully recruited for online classes for the 2020 and 2021 summer sessions as well as the winter intersession, in large part to the efforts of the recruiting and marketing team, which did not let up even in the face of the COVID-19 Pandemic, organizing virtual seminars and presentations.

FINDINGS

The research presented in this paper demonstrates a positive correlation between international collaboration among universities in the United States, China, and Canada, efficient time management, intrinsic motivation, and qualitative faculty support for students. The results mirrored the motivation of all involved to boost academic innovation and competition for the good of student learning and participation. According to interviews with current BSU Summer Program participants, the program's main selling points are the guaranteed transfer of credits to the student's home institutions and the possibility for Chinese students to visit their families during the summer break while still enrolling in a course or two. It's important to note that the BSU professors who taught these classes in Shanghai and Beijing adapted their pedagogy and delivery to meet the needs of students with varying levels of English proficiency. Teachers' four-week sojourn in Shanghai and Beijing improved their "strategies to reach a higher level of internationalization" and widened their cultural horizons (Li, 2020). One of the most encouraging results of this study is that Chinese students and faculty were given extensive leeway in choosing and teaching the courses they wanted to offer during the summer programme and received full backing from the relevant administrations.

IMPLICATIONS/NOVEL CONTRIBUTIONS

A novel insight/implication is that effective interactions among government, business (industry), and university are essential to the success of international summer schools. With adequate enrollment and no changes in circumstance for each course or session, the Chinese Third-Party Summer School Structure depicted under Chart 1 of this paper functions satisfactorily. Each summer has two sessions that run concurrently. It is challenging to schedule and support a course or session if enrollment is below the minimum number of students. The margin between the costs of running the summer programme and the potential profits for the two programme administrators, the Chinese government/university (university owned by the government) and private business (UnivPlus), needs to be more significant. There may be further limitations due to unforeseen developments, such as the Covid-19 pandemic, programme, and facility closure. Two leading summer programme operators (BSU as University and UnivPlus as a private business) and one classroom/facility leasing operator are shown in Chart 2 of the Bridgewater State University/UnivPlus Summer School Structure (Chinese government). The programme administrators (BSU and UnivPlus) have more say over tuition, class size requirements, and delivery method (online, offline, or hybrid). In this instance, the UnivPlus Summer School Structure at Bridgewater State University is proven to be innovative, profitable, novel, and sustainable. Chinese students are drawn to Bridgewater State University because of its relatively low tuition rates and because it issues transcripts in the American system. This paper uses a case study to demonstrate how the Triple Helix Interactions between government, business, and academia can be implemented. In business and education, the Triple Helix Theory is used as a compass to guide creativity and long-term viability. It promotes international educational collaborations in curriculum and interdisciplinary studies, highlights the significance of intercultural competencies, and provides a theoretical understanding of institutional interactions informed by the Triple Helix Theory, all of which add to the existing body of literature.

CONCLUSION

The teaching model and programme features of UnivPlus-BSU International Summer School are based on the Triple Helix model, in which universities (Bridgewater State University), governments (Shanghai Jiaotong University/University of International Business and Economics), and businesses (UnivPlus) work together to create new ideas. The Triple Helix Theory also fits with two essential parts of the university's mission: creating new

ideas and growing sustainably. One of the university's goals is to work on economic, social, and international development and connect with businesses and organizations in the area, region, and worldwide. Another part is to be innovative and entrepreneurial in how you teach, do research, and help the economy grow. Bridgewater State University has been happy with this international summer school programme that is innovative and entrepreneurial and takes place on a campus outside the United States. It is a good thing for business and a good way for the College of Continuing Studies and the Minnock Institute of Global Engagement to work together. This innovative teaching model and programme make it easier for BSU and UnivPlus to work together and add sustainable programmes. This model can be used to expand a campus to Japan or other cities in China. It can also be used to make online and offline courses. It can be used to get Chinese students from Canada, the U.S., Australia, and other countries to study in China. It can be used to recruit international students for international summer school programmes in the future, as well as Chinese students who want to study abroad. By bringing in Chinese students living abroad and students from other countries, the UnivPlus summer school would become international and global. The BSU-UnivPlus International Summer School has shown that all three parts of the Triple Helix Theory can benefit from it.

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