

Montessori Education in China

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一米兒童之家
CHILDREN'S HOUSE

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Executive Summary

In order to train and improve the quality of their teachers, the Yimi Children's House wants to send them abroad. This plan includes enrolling teachers in official Association Montessori Internationale courses. Additionally, Yimi wants their teachers to gain first hand teaching experience in the United States and learn Western standards of Montessori education. Thus, Yimi seeks to establish a teacher exchange program with Montessori schools.

Yimi wants a series of recommendations to best implement a teacher exchange program. In order to accomplish this, the team identified three main objectives. First, the team will evaluate the areas in which teachers can learn when they teach abroad. To determine if enough of a difference in Montessori practices exists between the US and China, the team will compare interview responses from Montessori teachers and administrators in each country.

Second, the team will proceed by determining which opportunities align with the needs of the three main stakeholder groups: teachers, administrators, and parents. The team will survey parents and conduct focus group studies with teachers and administrators, combining these with the results from the interviews to determine where there is overlap.

Finally, the team will construct recommendations for how the sponsor should implement an exchange program to best take advantage of the opportunities previously identified. However, this project will not reinvent the wheel. Instead, the team will study various established teacher exchange programs, Montessori or otherwise, and attempt to find correlation between successful aspects of each and the specific goal of each program. The team will then adapt various components into recommendations for a program that best suits the program.

Chapter 1: Introduction

In 2015, the Chinese Communist Party (CCP) voted to remove China's long standing one-child policy, effective January 2016. Now that Chinese parents may have more than one child, one of the more immediate concerns involves the need for more educational capacity — first at the kindergarten level and eventually beyond (Xinhua Economic News, 2015).

Additionally, at the turn of the millennium, China launched large-scale education reform, embracing several Western curriculum models including the Montessori education methodology (Li, Wang, & Wong, 2011). These changes to Chinese society and educational practices provide ample opportunity for this project's sponsor, a Montessori school named the Yimi Children's House, to expand its capacity and curriculum.

一米兒童之家, The Yimi (Yīmǐ) Children's House in Hangzhou, opened its doors in 2012 and currently teaches nearly 200 students. One of Yimi's main struggles revolves around the availability of the specially trained teachers that the Montessori method requires. Currently, the school employs over 50 teachers and anticipates hiring nearly 50 more in the next year to accommodate an estimated enrolment of 400 students in 2019, thus growing to meet the needs of its expanding community. The school planned on opening an English-Chinese bilingual Montessori program in the fall of 2018, but these plans fell through due to the lack of adequately trained teachers. As a result, the Yimi Children's House seeks to hire and train new teachers to accommodate the demands of their rapidly expanding school.

Administrators at Yimi aspire to send some of their teachers to the United States as part of a teacher exchange program with American Montessori schools. Ideally such a program would

provide more extensive training opportunities for Yimi teachers and perhaps even attract new teachers to the school. Furthermore, providing education training for teachers outside of their native country offers them with a more versatile and well-rounded background, especially when considering the cultural differences between China and the West. Administrators see the exchange program as a way to extend its practice of sending teachers abroad to receive official training via the Association Montessori Internationale (AMI).

Other than Yimi and their fellow Montessori schools in China sending their teachers abroad for course-based training, few examples of Montessori teacher exchange programs exist. This leaves Yimi with few resources to use in establishing their program as envisioned. While exchange programs specific to Montessori schools may not exist to provide insight, other exchange programs do exist. Between 1996 and 2014 the U.S.-China Teachers Exchange Program sent 117 American teachers to teach in China and 332 Chinese teachers to the United States (National Committee on U.S.-China Relations, 2014). This program, and others like it, provide a starting point from which this project can develop its final recommendations.

To assist Yimi in their goal of establishing an exchange program, this project will first work to determine how stakeholders involved would benefit from this program. By interviewing teachers in both the United States and China as well as conducting focus groups and surveying parents, this project will determine the areas in which teachers would learn the most from teaching in their counterpart's school abroad. From these interviews, the team will make recommendations to the Yimi Children's House in regards to how to implement such an exchange program in such a way that the program meets all stakeholder requirements and goals.

Chapter 2: Background

This chapter discusses the principles that comprise Montessori education, how such methods are adopted in China, and how educators integrate bilingual learning into Montessori education. Additionally, it covers the international and country-specific organizations that oversee and provide support for Montessori schools worldwide. The purpose of researching these topics is to gain a reasonable understanding of Montessori education and its international presence in order to produce well-rounded recommendations for establishing observations/exchange programs between Children’s House and United States schools.

2.1 Montessori Education

Initially developed by Dr. Maria Montessori (Zoll, 2017), the Montessori method of education intends to redefine pedagogy by encouraging a hands-off approach and letting the natural curiosity of children guide their experience. This method extends beyond just the school environment, as parents and caretakers play an important role in applying the method at home (Lau & Yau, 2015). While this project aims to encompass Montessori teacher exchange, this section serves to provide insight into the concept of a Montessori school, and how this philosophy differs from traditional teaching methodology.

2.1.1 History of Montessori

In an effort to revolutionize the educational methodology for teaching young children, Dr. Montessori introduced the Montessori method in the early 20th century. The introduction of this education method came in four waves. The first wave of Montessori implementation began between 1911 and 1917, with Maria Montessori’s first International Training Course and the

establishment of over 100 Montessori schools throughout the United States (Zoll, 2017). In her training course, Dr. Montessori explained her theory of the unique development of the young mind, such that there is a potential to learn and develop without the assistance of traditional teaching tools or methods, additionally stressing the importance of adult guidance during the development process. The stress on adult guidance aims more toward “when education becomes a ‘help to life’ and transcends the narrow limits of teaching and direct transmission of knowledge or ideals from one mind to another,” rather than traditional pre-determined class sessions (Montessori, 1967, pg. 1).

The second wave of implementation took place between 1960 and 1975, the era of alternative education. This wave was a revival of the Montessori method led by Nancy Rambusch. The year 1975 ushered in the third wave of Montessori education. This wave, which lasted until 1989, focused on poverty mitigation and developing Montessori magnet schools. Finally, the fourth wave began in 1990 and continues through the present day. This wave encompasses the expansion of Montessori philosophy into public schools, charters, and other delivery models. With each revival of the Montessori philosophy, implementation challenges arose in the United States as a result of shifts in education policy, failed professional relationships, politics, and funding issues, making it difficult for mainstream education to adopt Montessori education practices (Zoll, 2017).

2.1.2 Montessori Principles and Methodology

The principles of the Montessori method differ greatly from traditional schooling methods across the world. Montessori schools typically bear the name “Children’s House”, as the environment of such a school ideally becomes a life-sized doll house for the children to

explore and “seeks to give all this to the child in reality—making him an actor in a living scene” (Montessori, 1914, pg. 17). A very prominent principle sets a standard for how Children’s House prepares their environment (Montessori, 1967). To accommodate the children, furniture must be light enough for children to move around, and of a suitable height; Figure 2 depicts a functional kitchen from the Yimi Children’s House, designed for the smaller hands of children. Most importantly, children must have a wide open area in which to lay down their rugs on which they do their “work”; they bring any object they are experimenting with to their rug and do “work” on it. This large open area necessitates that Montessori classrooms be larger than traditional classrooms (Montessori, 1914), as shown in Figure 2.



Figure 1: The Yimi Children’s Home’s kitchen
(Source: Yimi Children’s House)



Figure 2: Open space for children to do their “work”
(Source: Yimi Children’s House)

Another core principle provides guidance for teacher intervention in the classroom.

Collective lessons are very rare and of secondary importance to the freedom of the children to guide their own education. A teacher does not merely observe the children, but must additionally teach individualized lessons through experimentation, varying child to child. These lessons have three characteristics — they must be *concise*, so the teachers must carefully weigh the words they choose to speak; they must be *simple*, so it is easy to understand and refer to nothing but the truth; they must be *objective*, in that the personality of the teacher is not present, and the only thing holding the child’s attention is the object to be explained and the potential uses for the object. It is vital to this process that the teacher first observe the interest of the child in the object,

and then attempt to apply a lesson. They must not insist the child understand by repeating the lesson, nor make the child feel they have made a mistake, else the child does not reach understanding and acceptance through a natural process (Montessori, 1912).

Lessons apply to any aspect of the methodology, and the methodology of a Montessori school falls into any of three categories: motor education, sensory education and language. Motor education aims to bring order to the seemingly never-ending movement of small children and guide it to a purpose. Young children do not keep still because it is in their nature to touch everything and move around in order to learn the necessary control over their motor skills and coordination. Exercises such as gymnastics, gardening, management of the household, self-care, everyday movements such as walking or running, and manual work bring order to the developing motions of the children (Montessori, 1914). One such motor education method makes use of several portable boards or frames with various cloths to tie, button and zip together. Once a child has learned how the mechanism works, they will excitedly go about applying the skills to their own clothing, insisting to the point of waving away adults seeking to help (Montessori, 1912).

For sensory education, the process remains mostly the same, though the objects of interest are slightly different. The school carefully chooses these objects for their various textures, sizes and shapes, as well as the sounds they are capable of making. For language, the curriculum breaks the methodology into three steps — *naming*, where the teacher says the word to be taught, such as “large” or “small”; *recognition*, where the teacher asks the child a series of repetitive questions to reinforce the application of the new word; and *pronunciation*, where the teacher prompts the child to say the new word or phrase (Montessori, 1914). In this scheme, the child may draw their own conclusions about the meaning of the word based on their own

observations of the object instead of being told to accept such a meaning whether they understand the basic concept or not.

2.1.3 Montessori at Home

As important as it is to learn how to learn at school, the environment of learning provided at home is, in some manners, just as important. To receive the full benefits of a Montessori education, studies (Lau & Yau, 2015) show that children receive greater benefits from Montessori education when their home mirrors the environment and processes of their school. In the early developmental stage of children, they are exposed to and absorb information primarily from their parents or other primary caregivers, making those adults arguably the most important educators for young children. When these parents or caregivers do not properly understand the developmental needs of their children, it hinders the child's awareness, perceptions and understanding of their own motor controls. To help alleviate this issue, there are parental Montessori programs for caregivers to enroll in and learn about the process and how to apply it to everyday life with their children. Over eight years, according to collected surveys by over 16,000 parents who have taken parental Montessori classes in Hong Kong and mainland China, "almost all of them have indicated that the Montessori parent program has positively changed their attitudes toward their children and affected the way they live. Many said they had made improvements in terms of their sensorial, observational, and expressive abilities after the classes" (Lau & Yau, 2015, pg. 37). This statistic shows the importance of parents providing a Montessori environment outside of school and the positive impact it has on the children's education.

2.2 Education in China

Applying plans such as Montessori parent programs to Chinese parents and students presents unique issues. Even though Montessori schools are growing in popularity, the Chinese schooling method and Montessori method conflict in terms of tradition and reform priority. For instance, the respect for elders and authority conflicts with an equalized form of communication, and “the traditional values of obeying authorities and upholding unity are contrary to the goal of establishing a unique and democratic relationship between a teacher and each individual child” (Zhu & Zhang 2008, pg. 175). Furthermore, educational reform implemented changes around the turn of the century, but these reform policies have not been given priority due to cultural differences. Therefore, the Montessori method provides a highly contrasting approach to education for Chinese students that is otherwise unavailable.

2.2.1 Traditional Education in China

China’s extensive history and unique culture play large roles in defining its educational system today. The history of Chinese education follows many of the same principles outlined by Confucianism:

1. Society consists of a system interrelated parts.
2. To function well, these parts need to be in harmony with one another.
3. Anything out of the ordinary leads to strife and sub-optimal functioning.
4. Should unusual events take place, the system immediately strives to return to its former equilibrium. (Schmidtke & Peng, 2012)

Education guided by these principles aims to create a harmonious social order that demands respect. Schmidtke and Peng go on to say that Confucianism is a pre-industrial concept, and Confucius’ ideas offer a static way of life. The traditional educational system has a very

prominent presence in the Chinese education and the transition away from it has not been smooth.

2.2.2 Trends of Education in China

In the past 100 years, China transformed into a rapidly growing country. This explosion of development brought in new ideas to test old education. China has experienced three major turning points for education: one in the 1920s, the second in the 1950s, and the third in the 1980s (Zhu & Zhang, 2008). The initial reform for the development of individuality began in 1922 when the Chinese Ministry of Education passed a primary school reform decree (Keenan, 1974). In the 1950s the Ministry implemented the higher education system based on U.S.S.R. methods. Finally, in 1989, the Chinese Ministry of Education also enacted Regulations for Kindergarten Education Practice designed to, among other things, emphasize “child-initiated activity” and “the importance of play” (Zhu & Zhang, 2008, pg. 174). Each educational reform era encountered problems with its implementation, partially because it contained elements of foreign methodologies.

The foreign methods clashed dramatically with Chinese culture and traditions. The most apparent of these examples is the reform put in place around the turn of the century. First, the traditional ideologies directly conflict with progressive teaching methods that allow the student to dictate the direction of their education. Traditional Chinese educational methods demand respect and attention from the students while teachers relay information (Li, Wang, & Wong, 2011). In contrast, Western methods tend to require patience from the teacher as they allow their students to explore various subjects (Li, Wang, & Wong, 2011). Furthermore, values such as “conformity, discipline, self-control, hard work, and academic achievement” are important to

and intentionally stressed in Chinese culture (Li, Wang, & Wong, 2011, pg. 20). The pressure on the teachers' performance increases dramatically because parents are deeply invested in the results of their child's education. This resulted in teachers resorting back to their original skill set.

Logistical issues also accompany the implementation. The Chinese Ministry of Education implemented the reform without the proper resources to aid the teachers in their adjustment to the new method — teachers received no guidelines to follow regarding the implementation of the new teaching methods (Li, Wang & Wong, 2011; Zhu & Zhang, 2008). Teaching the Chinese language to children is also difficult and the educational need can be more adequately met “through direct instruction, rote learning, copying exercises, and homework” (Li, Wang & Wong, 2011, pg. 20). These logistical and cultural conflicts resulted in teachers tending to resort back to their original skill set and abandoning most attempts to implement reform in their classroom.

2.2.3 Montessori Education in China

Along with the challenges of implementing western teaching methods in China, Chinese Montessori schools face unique obstacles. While the traditional parenting style fits well with the current educational system in China, it can also stunt the self-driven learning process. When trying to implement the Montessori method in China, educators encountered an issue: despite previous experiences in Canada showing that it typically took a couple of months for new children to adjust to Montessori education, the “Hong Kong children continued with chaotic and hectic behaviors even after a few months had passed” (Lau & Yau, 2015, pg. 34). The article concluded that children were unable to continue their self-driven environment out of class, resulting in their confused behavior.

Despite all of these challenges, Montessori schools have been growing in popularity in China along with the rest of the world. However, Montessori schools do not have as many resources or as much support in China as they do in other countries. A possible solution is to reach out to larger Montessori organizations and even foreign Montessori schools for guidance and collaboration. By making connections with external Montessori schools and organizations, Chinese teachers can adopt the practices for their own classrooms. If Chinese Montessori schools and global Montessori organizations strengthen the connection between one another, the Montessori community in China as a whole will improve.

2.3 Resources for Montessori Schools and Teachers

The Montessori method of education is reaching global popularity, especially considering China's small yet visible trend toward adopting the approach. The general growth in the number of Montessori schools globally prompted overarching organizations such as Association Montessori Internationale (AMI) to provide a network of resources and support on both a national and international scale. This support primarily takes the form of teacher training and certification for individuals seeking to become Montessori teachers, and thus is an essential provision for Montessori schools overall. For example, the Yimi Children's House aspires to grow and establish new a bilingual education program, which requires them to hire new teachers capable of running it. However, Montessori schools often have difficulties finding and hiring qualified teachers. Yimi Children's House experienced that problem this fall semester in their efforts to begin this new bilingual program; they could not successfully initiate the program due to a lack of qualified teachers. While this is a current obstacle for the Yimi Children's House, connections with organizations such as AMI help overcome such issues by continuing to provide Montessori schools with training resources and opportunities. Furthermore, AMI, along with

other affiliate organizations referenced later in this section, establish criteria for Montessori teacher training programs, which in turn promotes consistent teacher qualifications among separate schools. Teachers around the globe, including those at the Yimi Children’s House in Hangzhou, utilize such training programs to establish and expand their expertise in Montessori teaching.

2.3.1 Association Montessori Internationale

Dr. Maria Montessori herself formed the Association Montessori Internationale (AMI) in 1929, with the mission of preserving her philosophy and nuanced form of education over time. Based in Amsterdam, AMI adheres to this mission through numerous non-profit mechanisms which include but are not limited to: AMI teacher training, AMI training of teacher trainers, AMI professional development, consulting services via AMI teacher training centers and AMI affiliates, journals and publications, and Educateurs Sans Frontières (a division of AMI with a broad vision of supporting children’s educational rights worldwide). All of these resources help establish the standard for proper Montessori practices and provide services for Montessori schools worldwide. There are affiliated national associations and training centers around the globe, such as Association Montessori Internationale/USA. AMI’s mission statement clearly defines their purpose:

AMI will use its internationally recognized authoritative voice regarding the unique nature of childhood and natural human development to advocate for the rights of children and adults to have access to nurturing, developmentally appropriate, educational environments. AMI will do this by preserving the legacy of Maria Montessori’s vision whilst continuing to innovate and increase the

impact and reach of Montessori principles and practice. We will continue to uphold AMI quality standards whilst reaching out to collaborate and partner with individuals, communities and organizations who share our vision. (AMI Mission Statement, 2018)

A global operation such as AMI requires smaller country-specific branches to oversee and facilitate recognized Montessori schools. For instance, AMI/USA holds essentially the same mission as its international counterpart, supporting the needs of accredited Montessori schools. The Zhejiang Montessori Institute of Child Development acts as the equivalent AMI affiliated organization in China, and is responsible for bridging the gap between AMI and the Montessori movement in China. As such, the Zhejiang Institute coordinates AMI training programs, resources, and Montessori events. This institute will likely provide the Yimi Children’s House and the team with useful information and resources regarding the viability of an exchange program, particularly since the Zhejiang Institute of Child Development is located in Hangzhou.

2.3.2 Training Effective Montessori Teachers

Given that the Montessori Method differs significantly from traditional education Montessori teachers must receive special training in order to properly interact with pupils. As such, the availability of qualified professionals imposes a major limiting factor in the spread of Montessori education. Furthermore, the importance of a teacher’s character and preparedness is deeply rooted in Montessori ideology, with many professionals asserting that the teacher makes all the difference in classroom effectiveness (Seldin, 2006). Tim Seldin, current President of the Montessori Foundation and Chair of the International Montessori Council, stated that accreditation for Montessori schools “actually refers to the preparation of the teachers, and the

specific Montessori designed school program that they implement” (Seldin, 2006, para. 2). This sentiment is further evident in not only AMI’s responsibility for bestowing teacher diplomas, but one of AMI’s current primary initiatives, *The AMI Bold Goal Project*. Starting in November 2015, The AMI Bold Goal Project seeks to develop “a strategic plan to triple the number of AMI-prepared and supported adults working with the children in the United States by 2021” (Association Montessori Internationale, 2017). Thus far the initiative has begun cultivating models to serve more trainees, mapping professional development needs, and convening leaders of Montessori groups in order to refine their strategy.

While a consensus exists on the underlying principles and philosophy that govern Montessori pedagogy, there is no official declaration that defines a ‘proper’ Montessori teacher or how one becomes accredited. However, organizations such as AMI and the Montessori Accreditation Council for Teacher Education (MACTE, n.d.) take the responsibility of recognizing teacher education programs and giving diplomas to individuals. This helps foster a standard, and sense of credibility in the Montessori community. In 1995, the United States Department of Education recognized MACTE, effectively assuring the public of Montessori educators’ legitimacy. MACTE provides accreditation to education and certification programs based on two concepts; the program exhibits the preparation of “competent, caring, and qualified professional Montessori educators” and displays its “capacity to monitor and improve the program’s quality” (MACTE, n.d., para. 2 & 3). These guidelines hold Montessori training programs accountable for adhering appropriately to Maria Montessori’s ideology, while still leaving flexibility for them to have a unique approach or curriculum.

AMI teacher training programs or MACTE accredited teacher training programs are essential provisions for teachers seeking to work in reputable Montessori schools (Teaching

Montessori, 2017), in order to receive certifications and exposure to actual Montessori classrooms. As stated prior, specific training program content may vary depending on what organization and even which country hosts them. Nevertheless, teachers in both China and the United States have access to many of such programs and may receive proper Montessori certification by utilizing them. In fact, the Yimi Children’s House previously sent three of their teachers abroad to Germany to attend an AMI hosted training program, which lasts for approximately one year. Sending teachers abroad for training is a possible segue into exchange programs among Montessori teachers, considering that the logistics of either situation are presumably similar; one must obtain the proper visa, calculate travel expenses and accommodations, and experience learning in a foreign environment for the sake of gaining new skills. In addition to obtaining certification by enrolling in AMI programs, Montessori teachers from non-native English speaking countries such as China expose themselves to the English language, as many AMI training programs run in English. Training conducted in English and exposure to English-speaking Montessori classrooms is undoubtedly useful for teachers and schools striving to create a bilingual program involving English, such as the Yimi Children’s House.

2.4 Bilingual Education

The Yimi Children’s House ultimately wishes to establish a bilingual Montessori school in an effort to provide a more globally oriented program for their students. One component of this effort involves an eventual bilingual education program within the school, motivated in part by China’s educational demands. However, bilingual education alone presents its own challenges – no fixed definition exists and no method works for all situations. Coupled with the aspect of being implemented within the scope of the Montessori method, even more complications arise.

Ideally, establishing an exchange program to further the education of teachers beyond that of a standard Montessori training course will provide avenues to solve some of these problems.

2.4.1 Typical Types of Bilingual Education

No uniform “right way” to implement bilingual education exists. The term “bilingual education” encompasses several distinct types of education (Bialystok, 2016), each type driven by a different end goal. Generally, bilingual education refers to educational practices in which teachers instruct using a language not native to either the students or the region. Often, stronger methods involve teaching classes such as mathematics or social studies in the target language for a portion of the time. Table 1 on the following page, adapted from Colin Baker (2006), shows selected forms of bilingual education.

Type of Program	Typical Type of Child	Language of the Classroom	Aim in Language Outcome
Weak Forms			
Submersion	Language Minority	Majority Language	Monolingualism
Mainstream with Foreign Language Teaching	Language Majority	Majority Language with Minority Language Lessons	Limited Bilingualism
Strong Forms			
Immersion	Language Majority	Bilingual with Initial Emphasis on Minority Language	Bilingualism
Two-way/dual language	Language Minority and Majority	Minority and Majority	Bilingualism

Table 1: Selected Types of Bilingual Education

In submersion education, students take courses in the local majority language, that is, the student’s second language (L2), receiving no education in their first language (L1), the minority

language (California State Department of Education, 1981). The students, thrown into the “pool” that is L2 classrooms, must quickly learn in order to stay afloat without the aid of special classes or other assistance (Baker, 2006). The weight of learning the new language lies solely on the student. By design, submersion programs compel students to learn all materials in the majority language, replacing the L1 language. However, this strategy only works if children learn the majority language quickly, otherwise they will struggle with the academic material and the language (California State Department of Education, 1981). Baker (2006) identifies submersion education as one of several forms of “weak” bilingual education - it does not achieve, or even seek to achieve, full bilingualism. Instead, submersion education seeks to “assimilate” minority language children into the majority language.

Another form of bilingual educational labelled as weak by Baker (2006), foreign language teaching in mainstream education, “drips” knowledge of a foreign or minority language to students over a long period of time via specific foreign language classes (Baker, 2006). By Bialystok’s (2016) definition of bilingual education, this form would not qualify - none of the foreign language finds its way into traditional courses such as mathematics or science, and as a result, few students ever become fully proficient in the target language. In Canada, after 12 years of being taught foreign language French courses, many students were not proficient in the language (Baker, 2006). While the intent may be to produce bilingual students, the strategy does not consistently succeed.

Immersion educational programs provide stronger bilingual instruction to pupils, ideally fostering bilingual children. Originating in Canada, immersion programs initially teach students entirely in the second, minority, language and as they progress through their schooling, students progressively spend more time in their first language (Baker, 2006). A study in Canada in which

students participated in three variants of French immersion programs showed that students achieved proficiency above that achieved by students enrolled in standard French courses, while suffering no consequences in their English skills (Johnstone, 2001).

Finally, two-way, or dual language bilingual education mixes students proficient in both the minority and majority languages, ideally at a 50-50 split (Baker, 2006). The balance ensures that no language becomes dominantly used amongst the students - each language has equal status in the classroom. Similar to immersion programs, students primarily learn academic material via the minority language when younger, progressing towards a balance with the majority language. Additionally, teachers do not switch between languages during lessons, creating a clear delineation between when they will use each language. Baker contends that this practice encourages students stronger in the language of the day to help those who are struggling, with the roles switching when the language switches. This fosters collaboration and practical usage of both languages.

2.4.2 Bilingual Education in China

University level education drives China's need for early childhood bilingual education for its children. During the 2016-2017 academic school year, over 350,000 Chinese students studied in American universities (Shen, 2017). While 350,000 may be small compared to China's nearly 8 million annual college graduates (Xinhua, 2016), it still plays a significant role in the educational system. Most American schools require international students for whom English is their second (L2) language to prove their English proficiency via the Test of English as a Foreign Language (TOEFL) standardized exam (United States Department of Education, 2012). The desire to study abroad, often caused at least in part in part by wealthy parents (International

Business Times, 2012) coupled with American university language requirements, plays a significant role in driving the need for bilingual education in China.

This need for such education starts very early, in elementary school and younger, as most forms of bilingual education do not have the same effectiveness when implemented with older students. In this scenario, submersion teaching would take the form of sending students abroad and leaving it up to them to learn English, which TOEFL eliminates as an option. Foreign language teaching might work, but as Baker (2006) explains, doesn't perform nearly as well as expected. That leaves standard immersion and two-way immersion. Both take numerous years in most forms, shifting the use of languages as the students get older. They tend to have better results in producing bilingual students, who would in all likelihood, perform better in American universities. And so bilingual education must start early to properly imbue students with bilingual capacity, and that's where Montessori schools in China hope to step in to help.

2.4.3 Montessori Bilingual Education

The forms of bilingual education described above do not always mesh with the concept of Montessori education. In a child driven educational environment, encouraging the development of a second language is more of a challenge. The Montessori method encourages students to learn from their peers, with as little teacher intervention as possible, which complicates usage of the immersion form of bilingual education - students may choose to communicate with their classmates in whichever language they choose (Winnefeld, 2013). With no official curriculum to navigate these problems and few resources in general, Montessori educators in bilingual schools create the material for themselves (Winnefeld, 2013). This means that such teachers must learn from each other and continually revise their curriculum and materials.

In one case, the Intercultural Montessori School in Illinois adopted a system claimed to be similar to two-way or dual language bilingual education (Rosanova, 1998). Interestingly though, Rosanova describes the school as being mostly comprised of children who “are native speakers of English” with only a “small number of native speakers our target languages” (1998, pg. 1). These ratios do not align with Baker’s definition of dual language immersion as having a balanced classroom, with any imbalance biased towards target language speakers. Despite these differences, Rosanova claims that after twelve years operating his school, nearly all of the students who had good support systems did not “remain monolingual”. Based on such successes, Rosanova recommends several techniques to run a bilingual Montessori classroom, including determining “Survival Vocabulary Goals”, implementing audio-based learning, and working to engage parents, who likely do not know the target language, in the learning process. Another suggested method, dubbed “Tell Ms. Kazumi”, involves instructing a child to re-ask a question to the other teacher, in the opposite language.

While not many examples of bilingual Montessori programs exist, the few that do are helpful in determining what differs between such programs and a typical Montessori school. Clearly, the most major changes involve classroom materials. Objects and methods in the classroom must be carefully designed so as to elicit the use of both languages. As no official materials or curriculum exists for bilingual programs, teachers must be well versed in Montessori practices so they are capable of designing their own classrooms with their specific needs in mind. For example, a standard Montessori training course would not likely teach the “Tell Ms. Kazumi” method (Rosanova, 1998) as these courses generally do not cover methods specific to bilingual education. Overall, bilingual Montessori teachers must understand that at some point, they will need to improvise and create their own methods - a typical training course will not

teach them everything they need to know. The potential shortcomings of training courses drive, at least in part, the Yimi Children’s House to seek an exchange program, and it is important for them to understand how to best implement such a program in order to make the most out of the benefits available to them.

2.5 一米兒童之家 (Yimi Children’s House)

Established in 2012, “一米兒童之家”, the Yimi Children’s House (Yimi) in Hangzhou China, pictured in Figure 3, serves nearly 200 students and employs over 50 teachers. 一米学院, the Yimi school organization department, manages the multiple Yimi Children’s House branches, such as the Children’s Houses in Binjiang and Yuhang. In 2019, Yimi intends to expand to over 400 students with nearly 100 teachers to teach them.



Figure 3: Image of the Children’s House
(Source: Yimi Children’s House)

Starting in October 2018 and lasting through August 2019, three of Yimi’s teachers will complete an AMI training course in Germany. Previously, the school sent teachers to take the same course in the United States. The course in Germany will certify these teachers, along with 19 others from elsewhere in China, to teach Montessori at the 3-6-year-old level according to AMI standards.

The contacts for this project at the Yimi Children’s House expressed interest in setting up similar training sessions in the United States as a part of a larger program. Ideally, the program would include two-way teacher exchanges, where teachers would instruct in Montessori schools

in the other country for a period of time. They also expressed interest in the possibility of student exchanges between schools in the United States and China.

2.5.1 Stakeholders Involved

This project most directly involves three categories of stakeholders: teachers, students, and school administrators of the Yimi Children's House and any U.S. schools that could establish exchange with them in the future. A teacher's stake manifests in two manners: first, they typically wish for their students to learn and grow, and second, the teachers want to perform well at their job. Often this requires teachers to learn, grow, and adapt alongside their students. Each student brings their own unique character and requirements and teachers must constantly adapt to properly teach them.

Students, while not directly impacted by this project, will ideally benefit from an enriched educational program. When their teachers' abilities improve, students will learn better, setting them up for a more successful future in an ideal scenario. However, students at the primary level are not the primary decision makers regarding their education – their parents are. Thus, through their children, parents maintain a significant stake in this project, which must take into consideration their various desires and concerns regarding an exchange program. While parents might be excited by the idea of teachers improving via an exchange, they may also be wary of a potential added cost via tuition. All of these aspects must be taken into consideration.

Finally, school administrators must balance numerous interests. They must maintain the stability of their school, organizationally and financially, and they must maintain a high quality of education in their school in order to appease parents. One large aspect of this includes managing a quality staff of faculty. AMI offers accredited Montessori teacher diplomas for three

different student age groups, as well as other training programs for teachers such as seminars and observations that hiring administrators look for in potential staff. Since the Montessori classroom effectiveness is highly dependent on the character of the teachers, such as patience and ability to instill students' intrigue, administrators also seek these traits in potential staff for their schools.

Ultimately, all of these stakeholders share similar motivations: provide children with the best education possible. However, each group may differ slightly in how they want to see an exchange program realized. This project aims to unify the ideas and goals held by each stakeholder group while addressing any concerns that arise. The next section details how the team will approach this goal.

Chapter 3: Methodology

This project aims to assist the Yimi Children’s House Montessori School in establishing a teacher exchange program with similar schools in the United States by determining what teachers from the two countries can learn from each other, evaluating the requirements of stakeholders, and studying existing exchange program models to develop a plan for the Children’s House to use. The team will complete the majority of this project from October 20th, 2018 through December 14th, 2018 in Hangzhou, China in cooperation with the teachers and administrators of Yimi Children’s House Montessori School. In order to assist Yimi, the team identified the following objectives:

1. Compare Montessori teaching practices between the United States and China
2. Determine requirements of stakeholders
3. Recommend best practices for the Yimi Children’s House to follow



Figure 4: Progression of Project Objectives

Figure 4 depicts the flow of information through our objectives, illustrating how the methods for each will produce results that supplement and support the methods of the next objective. The first objective, determining the difference in Montessori implementations in the United States and China, will aid in identifying stakeholder requirements. Similarly, by identifying stakeholder requirements, the second objective will allow the team to craft

recommendations tailored specifically to the invested groups. Overall, the progression of objectives serves to enhance the end result.

3.1 Comparing Montessori Teaching Practices

Ultimately, the primary goal of an exchange program would include teachers learning from their experiences abroad and bring home new ideas and concepts for use in their own classrooms. However, teachers would only learn from teaching abroad if the experience exposes them to practices they have not yet had experiences with. Thus, the team will identify how the implementation of the Montessori method differs between schools in the United States and China. In order to accomplish this, the team will conduct semi-structured interviews of teachers and administrators of Montessori schools in the United States and China using similar questions. Any differences in responses within one group across two nationalities will highlight potential opportunities for exchange program participants to benefit from such a program.

3.1.1 Interviewing Montessori Teachers and Administrators

The team will interview two categories of stakeholders: teachers and administrators. Interviews will take place with individuals in both the United States and in China. There are several goals the team has in mind for these interviews. First, the team seeks to understand how Montessori schools in China and the United States differ. Understanding the differences will allow the team to determine the areas in which exchange teachers stand to gain the most knowledge. These interviews also serve to gauge interest in exchange programs at the general level — exchange programs cannot occur if there are not sufficient numbers willing participants. Finally, the team seeks to gain knowledge from teachers who have experience with training

programs abroad. Through these interviews, the team can learn how to expand such programs into fully-fledged exchange programs.

Table 3 below shows sample questions the team anticipates asking teachers and administrators. The questions are grouped first by the over-arching goal and then by the stakeholder. Full questions and blank interview templates are in Appendices A and B for teachers and administrators respectively.

Goal	Stakeholder	Questions
To learn about Montessori schools in practice	Teachers	<ul style="list-style-type: none"> • Can you tell us about your curriculum? • What do you think the strengths/weaknesses of Montessori Education are?
	Administrators	<ul style="list-style-type: none"> • What challenges do you face in administering a Montessori school? • How do you train teachers?
Understand interest in and motivations for an exchange program	Teachers	<ul style="list-style-type: none"> • What are your thoughts on participating in a teacher exchange program with a foreign school? • If you were given the chance to go abroad for training or teaching, what do you see yourself bringing home to your classroom?
	Administrators	<ul style="list-style-type: none"> • What benefits do you see in training teachers abroad? • How do you think having a foreign teacher will impact your school?
Understand past training abroad programs	Teachers	<ol style="list-style-type: none"> 1. What skills or knowledge did your program provide you that you couldn't have received domestically?

Table 2: Interview Topics

Interviews should last no longer than 30 minutes, as the interviewees are kindly taking time out of their day to assist us. The team will preferably conduct interviews in person for ease of communication, though video conferences are a viable backup option. Unless otherwise required, there will be a maximum of two team members present in the interview to reduce the possibility of overwhelming the interviewee. One team member will take the role of interviewer, asking most of the questions, while the other team member will take notes on the conversation.

While the team plans to conduct interviews in English, a translator will also be present to help with communication if necessary.

Before the interview starts, the interviewer will read the confidentiality statement aloud and request verbal consent from the participant, and verbal consent will be needed to keep record of the interviewee's name and whether or not they are comfortable with the use of a smartphone app to record the interview for later review. The record of the interviewee's name and usage of any device to record the interview will only occur upon hearing verbal consent from the interviewee. At the conclusion of the interview, the team will thank the interviewee and provide the team's contact information in case of any questions.

3.1.2 Evaluating Interview Results

Following the interviews, the team will analyze the participant responses. Initially, the team will categorize the responses into distinguishable classifications. These classifications focus on identifying differences in Montessori practices and sentiments regarding a potential teacher exchange program. The distribution of responses across these classifications from Chinese and American interviewees will help the team identify where the two groups of stakeholders can learn from each other. For instance, the question about a teacher's curriculum will reveal any discrepancies among the teachers and provide insight into what teachers can gain from the program. The team will assess the concerns, aspirations, and intentions of the teachers and administrators and determine whether the sentiment across two groups of teachers are similar, somewhat different, or very different across various categories.

3.2 Determining Stakeholder Requirements

It is essential for the team to identify the exact needs and desires of the Yimi Children's House administrators, teachers, and parents, in order to understand what components of a Sino-American exchange program would best benefit them. As stated previously, the Yimi Children's House staff have particular goals in mind, such as expanding the size of their school in Hangzhou, training their teachers abroad through AMI to learn about more global Montessori standards, or developing a bilingual education program. However, not every aspect of a Sino-American exchange program would necessarily meet such goals, and perhaps parents of Yimi students have differing opinions on the matter than Yimi Staff. Therefore, the project's second objective aims to determine exactly what requirements stakeholders bring to the project, and identify these possible discrepancies between them. The team will achieve this by utilizing short surveys for parents in combination with focus group studies involving the Yimi Children's House administrators and teachers. The following sections detail these methods and illustrate how survey and focus group questions will allow the stakeholders to express their needs and desires.

3.2.1 Surveying Montessori Parents

In an effort to understand the interests of parents at the Yimi Children's House, the team will distribute a survey to gauge how positively parents view the potential benefits of the Yimi Children's House implementing a teacher exchange program. The team will also ask the parents to consider the potential costs of such a program that might be reflected in the cost of tuition and elsewhere. Furthermore, the survey will gather basic demographic information so the team can determine the typical family that enrolls their students in the Yimi Children's House. Appendix D contains a full list of the parent survey questions. The survey additionally includes three free

response questions that ask for the parent to elaborate on their multiple-choice answers, to further provide useful and well-rounded information. For example, question five of the survey asks parents to agree or disagree with the statement “A teacher exchange program will be beneficial to the Yimi Children’s House”, and then it asks parents why they either agree or disagree (see Appendix D for a full list of questions). Such a question aims to illuminate both parent opinions and needs for their children in regards to Yimi’s aspiration to establish an exchange program.

If possible, given technical limitations, the team will distribute the survey using an online program such as Qualtrics, via contacts at the Yimi Children’s House. If that option does not work, the team will hand out paper surveys, likely at the school during drop off or pickup times, to parents and request written responses. In either case, all questions will be provided in both Chinese and English. As follow up questions are unlikely, identifying the participants is not necessary. Thus, the survey will begin with a confidentiality statement: all responses will be confidential. The parents will presumably answer in Chinese, so the team will need to translate their answers prior to analysis. Given the estimated current enrollment of 200 students, the team aims to collect around 20 responses.

3.2.2 Conducting Stakeholder Focus Groups

Conducting focus groups with the Yimi Children’s House teachers and administrators together aims to generate informative discussion and opinions on the matter of exchange programs. The team hopes that conversation amongst the stakeholders is both genuine and useful, which in turn allows the team to accurately determine their needs and desires. Focus groups also bear the ability to present new points of information that perhaps the team would not

have thought of prior. For example, one participant could make a comment that prompts another participant to share his or her thoughts on an entirely new aspect of the topic.

The team will reach out to all teaching and administrative staff at Yimi Children's House and request participation in a focus group study, whilst providing context for the project's purpose. The project sponsor may be able to help assemble participants for the focus group and help decide whether the team should conduct the study in English or Chinese based on the comfort and ability of said teachers. It is important to clarify that stakeholder types shall be mixed in these focus groups; administrators may have differing perspectives than teachers in regards to an exchange program, which will potentially create informative conversation. Thus, the team will gather 4-6 Yimi Children's House staff in a room provided by the school and proceed with introductory information and questions. The study will likely center around 4-5 primary questions designed to stimulate useful conversation, however the team will prepare 8-12 questions should conversation stagnate. Furthermore, the team anticipates possible difficulties in communication of the questions being asked. To accommodate this potential obstacle, the team will take great care in being clear and precise on the pre-prepared questions, as well as preparing elaboration methods for clarity. The ultimate purpose of the focus groups is to ask questions designed to yield as many viewpoints on the matter of foreign training and exchange as possible, supplementing the data collected from the interviews.

Table 3 outlines several questions grouped by goal and purpose, that the team anticipates asking during the focus groups.

Goal	Questions
Engage the teachers: make them comfortable with the topic of discussion	2. What do you enjoy about working at the Yimi Children’s House? 3. Do Montessori principles apply to your life outside of the classroom?
Explore the teacher’s thoughts on foreign exchange/training	4. Why might international exchange between U.S. and Chinese Montessori teachers be beneficial? 5. What are potential draw backs to such an international exchange program 6. How might teachers of different nationalities in the same classroom affect the students? 7. Do you believe there are any notable differences between Western styles of Montessori and Chinese styles? 8. Would you be willing to either train or observe abroad if given the opportunity? Why? 9. How would you feel about a teacher exchange program between a U.S. Montessori school and Yimi?
Tie up loose ends	10. Is there anything else anyone would like to say or add?

Table 3: Focus Group Questions

In order to respect the time of participants, focus group sessions should last approximately 45 to 60 minutes. This provides enough time for all participants to speak and for the moderators to guide the discussion in the desired direction. Ideally, four to six Yimi Children’s House teachers should participate. Of the four team members, two should moderate the session, with one specifically in charge of note taking and, should all participants consent, recording the session. The other team members should be present to observe participant behavior and take additional notes. Finally, if required, a translator should be present to assist the moderator.

Focus groups sessions will begin with a moderator reading the confidentiality statement aloud and receiving verbal consent from each participant. The moderator will also request consent to record the session audio, as well as participant names. Additionally, the moderator

should ask the participants to refrain from speaking about the discussions of the focus group studies outside of the session. Once the moderator completes these steps, the moderator will guide the group through the eight to twelve predetermined questions, receiving guidance as necessary from team members.

3.2.3 Evaluating Results from Parent Surveys and Focus Groups

With the focus group results, the team will create categories to help determine the group's thoughts regarding implementing a teacher exchange program and the requirements they bring to the table for such a program. Among other distinctions, classifications will distinguish between individual responses, overall group sentiment, and the change in these two categories over the course of the discussion.

The team will employ thematic analysis to categorize parent responses according to themes, and then quantify the number of responses that express a particular sentiment. For instance, the question that prompts the parents about how willing the parents are to pay an increased tuition fee will create insightful data on the validity of implementing an exchange program. The analysis of the survey answers - and any common themes that may emerge - will provide the team with information necessary to identify parentally perceived benefits of a teacher exchange program between China and the United States.

After the team organizes the results of all the stakeholder data collection, the team will create a "strengths, weaknesses, opportunities, and threats" (SWOT) analysis for all of the stakeholder groups. This will provide the Yimi Children's House with an in-depth analysis of the benefits and draw backs of implementing an exchange program based on the requirements of different stakeholders. This analysis will include responses from the prior interviews combined

with the focus group results and parent surveys to create a comprehensive picture of where the areas in which teachers can benefit from a teacher exchange program intersect with the goals and requirements set forth by the various stakeholders.

The strengths in the analysis will focus on areas in which stakeholders stand to benefit from implementing the program. Strengths will also include aspects of the sponsor's specific situation that lend itself particularly well to establishing an exchange program. Weaknesses encompass aspects of the sponsor's situation or organization that introduce potential problems when starting up an exchange program. On a social level, such weaknesses could take the form of cultural differences, where perhaps the teacher-student dynamic in Chinese Montessori schools does not easily match that of United States Montessori schools.

External opportunities provide the sponsor with events or situations outside of the sponsor's or any stakeholder's control that may benefit stakeholders if properly taken advantage of or anticipated for in the program plan. Such opportunities may provide room for betterment of the program as a whole or for individual stakeholders on a case-by-case basis. Finally, threats exist to any plan that may cause failure or other unsatisfactory results if not properly anticipated and accounted for. The team will analyze how these problems might manifest in a program established by the sponsor, in order to recommend best practices to the Yimi Children's House.

3.3 Recommending Best Practices

After determining the areas where teachers stand to gain the most from a teacher exchange program and evaluating the requirements of various stakeholders, the team will construct a set of recommendations to deliver to the sponsor regarding how best to run a Montessori teacher exchange program. These recommendations will account for the stakeholder

requirements while attempting to optimize the learning potential of such a program. However, the project will not reinvent the wheel – instead, the team will incorporate aspects from other teacher exchange programs, Montessori or otherwise, into the recommendations. Drawing on such examples, the team can modify them to suit the specific requirements of Montessori education and of the Yimi Children’s House stakeholders.

3.3.1 Researching Case Studies

Along with analyzing responses received through interviews and focus groups, the team will simultaneously investigate different case studies relevant to exchange programs. Analysis of case studies will focus on identifying aspects of prior exchange models that might be applicable or adaptable to the sponsor. Case studies will not necessarily involve instances of just Montessori schools or just Sino-American exchanges. Instead, the studies will include a diverse array of examples from which to draw examples of what worked in the past and what did not.

The team will evaluate case studies by identifying major components of each and comparing and contrasting the usage of these major components between each example program. The team will also identify where each program succeeded and where it did not, comparing once again these results across programs. All of these comparisons will take place in the context of each program’s stated goals. In the final stage of this project, these components will materialize into recommendations based on their usage history, how they stand to integrate into the Montessori method, and how they would account for the identified stakeholder requirements.

3.3.2 Constructing Final Recommendations

The team’s final recommendations to the Yimi Children’s House will draw from the case studies mentioned above, as well as the data and combined results from the first two objectives.

Each recommendation will consider the interests of each stakeholder and the overall success of a potential teacher exchange program. However, the team cannot make each recommendation equally. As such, the team will classify each one as *highly recommended*, *recommended*, or *suggested*, taking into account the following rubric (Table 4):

Criteria	Highly Recommended	Recommended	Suggested
<i>General Description</i>	<i>Should certainly be implemented</i>	<i>Should probably be implemented</i>	<i>Not enough information to recommend, but should be considered further</i>
Contribution to Program Success	Is necessary for program success	Would make program successful	Would probably help the program
Compatible with the Montessori Method	Fully compatible and embodies Montessori ideals	Evidence show full compatibility	No evident incompatibilities
Viability	Evidence shows full viability	Mostly viable, may need adjustments for final implementation	Not enough evidence to determine viability
Stakeholder Requirements	Necessary to meet some stakeholder requirements	Helps meet some stakeholder requirements	Compatible with all stakeholder requirements
Stakeholder Interests	Advances several stakeholder interests	Advances some stakeholder interests	Is not detrimental to majority of interests

Table 4: Rubric for Evaluating Recommendations

Based on the criteria set forth in the rubric (Table 4), the team will classify each recommendation and explain the classification based on available evidence. However, not all recommendations will fit perfectly under a single classification. Therefore, when determining the final classification for a recommendation, the team will consider the relative importance of each criterion. The team will make these determinations on a case-by-case basis, justifying each decision based on available context and on the ultimate action recommended based on a given classification. Overall, the team will deliver these recommendations, with all accompanying

explanations, as the final deliverable for this project. These will take the form of a report detailing each recommendation and how the team arrived at each recommendation. The recommendations should reflect the various requirements, interests, and goals of the various stakeholders that will participate in the eventual teacher exchange program.

3.4 Project Timeline

The nature of this project requires comparison between those in the United States as well as those in China, thus part of the project data must be gathered prior to arrival at the project center. Before departure, there is a timeline to interview teachers in the United States during the A18 term in Worcester, and the team will gather the remaining data while in China according to a separate timeline for Hangzhou.

3.4.1 In Worcester

While the results of this data will not be included in this proposal, Table 5 below indicates the timeline of events conducted in Worcester.

Task \ Date	Ongoing	Oct 2-3	Oct 4-5	Oct 6-7	Oct 8-9
Contact Interviewees					
Interviews 1&2					
Interviews 3&4					

Table 5: Anticipated Montessori Project Gantt Chart (Worcester)

3.4.2 In Hangzhou

Once in China, the main portion of the project will take place during the B18 term. Table 6 on the following page indicates the anticipated project timeline for events to occur at the project center in Hangzhou.

Week/Task	0	1	2	3	4	5	6	7
Establish Relationships								
Prepare Interviews								
Conduct Interviews								
Evaluate Interviews								
Prepare Parent Surveys								
Conduct Parent Surveys								
Evaluate Parent Survey								
Identify Case Studies								
Read Case Studies								
Evaluate Case Studies								
Prepare Focus Group								
Conduct Focus Group								
Evaluate Focus Group								
Develop Recommendations								

Table 6: Anticipated Project Gantt Chart (Hangzhou)

In week zero at the project center in China, most of the week involves orientation and adjustment to living in a new environment. Taking this into consideration, week zero serves as a preparation week to organize plans and necessary tools to conduct interviews, surveys and begin case studies in the later weeks. While in some weeks – especially in week two – there may be a large number of actions happening, they are not necessarily happening at the same time during the week, and the time involved is not even across all actions. Week four has a very light work load, considering the fact that Thanksgiving break starts the Wednesday of that week. That said, the Gantt chart is the anticipated project timeline, and action items such as the evaluation process

may take a bit longer than expected when taking into account possibly requiring translations for the interviews, focus groups and surveys involved.

3.5 Data Management and Translation

The team will work with the “buddies” assigned to us to translate materials as needed. The buddies study at Hangzhou Dianzi University and will be available for around five hours each week. Questions will be translated by the team and the buddies prior to conducting any interviews, although ideally interviews will be conducted in English. If the interviewee gives consent, the team will record the audio for their interview, so that it may be referenced to and, if need be, translated at a later date. Should recordings be taken, they will be stored on a password protected computer and deleted after the completion of the project.

Chapter 4: Conclusion

The Yimi Children's House Montessori School seeks to improve their program by embracing the world, and this project will aid the school in that process. One segment of Yimi's global plans involves creating a teacher exchange program in which their teachers would spend time teaching abroad before returning home, ideally with new ideas and concepts that they can adapt for use in their classrooms. This project will assist the school by determining the best practices for implementing such an exchange program. Once the team identifies these best practices, the team can then construct recommendations for the Yimi Children's House. Firstly, this process involves interviewing Montessori teachers and administrators in the United States and China, to identify areas in which the teachers from each country can benefit and learn from each other. Using these results, the team will analyze whether these available benefits intersect with what various stakeholders - parents, teachers, and administrators - intend for the program to accomplish. Finally, the team will further develop recommendations based on existing models of teacher exchange programs, for how to implement a program that takes full advantage of available opportunities while respecting the needs and wishes of stakeholders.

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Appendix A: Teacher Interview Plan

Interviewee Occupation:
Interviewer name:
Transcriber:
Interviewee name (if permission was granted):
Date & Time of Interview:
Location:
Project Description & Goal: Hello, we are a group of students from WPI working with the Children's House Montessori school in Hangzhou China to develop best practices for their new bilingual program. We would like to interview you to gain a better understanding of Montessori practices in order to provide educated and well-rounded recommendations for the Children's House.
Confidentiality Statement: We are students from Worcester Polytechnic Institute working with the Children's House Montessori school to develop best practices for their new bilingual program. We would like to interview you to better understand Montessori practices. Unless you give us permission otherwise, we will keep your interview confidential. Any information you provide may be published on the internet in our final report, which will be available to the public. This interview is completely voluntary and should take 20-30 minutes to complete. If at any time you do not wish to continue the interview, let us know and we will stop. Do you have any questions?
Q: Do we have permission to use your name in our final report? A:
Q: Do we have permission to record this interview? A:
Q: How long have you been teaching? A:
Q: Have you taught in a non-Montessori school? A:
Q: Can you tell us about the curriculum you use in your classroom? Has it changed over time? A:

Q: What do you think the strengths and weaknesses of Montessori education are?

A:

Q: If you were, given the change to go abroad for training or teaching, would you? Why or why not?

A:

Q: If yes, what are some benefits you see bringing home to your classroom?

A:

Q: (If they have previously gone abroad) What skills or knowledge did your program provide you that you couldn't have received domestically?

A:

Q: What are your thoughts on participating in a teacher exchange program with a foreign school?

A:

Comments:

Final Remarks: Thank you very much for participating in our project! If you have any questions or comments at any point, you can reach us at gr-b18-montessori@wpi.edu.

Appendix B: Administrator Interview Plan

Interviewee Occupation:
Interviewer name:
Transcriber:
Interviewee name (if permission was granted):
Date & Time of Interview:
Location:
Project Description & Goal: Hello, we are a group of students from WPI working with the Children’s House Montessori school in Hangzhou China to develop best practices for their new bilingual program. We would like to interview you to gain a better understanding of Montessori practices in order to recommend the best solutions for the Children’s House.
Confidentiality Statement: We are students from Worcester Polytechnic Institute working with the Children’s House Montessori school to develop best practices for their new bilingual program. We would like to interview you to better understand Montessori practices. Unless you give us permission otherwise, we will keep your interview confidential. Any information you provide may be published on the internet in our final report, which will be available to the public. This interview is completely voluntary and should take 20-30 minutes to complete. If at any time you do not wish to continue the interview, let us know and we will stop. Do you have any questions?
Q: Do we have permission to use your name in our final report? A:
Q: Do we have permission to record this interview? A:
Q: What are the basic training resources or programs you have available to your teaching staff? A:
Q: What challenges do you face in administering a Montessori school? A:
Q: What benefits do you see in training teachers abroad? A:

Q: How do you think a teacher exchange program might benefit your school?

A:

Q: How do you think having a foreign teacher will impact your school?

A:

Comments:

Final Remarks: Thank you very much for participating in our project! If you have any questions or comments at any point, you can reach us at gr-b18-montessori@wpi.edu.

Appendix C: Teacher Focus Group Plan

Participants' Occupation:	
Moderator names:	
Transcriber:	Translator:
Participant names (if permission was granted):	
Date & Time of Session:	
Location:	
<p>Project Description & Goal: Hello, we are a group of students from WPI working with the Children's House Montessori school in Hangzhou China to develop best practices for their new bilingual program. We would like to interview you to gain a better understanding of Montessori practices in order to provide educated and well-rounded recommendations for the Children's House.</p>	
<p>Confidentiality Statement: We are students from Worcester Polytechnic Institute working with the Yimi Children's House Montessori school to develop best practices for a potential exchange program. We would like to conduct this focus group to better understand Montessori practices, and gauge the needs and wants of Yimi Children's House staff.</p> <p>Unless everyone gives us permission otherwise, we will keep the focus group confidential. Should we have your permission, any information you provide may be published on the internet in our final report, which will be available to the public.</p> <p>This focus group session is completely voluntary and should take 45-60 minutes to complete. If at any time you do not wish to continue the interview, let us know and we will stop.</p> <p>Do you have any questions?</p>	
<p>Q: Do we have permission to use your names in our final report?</p> <p>A:</p>	
<p>Q: Do we have permission to record audio of this session?</p> <p>A:</p>	
<p>Q: What do you enjoy about working at the Yimi Children House?</p> <p>A:</p>	

Q: Do Montessori principles apply to your life outside of the classroom?

A:

Q: Why, if at all, might international exchange between U.S. and Chinese Montessori teachers be beneficial?

A:

Q: How might teachers of different nationalities in the same classroom affect the students?

A:

Q: Do you believe there are any notable differences between Western styles of Montessori and Chinese styles?

A:

Q: Would you be willing to either train or observe abroad if given the opportunity? Why or why not?

A:

Q: How would you feel about a teacher exchange program between a U.S. Montessori school and Yimi?

A:

Q: How do you think parents would feel about an opportunity for their children to go on exchange at a United States Montessori school, if possible?

A:

Q: Is there anything else anyone would like to say or add?

A:

Comments:

Final Remarks: Thank you very much for participating in our project! If you have any questions or comments at any point, you can reach us at gr-b18-montessori@wpi.edu.

Appendix D: Parent Survey Plan

Project Description & Goal: Hello, we are a group of students from WPI working with the Children's House Montessori school in Hangzhou China to develop best practices for their new bilingual program. We would like to conduct parent surveys to gain a better understanding of Montessori practices in order to provide educated and well-rounded recommendations for the Children's House.

Confidentiality Statement: We are students from Worcester Polytechnic Institute working with the Yimi Children's House Montessori school to develop best practices for a potential exchange program. We would like to conduct this survey to better understand the motivations behind Montessori education, and gauge the needs and wants of Yimi Children's House student parents. The responses to this survey will be kept completely anonymous.

This survey session is completely voluntary and should take 10-15 minutes to complete.

1. Please check off which age range your child/children are in:
 - 0-3 [drop-down menu indicating how many children ie. 1,2,3]
 - 3-6 [drop-down menu indicating how many children ie. 1,2,3]
2. Multiple Choice: What is your income range?
 - Rather not say
 - Under ¥10,000
 - ¥10,000 - ¥19,999
 - ¥20,000 - ¥29,999
 - ¥30,000 - ¥39,999
 - ¥40,000 - ¥49,999
 - ¥50,000 - ¥74,999
 - ¥75,000 - ¥99,999
 - Over ¥100,000
3. Free Response: Could you share why you enroll your child at a Montessori school as opposed to traditional school?

For the following questions, please use the Scale of 1-5 to describe your attitude towards it as honestly as possible.

4. How interested would you be in your child learning English at the Yimi Children's House?

Not Interested

Very Interested

1

2

3

4

5

Why you feel this way?

5. Pretend the Yimi Children's House is starting an exchange program for teachers in cooperation with a Montessori school in the United States. Yimi teachers would spend a year abroad in the U.S., immersed in English and a potentially different style of Montessori education, and return to teach again at Yimi.

Respond to the statement: A teacher exchange will be beneficial to the Yimi Children's House school.

Strongly Disagree

Strongly Agree

1

2

3

4

5

Why you feel this way?

How willing would you be to pay an increase in tuition in order for the Yimi Children's House to establish a new exchange program? This question is purely hypothetical.

Very Unwilling

Very Willing

1

2

3

4

5

Follow-up: If you would be willing, how much of an increase in tuition seems reasonable?

- 0%-5%
 - 5%-10%
 - 10%-15%
 - 15%-20%
6. What are your plans for your child's education after the Yimi Children's House?
- Public School
 - Chinese Private School
 - Foreign Private School
 - Other: _____
 - Don't know
7. What are your plans for your child's university level education?
- Chinese university
 - Foreign university
 - Other: _____
 - Don't know

Final Remarks: Thank you very much for participating in our project! If you have any questions or comments at any point, you can reach us at gr-b18-montessori@wpi.edu.

Appendix E: Messages with Yimi Children's House

Transcribed from WeChat correspondence with contacts at the Yimi Children's House

- Fabian Gaziano: Thank you for inviting us to the group. May I ask who else is involved in the group?
- 橄榄: @cele @vampire They both help people directly
- 橄榄: @echo and me
- 橄榄: auxiliary
- Sam Goldman: Hi, we were wondering - would you be available on Thursday or Friday this week, or perhaps over the weekend, for a video call? We would like to be able to talk in more detail about the project and what you would like to see us accomplish. We are generally available in the evenings (after 7pm UTC-4) and the mornings (before 9am UTC-4). Thanks!
- Vampire: What time is it now?
- Kayla Swiston: For us it is 9:28PM right now
- Kayla: Sorry, it's AM, not PM!
- Wen-Hua Du: Thanks for adding me. This is Wen-Hua, one of the advisors of the project.
- Du: Hope you guys have already set up a meeting?
- Cele: hi, could we meet on Friday at 8 am (utc-4)? @Sam Goldman
- Sam: That works well for us. What would you like to use to meet?
- Cele: we could use wechat for a video call. Is that ok?
- Finn Casey: Yes, that works
- Vampire: Ok, let's meet at 8:00 on time
- Finn: Absolutely
- Sam: We are curious, would you be able to tell us how many teachers and student you currently have?
- Vampire: We currently have nearly 200 students, more than 50 teachers, and in 2019 we have more than 400 students in our student body, and of course, more teachers. Because we will have three new campuses in hangzhou
- Thanks! And your website says the school was established 6 years ago, is that correct?
- 一米学院: yes
- Kayla: You also mentioned you were opening 3 new campuses? Does this mean 一米学院 is an overarching name and there are several schools under it?
- 一米学院: 一米学院 is an association of our school. Yimi children's home is the name of our school. There are several schools below.
- Kayla: Oh, that's neat! Are they all bilingual Montessori schools or is it just Yimi children's home?
- 一米学院: Most of them are children's homes, but they are all Montessori education.
- Vampire: <images of school>
- Vampire: this is our classroom
- Sam: Would it be okay if we used of these images in our paper?
- Vampire: Of course, no problem, if you still need photos, I will shoot some more for you.
- Vampire: Including some photos of the children's classes
- Sam: Thanks!
- Vampire: <smiley face>

- Sam: Another question if you don't mind: at our meeting on Friday, I believe you said you had teachers go to Germany - how many teachers went and for how long?
- Cele: 22 teachers from different part of China will depart next month and the course will last for 1 year.
- Sam: How many from your school?
- Vampire: Three of them are our teachers. Since some of our teachers have been trained in China, they choose to study in hangzhou
- Sam: Awesome! What kind of course are they going to take?
- Vampire: <image of course description in German>
- Vampire: Association Montessori Internationale 3-6 years old diploma courses training
- Sam: Is that similar to what you want for teachers to do in the United States?
- Vampire: Sending Chinese teachers to the United States for training is only part of our plan. More is to connect with some Montessori schools in the United States, so that Chinese teachers can exchange and study in American schools. Even children can go to a school in the United States for a period of time to achieve the purpose of the Sino-US Montessori educational exchange
- Sam: Thanks, that's really helpful. And thank you for answering our questions! Have a great day!
- Vampire: You are welcome, very happy to help
- Sam: Hi - we wanted to clarify, have you had any teachers go abroad in the past?
- Vampire: Yes, Have been to the United States for training
- Sam: You have?
- Vampire: sorry, our teacher
- Sam: Ah, okay
- Vampire: not me
- Sam: What course did they take?
- Vampire: The same as going to Germany for training, both are Montessori diploma training.
- Sam: Okay, thanks. We're just trying to get an idea for what you and your teachers have done before.
- Vampire: <okay emoji>
- Sam: What is the status of the exchange program with the US that you mentioned yesterday? (Is it just an idea or have you already started planning it out?)
- Cele: now it's an idea, but we are also planning to organize summer family trips in US for Chinese children, now we have contacted some travel agencies to optimize the itinerary.
- Sam: We have a couple more questions:
 - Is it okay for us to use your logo (from your website) in our report?
 - I think you mentioned earlier that you plan on hiring more teachers. Do you have an estimate of how many you want to hire?
 Thanks in advance!
- Vampire: Of course can. According to the actual class, there will be 3 teachers in a class
- Sam: Thanks! I was more curious - you said you're expanding to 400 students - how many teachers will you have to hire to accommodate that expansion?
- Vampire: Plus the current teacher, nearly 100 teachers
- Sam: Thanks!
- Kayla: Hello! To clarify on how the schools relate to each other: what do you mean by different campuses? Is 一米儿童之家 one of the campuses run by - 一米学院? Is 一米学院 its own school, or just the administration running all of these schools? There are 4 campuses listed on your website, right?
- Vampire: Hello, yes, the official website has not been updated yet, and the other two campuses. The yimi children's home is the name of all schools, such as the yimi children's home on the Binjiang campus and the yimi children's home in the Yuhang campus. 一米学院 is an organization department of Yimi Children home and has different management functions.

- Kayla: Oh! Okay, thank you. Sorry, one more question: earlier someone mentioned that all the schools were Montessori but not necessarily Children's Homes. I thought Montessori schools are called Children's homes?
- Kayla: Hello! Would you mind if we kept track of our conversation log with you in our report? We don't have to include names if you aren't comfortable with that.
- Vampire: Of course can
- Kayla: Thank you!
- Kayla: Hello, we just wanted to check in again with all of you now that we think we have a more solid grasp on our objectives for this project. Currently, our objectives are as follows:

1. Evaluate the differences in teaching methods between China's Montessori schools and America's Montessori schools (what will the teachers learn from each other).
2. Analyze the benefits of an exchange program
3. Recommend best practices to implement such an exchange program for teachers.

Please let us know if this is heading in the right direction, or feel free to nudge us toward a different goal if this wasn't the intended direction. Thank you!

- 一米学院: The direction is correct. When we come to China, we can further communicate.