Investigating Students and Teachers Experiences in the Content and Language Integrated Learning Program at Moonshot Academy

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Acknowledgements and Dedications

Executive Summary

Moonshot Academy, MSA, was founded in 2017 in Beijing, China. It is an innovative boarding high school that offers Chinese-English Content and Language Integrated Learning (CLIL) program. All graduates of the Academy plan to attend colleges in English-speaking countries. Therefore, the student's English proficiency level is a critical indicator of the program's success. One of the school's core missions is to "cultivate fulfilled individuals". Therefore, the school puts a strong emphasis on cultivating learner agency by promoting "self-awareness and self-initiation". The MSA coaching system, which focuses on student's social-emotional well-being and personalized learning experience, is in place to support this mission. Given the importance of the students' English level to the school's enrollment and growth, the school sets very high expectations for its CLIL program. The first expectation is that the instructional time should be split evenly between the Chinese and English languages; the second is that students are more highly motivated and engaged by the CLIL pedagogical approaches when compared to students who learn with traditional English language programs. Unfortunately, however, **the school finds that the current practices of the CLIL program do not meet these prescribed program expectations**. The school has found that the English instructional time cannot meet the requirement of 50% of the total instructional time and that the students demonstrate a low level of motivation and engagement for English learning.

To better understand the problem of practice, I conducted a literature review on two theory categories. One focuses on **second language acquisition** (Cummins, 2000; Ellis, 1994; Vygostsky, 1978), especially the CLIL learning, including the importance of balance between content and language, the CLIL instructions and assessments, and how to support struggling learners. Another focuses on theories of **motivations in second language acquisition**

(Anjomshoa & Sadighi, 2015; Gardner, 1988), including Gardner's social educational model, process-oriented theory, and theories regarding the motivations for Chinese students learning English in China.

The literature review informed two essential ideas: first, the importance of student agency, such as motivation and self-efficacy, in second language acquisition, and second, that the CLIL approaches to teaching can significantly impact students' learning motivation and engagement. Therefore, I adapted **Bower's Process Motivation Model** (2013) for this study and used it as the conceptual framework to guide my research questions and research design. This framework puts MSA learners' motivation towards English learning at the center, driven by the three motivational dimensions: learning environment, learner identity/self, and learner engagement. As a side note, my client, Moonshot Academy, highly praised this student agency-centered approach because it is well aligned with the school's mission and speaks to what the school has always valued and believed in: the importance of the student's social-emotional well-being and habits of mind developments to the student's growth, both academically and personally.

Informed by the literature review, the problem of practice, and the perspective angle to conduct the research, I would like to find out if the current practices in the CLIL program promote the learners' motivation in three domains suggested by the conceptual framework. Given that students and teachers are the first-line users of the program, data will be collected from their experiences in the CLIL program, focusing on the three domains. To this end, I developed two research questions that can give descriptive findings to inform the problem of practice.

1. **What are the students' experiences in the CLIL program?**

    2. What are the teachers' experiences in the CLIL program?

Based on the information required by the research questions, the research instruments to be used to collect the data are **student and teacher surveys**, **student focus groups**, **teacher semi-structured interviews**, and **journey mapping**.

Findings for the RQ1: What are the students' experiences in the CLIL program?

Finding #1: Overall, the students' experience in the CLIL program is positive. However, G9's perception has a lower level of positivity than other grades.

1. Students reported progressing in English with the CLIL program over time. Students in higher grades reported higher self-ratings on their English levels.

2. Students reported improvements in academic English through research, reading, and writing subject reports.

3. Students' feedback summative assessments are helpful to the students' growth and their English improvement.

4. Students noted an increase in self-awareness throughout the learning process.

Finding #2: Students identified three favorite aspects of the CLIL program and the three most improved skills throughout the program.

1. Students' three favorite aspects are learning more about different cultures, more chances to use English in class, and having fun.

2. The most improved skills throughout the program are research, listening and writing, and presentation skills.

Finding #3: Students identified two areas for improvement and three aspects of the program that demotivated them.

    <u>Two areas for improvement:</u>

1. Learner engagement.

2. Amount of English instructional time.

Three aspects of the CLIL program that demotivate them:

1. Difficulty level is not appropriately matched with the student's English proficiency level.

2. Lack of access to needed support for struggling learners.

3. Peer pressure.

Findings for the RQ2: What are the teachers' experiences in the CLIL program?

Finding #4: Overall, the teachers found that teaching in the CLIL program is challenging. They are not confident that they possess the necessary skill sets to teach the CLIL classes effectively.

1. Teachers reported a lack of knowledge and skills to teach English through content

   learning.

2. Teachers reported needing more support to help the struggling students.

3. Some teachers found that their English proficiency level is not sufficient to teach the

   content in English.

Finding #5: Six common misconceptions about CLIL teaching were identified among the MSA faculty. The misconceptions are listed below.

1. English in the CLIL program is an "abstract language" rather than an "additive language."

2. Content learning is more important than language learning.

3. Teaching English is the English subject teachers' job.

4. Teaching English vocabulary and grammar is the only thing that matters to improve

   students' proficiency level.

5. English learning only happens inside of the classroom.

6. Students aren't motivated, and I cannot change that.

Finding #6: Teachers' feedback showed a desire for program improvements that focus on program expectations, language standards, a support system, and learning outside the classroom.

1. Teachers reported that the program expectations hadn't been clearly communicated or fully implemented, such as how long the English instructional time should be and what the English language objectives are.

2. Teachers reported that English proficiency standards are missing in the school's milestone assessments.

3. Teachers found that the current school structure and the coaching system do not support students' English learning. For example, there is no CLIL coordinator and there is no motivation for English learning integrated in the coaching system.

4. Teachers noted that there is no English learning program built into dorm life, community service, or extra-curricular activities.

Based on these findings, the recommendations I made to improve the CLIL program at MSA are:

Recommendation 1 (Short-term)

Provide the MSA faculty with a series of CLIL pedagogical trainings that help them to understand the importance of their role as a language teacher in a CLIL program and equip them with the necessary skills to perform this role effectively.

Appoint a CLIL program coordinator to review the CLIL program's expectations, English proficiency standards, and English instructional time distribution across subjects and teachers.

Recommendation 2 (Medium-term)

Utilize the school's coaching system to support the students' learning by boosting the students' awareness as English learners, enhancing resilience when encountering difficulties, increasing English learning motivation, identifying personalized learning strategies, and helping students to understand the science of learning a language.

Recommendation 3 (Long-term)

   Build a learning ecology for the CLIL program by integrating English acquisition into the

dorm life, community service projects, and other extra-curricular activities.

Introduction

My partner organization is Moonshot Academy (MSA), which is located in Beijing, China. It is a boarding high school that offers a non-national curriculum for G9-G12 Chinese students who plan to study at colleges in English-speaking countries after graduation. In order to prepare the students for their learning beyond MSA, the school implemented a Content and Language Integrated Learning (CLIL) program. Given the importance of the students' English level to the school's enrollment and growth, the school sets very high expectations for its CLIL program. The first expectation is that the instructional time should be split evenly between the Chinese and the English languages. The second expectation is that students are more highly motivated and engaged by the CLIL pedagogical approaches when compared to students who learn with traditional English language programs. Unfortunately, however, the school finds that the current practices of the CLIL program do not meet these prescribed program expectations. Issues with the program include that the English instructional time cannot meet the requirement of 50% of the total instructional time and that the students demonstrate a low level of motivation and engagement to speak in English.

To address the problem of practice, I was invited to conduct a thorough investigation of the program and provide recommendations for the continuous improvement of the program. One of the school's core missions is to "cultivate fulfilled individuals" (What Is Moonshot Academy, n.d.). Therefore, the school puts a strong emphasis on cultivating learner agency through promoting "self-awareness and self-initiation" (What Is Moonshot Academy, n.d.). A coaching system is in place to support this mission. Taking that aspect into consideration, I designed a student agency-centered research approach that is well aligned with the school's mission and that speaks to what the school has always valued and believed in: the importance of the student's

social-emotional wellbeing and habits of mind developments to the student's growth, both academically and personally. I adapted Bower's Process Motivation Model (2003) for this study and used it as the conceptual framework to guide my research questions and research design. This framework puts MSA learners' motivation for English learning at the center, driven by the three motivational dimensions: learning environment, learner identity/self, and learner engagement.

Informed by the literature review and the problem of practice, I wanted to find out if the current practices in the CLIL program promoted the learners' motivation in three domains suggested by the conceptual framework. Given that students and teachers are the first-line users of the program, both quantitative and qualitative data was collected about their experiences in the CLIL program to provide descriptive findings about the problem of practices. The research instruments included student and teacher surveys, student focus groups, teacher semi-structured interviews, and journey mapping.

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Organizational Context

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Moonshot Academy (MSA) Beijing is an innovative boarding high school that offers a Chinese-English CLIL program for G9-G12 students. China has been growing as a competitive national power and deepening its engagement with the global economic and political forces. The demand for creative talents with a holistic worldview and a deep cultural understanding of the home country (What Is Moonshot Academy, n.d.) is rapidly growing. Given this consideration, in the National Education Conference of 2018 the Ministry of Education of the People's Republic of China called on all the educational sectors to nurture and develop talented students who are prepared for both the modernization of China and globalization of the world. MSA is fully aware that students are facing an unprecedent era in an ever-changing world. Jason Chen

(2021), the Head of School, asserted that the heart of the mission of MSA is to prepare students for this unprecedented era by providing them with the knowledge and skills to navigate both China's and world's current environments. That being said, the educational programs of the school should be rooted in the Chinese culture and the local contexts but also be on the lookout for external opportunities that are available for its graduates. Therefore, MSA designed an innovative Chinese culture-based international curriculum that is delivered in both the Chinese and English languages to prepare students for attending colleges in English-speaking countries.

Following the forementioned vision, one of the academic goals of MSA is that the students can simultaneously develop Chinese language and English language skills to support students' academic and career paths after they graduate. Content and language integrated learning (CLIL) is a type of language teaching in which the target language is the content and also the medium of instruction. In an ideal CLIL program, the instructional time is evenly distributed between two languages, the student's first language and the second language that the students are acquiring (Snow, Met, & Genesee, 1989). By the end of learning, the learner should be able to use English as a main learning language in academic situations, like lectures, seminars, or guest-speaker events, as a main tool to collect information and resources in academic inquiry, and as a main media to access different subjects and fields to support individual growth (Moonshot Academy, 2017). To achieve the aforementioned English learning outcomes, the amount of instructional time in English for an individual learner at the school across different subjects should reach 50% of their total instructional time. In addition, the teaching and learning process should organically integrate the content learning and the language development.

The school's mission is to, "Build an integrated learning and living community to cultivate fulfilled individuals, compassionate and active citizens, and support them in preparing

for the next stage of life" (What Is Moonshot Academy, n.d.). To realize this mission, the school

established a "future school model" (Appendix A) that balances the need for systematization of a

school with the need for individuality and self-initiation of learners (Moonshot Academy, 2019).

The school's curriculum consists of three modules: Disciplinary Courses, Interdisciplinary

Projects, and MSA Featured Courses. The core of each module is the emphasis of self-

exploration and deeper learning through project-based learning, differentiation of instruction, and

real-world problem connections (Moonshot Academy, 2019). MSA uses two transcript systems

to report a learner's progress. One is the Mastery Transcript Consortium (MTC), which gives a

holistic evaluation of knowledge, skills and competency (Appendix B), and another is the GPA

transcript (Moonshot Academy, 2019).

     MSA highly values the uniqueness of each individual leaner and has a personal coaching

system in place through which each MSA learner is supported by a mentor as they explore the

purpose of their life, set their own learning goals, and enjoy a personalized learning experience at

MSA. The coaching process starts with coach matching and relationship building and is followed

by periodic reflective dialogues with the coach and receiving support from the coach in various

areas of student life at MSA (Project & Coach, n.d.). To better serve the student's needs, the

school has recently reformed the Personal Coaching System. Through five dimensions of the

coaching system (learning ability, self-development, relationship, community engagement, and

family connections), the school helps students to construct a continuously evolving learning

environment that puts strong emphasis on the student's social-emotional development and habits

of mind development.

Problem of Practice

The problem of practice is that the current practices of the CLIL program do not meet these prescribed program expectations. The program has two primary expectations. The first expectation is that the instructional time should be evenly distributed between the Chinese and the English languages. The second expectation is that the students are more highly motivated and engaged by the CLIL pedagogical approaches when compared to students who learn with traditional English language programs. Unfortunately, however, the school finds that the current practices of the CLIL program do not meet these prescribed program expectations. Specifically, the English instructional time cannot meet the requirement of 50% of the total instructional time, and the teachers reported that students demonstrate a low level of motivation and engagement in English-delivered classes. The problem of practice was identified from the pre-research conversations I had with the school's Academic Director and some teachers.

English Instructional Time < 50% of the Total Instructional Time

Dr. Ryan Yang, the school's Academic Director, shared that the school struggles to achieve the goal of teaching 50% of instruction in English. Currently, the program requires each non-English subject to have at least one unit that is taught in English while all reading materials and resources are presented in English. Basically, this model gives a great deal of flexibility to the teachers to decide how much English they use in their instruction, and 50% English instructional time is no longer mandatory. Dr. Yang explained that, "This adjustment was made based on the feedback we received from our teachers." Many teachers reported that they had to reduce the instructional time in English because they found that the students were not able to fully understand the content if the instructional language was English. Moreover, the teachers noticed that when the assignments and assessments were completed in English, students were not

able to demonstrate their real understanding of the content. While facing the dilemma between content learning and language development, the MSA teachers always choose content over language. A direct impact of prioritizing content over language is that it reduces students' exposure to English and has a negative impact on the English learning outcome. This could further impact students' English proficiency level, college acceptance rates, and how the public perceives the quality of the CLIL program of the school. The longer-term impact would be fewer applications and lower enrollment, which would create a financial challenge for the school.

It has been five years since MSA has opened its doors. The first graduating class of MSA graduated in the summer of 2021. All MSA graduates who would like to continue their education will apply to colleges and universities in English-speaking countries. The CLIL program aims to prepare students for the college application process. As the class of 2021 began preparing to apply to colleges in English-speaking countries during their senior year in the fall of 2020, teachers and students provided feedback to administration that the student's English competency was not strong enough to support the students in completing the college application process independently. Areas where this was especially evident was included standardized testing (e.g., SAT), English writing skills, and college interviews.

Student scores on standardized testing exams, such as the SAT score, are essential to the college application process for Chinese students interested in applying to colleges in English-speaking countries. According to Dr. Yang, compared to the other top high school students in China, the MSA students' English standardized test scores are not competitive. Another concern was the students' English writing skills. Writing directly impacts a student's college application as the application essay is one of the key elements of admission decisions. When approaching writing, most students wrote the essays in Chinese first and then translated them into English.

This writing approach shows that the students of MSA were attempting to think directly through the first language while composing text and were more comfortable with translated writing. The third concern was students' English oral communication skills. The feedback from the college interviews exhibit that the students lacked confidence in conversing in a formal setting in English. The limits in vocabulary and syntax hindered the students' ability to fully demonstrate cognitive and academic competence in English.

These three concerns demonstrate that the current CLIL program struggles to fully realize the prescribed English learning outcomes. In its original design, by the end of learning the learner would be able to use English as a main learning language in academic situations, like lectures, seminars or guest-speaker events, as a main tool to collect information and resources in academic inquiry, and as a main media to access to different subjects and fields to support individual growth (Moonshot Academy, 2017). The school attributed the gap between the actual and desired learning outcomes to the insufficient English instructional time and wanted to find a solution to improve the situation.

Students Demonstrate a Low Level of Motivation and Engagement

The second expectation that the current CLIL practices fail to meet is the high motivation and engagement created by the CLIL pedagogical approaches. Compared to traditional English language programs, the CLIL program has been proven to be the most effective second language acquisition program because it can highly motivate and engage learners through an immersive learning experience (Qiang & Siegel, 2012). However, feedback from the pre-research conversations with the MSA teachers shows that the students demonstrated low levels of motivation and engagement during their English learning.

As a boarding high school, MSA can recruit students from different cities and towns in China. From a national survey on language learning, Wei and Su (2012) found that the English proficiency level of students varies widely between different cities and areas in China. The English education of students from big cities, such as Beijing and Shanghai, is significantly better than the education of students from other areas. Therefore, nationwide student recruitment generates a very diverse English learning background student profile at MSA. Teachers believe that students' various English proficiency levels contribute to the challenges of keeping students motivated and engaged during English learning. Teacher also expressed their frustrations with not knowing how to help struggling learners.

Additionally, teachers note that some students are not psychologically or academically prepared for MSA's innovative curriculum. Given the challenge of learning content in a second language, individual student agency, such as motivation and self-efficacy, plays an important role in a student's learning success. However, teachers observed that the students lacked motivation to work hard on acquiring English in an environment where the majority of the students did not speak the language. For instance, the works the students submitted were not of the best quality, the participation levels in class activities were low, students did not take ownership of their learning and lacked initiative, students attempted to avoid difficult tasks, and students demonstrated little to no resilience when encountering challenges while learning English. Therefore, MSA teachers concluded that the current CLIL practices do not effectively motivate and engage students learning.

Literature Review

The problem of practice requires my attention to two areas. One is about the CLIL program' expectations, pedagogy and practices, another is about learning motivation in second language acquisition. To better understand the problem of practice discussed above, I conducted a literature review on two theory categories. The first one focuses on second language acquisition, especially the CLIL learning theories, including the importance of balance between content and language, the CLIL instructions and assessments, and how to support struggling learners. Another focuses on theories of motivations in second language acquisition, including Gardner's social educational model, process-orientated model, and motivations for Chinese students learning English in China.

A Review of Second Language Acquisition Theories

Before the 20th Century, to understand the classical literature in European countries, scholars needed to learn a different form of the language than what they used in their daily life. The main method of the learning a new language was called "grammar-translation" (Ellis, 1994, p.219). and the learning content included vocabulary, grammatical structures, and syntax of the language. Teacher-centered instruction is the main teaching method, where the teacher literally teaches the meaning of each vocabulary and form of each grammatical structure. The learning outcomes are measured by how well students can memorize and translate from the second language to their first language. This was the earliest model of second language teaching and learning in history. This model of teaching and learning is still used in many areas and countries today (Ellis, 1994).

In the early 20th Century, an audiolingual approach was developed in North America. The difference is that this approach focuses on speaking skills. This approach is still popular in many adult learners of a second language, when the oral communication skills are adequate to serve their purpose of learning the language. Many inherited languages are also passed down from generation to generation through this approach (Ellis, 1994). Behaviorist theory emerged in the mid of the 20th Century and had a significant impact on second language learning. The notion of behaviorism requires stimulus, response, and reinforcement in a learning process. In the case of second language learning, it means a big number of repetitions and reinforcements (Mitchell & Myles, 1998). We can see this approach as a supplementary to the "grammar-translation" model (Ellis, 1994, p.219).

In the 70s of the 20th Century, Krashen (1982, 1994, 2002) distinguished the difference between "second language learning" and "second language acquisition". He believes that the second language acquisition follows a predictable "natural order". The level of vocabulary and grammatical structures have a natural order to be acquired in second language acquisition process. His comprehensive input hypothesis suggests that it is important to expose to the target language as much as possible for a successful second language learning experience. He also explains that the speaking skills should be acquired in a natural way and applied unconsciously. In addition, Krashen (1994) asserts that the importance of "affective filter" in second language acquisition, which means that the emotions/feelings of the learner mediates the learning process. Built on Krashen's notions, Cummins (2000) also hypothesized two domains of language learning: basic interpersonal communication skill (BICS), which requires 1-2 years to acquire, and cognitive-academic language proficiency (CALP), which requires 5-7 years to acquire. This

notion makes all language educators ponder what learning expectations they need to set for their students, and how the lessons should be planned based on the different learning expectations.

In the 90s of the 20th Century, Vygostsky (1978)'s socialcultural theory of human learning gained linguists' attention. As he argues all learning takes place in a social process, Haugen (1972) innovatively raises a conceptual framework that describes languages as not something that is isolated from their environments. Language learning need to be studied in a context. Therefore, the social interactionism of second language acquisition overlays the areas of biology, psychology and linguistics and connect the components of organisms, agents and languages organically and historically in an learning context (Steffensen & Kramsch, 2017). Based on the socialcultural theory, a new second language acquisition approach, which aims to create a situated learning context for learners, has become popular. Language educators often call this type of approach learning language through language approach, language immersion approach, or content and language integrated learning approach.

Content and Language Integrated Learning

Content and language integrated learning (CLIL) approach aims to develop a second languages through a content-based learning. That is the learning of language through the medium of another curriculum subject. The first CLIL program started in Canada in the 1950s, which was designed to develop the French language proficiency for the English speakers in the Quebec region (Qiang & Siegel, 2012). The models of CLIL include subject courses, subject courses plus language classes/units and language settings based on content/thematic teaching. Based on student's language level and learning background, some students may receive additional support either in the language learning or in the subject knowledge area. The design of the lesson or unit

is content-driven with a specific emphasis on the language development alongside. Therefore, the

learning expectations should include both curriculum area and linguistic competence (Bower,

2013). The CLIL approach has been proven to be one of effective ways of acquiring a second

language, given that, compared to the traditional language learning, it develops learner's second

language skills, improves intercultural competence and deepens discipline understanding through

intensive exposure to the target language, immersive cultural experience and application of

metacognition across languages (Klimova, 2012). Students of CLIL program were documented

to academically outperformed students in traditional programs (Qiang & Zhao, 2001). Beyond

the academic benefits, the CLIL approach also has cognitive, social, and affective benefits

(Alanís & Rodríguez, 2008).

Coyle (2007) developed the 4Cs framework of CLIL that explicitly explains the

connections between the 4 components of CLIL during the instruction: content (subject matter),

communication (language), cognition (learning and thinking) and culture (social awareness of

self and otherness). Coyle (2009) further articulated that an effective CLIL program needs to

achieve a balanced development in content learning, cognitive processing, language skills in

communicative context, and a deepening intercultural understanding and the positioning of self

and otherness based on attitudes and values (Coyle, 2009, p.110). Content, cognition, and culture

are interconnected through communication (Scott & Beadle, n.d.).

Figure 1
CLIL 4Cs Framework Adapted from Coyle's Work (Scott & Beadle, n.d.).
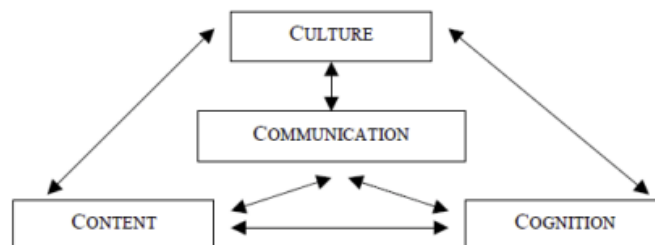
Challenges of Content and Language Integrated Learning

Content and Language Balance. The instructional challenges of CLIL have been widely discussed. Cammarata and Tedick's research (2012) points out that CLIL teaching lacks a balance between content and language. Teachers "tend to focus on subject matter content at the expense of language teaching" (Cammarata & Tedick, 2012, p.251). CLIL instruction design tends to embodies the natural learning process of a second language. Language is considerd as the vehicle to learn the subject matter content, and teachers teach language "through language" (Cammarata & Tedick, 2012). The teacher recruitment also put more weight on teaching qualification in the subject matter content over the second language acquisition. As a result, the teaching process lacks focus on "grammatical accuracy, lexical specificity and variety, socialinguistically appropriation" (Cammarata & Tedick, 2012, p.253). From a perspective of curriculum alignment, many CLIL curricula focuses on systematic development of the subject matter content but ignores the development of the "functional linguistic" (Cammarata & Tedick, 2012, p.253), that is the grammatical, syntactic and textual structures of a language. Teachers also lack pedagogical strategies to teach students to make cross-linguistic connection between the two languages. To have effective immersion teaching, according to Cammarata and Tedick (2012), schools need to address five key dimensions: teachers' identity about themselves as content and language teachers, a supportive program structure that provides the teachers with time, recourses and pedagogical support, a collaboration model for the teachers to learn and grow together, an increased awareness of the balance of content and language, and a language development sequence alongside the content teaching (Cammarata & Tedick, 2012, p.257).

Cammarata and Tedick (2012) suggest CLIL need to change the belief of "two for one" approach (Lightbown & Spada, 2006). CLIL teaching needs two separate set of curriculums for

subject matter content and language. Teachers that know how to teach the content and how to

teach the language are equally important in the pedagogical development. The findings also

suggest that the school's support of the program is important. Support includes increasing

training and preparation time for teachers, increasing the opportunities for collaboration,

providing mentoring and coaching opportunities, and assigning a CLIL program coordinator to

oversee the curriculum development and alignment (Cammarata & Tedick, 2012).

An Integration of Content and Language in the Instruction. A conceptual framework

of integration of content and language for the CLIL instruction has been provided to support the

curriculum and instruction development. In this framework, teachers form two types of

language-learning objectives: content-obligatory language objectives and content-compatible

language objectives. Teachers should also be informed by two curricula: the second language

curriculum and the subject matter content curriculum. The assessment objectives should be

developed for both content learning and language development (Snow, Met & Genesee, 1989).

Figure 2
Snow, Met & Genesee's Conceptual Framework for Content and Language Integration (1989)
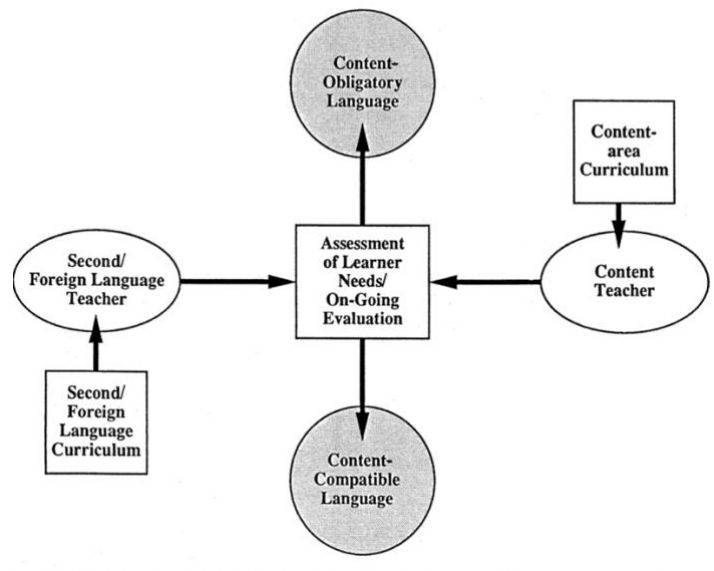
Content-obligatory language objectives are must-meet learning goals for the language, which specify both structural and functional requirements for students to "develop, master and communicate" about the learning content. For example, in a first-grade Mathematic class, the students need to master a number of words in order to learn, understand, and communicate the mathematic concept of commutative property word problems. The content-obligatory objectives for this lesson are the words used to express addition in word problems, such as "plus", "equals", "together"; the sentences structures to express the addition word problems; the words used to identify the order of addends; the modal helping verbs to compare and contrast the relationship between the order of the addends and the sum in an addition word problem. The content-compatible language is the language that is supplementary to the required language and the learning process. It is not a must-meet learning goal for this particular lesson, but it is in the developmental scheme of the language learning curriculum and assessment. Back to the example earlier, the content-compatible language objectives for the first-grade mathematics class include the words are needed for the activities, such as the encouragement, direction and verbal support to others with phrases like "come on", "way to go" for a Ping-Pong match activity; the words of sporting activities to supplement to the Ping-Pong match; prior knowledge and words that are related to this lesson, such as numbers, animals, and months of the year.

Struggling CLIL Learners

Questions that every CLIL teacher needs to ask during their teaching practice is how to identify a struggling learner, when to intervene, and how to support the learner? A struggling CLIL learner refers to a student has encountered "academic, linguistic, social-emotional, and/or behavioral" issues for about 6 weeks or more (Fortune & Menke, 2010). Academically, these

learners perform lower than the average of their peers'. Linguistically, they have difficulties in following the instructions and struggle to freely express themselves in the target language. Researches have long empirically documented that language learners' social-emotional skills are highly associated with their academic achievement (Kitsantas, Cheema, & Ware, 2011). Much evidence shows that students' self-efficacy has played an important role in closing the academic achievement gap (Soland & Sandilos, 2021). Besides providing social-emotional support to the struggling learners, it is important for teachers to acquire instructional strategies that support the struggling learners in class.

Fortune & Menke (2010) suggested five research-based instruction techniques and approaches to help with struggling CLIL learners. The first one is differentiated instruction, which requires the teacher to teach and assess the students based on their learning needs and styles. To achieve an ideal result of differentiated instruction, the teacher needs to investigate the student's learning background, how he/she learns, student's prior knowledge of the topic, and methods to motivate the student etc. The second technique is multi-model teaching and learning, which emphasizes providing a variety of ways to present the learning content. Gardner (1983; 1999) identifies eight intelligences of human beings, which suggests a learner might more easily grasp a concept so that the educator should plan accordingly. The third approach is strategies-based instruction, which aims to help the struggling leaners who has problems with managing the learning process. That is the student does not obtain the appropriate learning skills to keeping track of learning materials, taking note, prioritizing tasks and organizing learning, for instance. The primary goal of this approach is to grow student to be an independent learner, who master a set of approach to learning to plan their learning and implement the plan successfully (Chamot, Barnhardt, & Robbins, 1999). The fourth approach is five standards of effective pedagogy,

which aims to occupy learners to learn language and literacy competence through the content areas, to develop high-order thinking skills, and to co-construct new understanding. The five standards are outlined below (Dalton, 1998):

- Joint Productive Activity (JPA): Foster learning through joint productive activity between teacher and students.

- Language and Literacy Development (LLD) across the Curriculum: Develop the language and literacy competencies alongside the curriculum instruction.

- Making Meaning (MM): Connect learning with real world experience and problems.

- Teaching Complex Thinking (CT): Challenge students to high-order think.

- Teaching Through Conversation (IC): Teach students through communicative approaches.

The last technique is cooperative learning. Some examples of cooperative learning activity structures are: round robin, numbered heads together, think-pair-share, jigsaw, four corners, and match mine/information gap. As Kagan (1990) argues that the use of cooperative learning activity structures increases the interactions among students, creates positive interdependence in the group, distributes individual and group accountability and improves group processing. The advantages of this approach are higher achievement and productivity compared to traditional competitive learning approach and healthier learning environment. The psychological and social health benefits of the approach contribute greatly to struggling learner's success in second language acquisition journey.

Assessments for CLIL

Integrated Performance Assessment. The ultimate goal for all language learning programs is to prepare students to communicate, both socially and academically, in the target language with intercultural competences. That goal has challenged all language educators to think critically to plan, teach, and create assessments that can allow students to demonstrate the learned content and skills to address issues in real-world contexts (Shrum & Glisan, 2015). The American Council on the Teaching of Foreign Languages (ACTFL) (2015) published World-Readiness Standards for Learning Languages, featuring five Goal Areas, known as the "Five Cs of Foreign Language Education", which are Communication, Cultures, Connections, Comparisons, and Communities. Sponsored by the U.S. Department of Education International Research and Studies Program, ACTFL (2000) developed the Integrated Performance Assessment (IPA), which provides a means for learners to demonstrate their ability to communicate the learned content with the interpersonal, interpretive, and presentational modes of communication. The essential concept of IPA is *authentic*. It assesses the student's ability to use a repertoire of knowledge and skills effective and efficiently to negotiate and solve a real-world task, which requires judgement and innovation so that the student is motivated to apply the learning. The assessing process also provides the student with opportunities to "rehearse, practice, consult resources, get feedback, and refine performances and products" (Wiggins & McTighe, 2005, p.154).

The design process of IPA follows Wiggins and McTighe's (2005) backward design model, which starts with identifying desired results, determining acceptable evidence, then ends with planning learning activities. The 5Cs Standards are the foundation that influences all other decisions about planning a unit of instruction, which should be followed by the essential question that conceptualizes the overall learning of the unit. The next step is to set up the instructional

goals, which are the beginning steps for the IPA design when the teacher asks: How will you know that the students have achieved the goals? The Interpretive Mode of IPA gives learners opportunities to listen to, read, or view authentic materials. Learners demonstrate understanding of these materials on two levels: literal and interpretive. At the literal level, learners demonstrate their literal understanding of the text; at the interpretive level, learners are encouraged to read between the lines to show that they can detect main ideas by using their background knowledge and cultural understanding. The Presentational Mode of IPA requires learners to prepare a written or oral presentation for an audience. The process of preparing the presentation is very important and includes multiple drafts of written text and/or multiple rehearsals of an oral presentation with feedback in order to present a final, polished product. The Interpersonal Mode includes two characteristics: unrehearsed and negotiated. The former one requires learners to engage in a conversation or discussion without preparation. The latter one requires learners to listen to the other participants' comments and respond accordingly. All performance tasks need to be accompanied by rubrics. The teacher needs to make sure to communicate clearly how the tasks will be graded and what the student needs to do to do well (Adair-Hauck, Glisan & Troyan, 2015).

Motivations in Second Language Acquisition

In the discussion of the history of second language acquisition theories, the prevailing epistemological point of view in acquiring second language is moving from drills, repetitions, and memorization "grammar-translation" to socialcultural theory of learning (Cummins , 2000; Ellis, 1994; Krashen, 1982, 1994, 2002; Mitchell & Myles, 1998; Steffensen & Kramsch, 2017; Vygostsky, 1978). During the process of evolving, examining the role motivation plays for a second language learner, understanding how the construction of learning impacts learner's

motivation, and knowing how the interaction between the learner and their environment mediates one's motivation have become more and more important (Anjomshoa & Sadighi, 2015). Motivation is considered by many researchers (Anjomshoa & Sadighi, 2015; Gomleksiz, 2001; Reece & Walker, 1997; Shulman, 1986) an essential element for the success of second language learning process. Highly motivated students do not only response effectively to the learning facilitations, they also help the class by creating a progressive learning environment, because they tend to be more engaged, persistent, and resilient. This enables more motivated students to reach higher achievement in learning (Anjomshoa & Sadighi, 2015; Gomleksiz, 2001; Reece & Walker, 1997; Shulman, 1986). One important notion pointed out by Anjomshoa and Sadighi (2015) was that it is important to translate the theories into the practices. Therefore, educational programs should create motivational structures that incorporate motivating principles into instruction, assessment, community building and out-reach activities. It is because the learner's motivation is not fixed, it can be changed or modified (Anjomshoa & Sadighi, 2015). The educators should identify all the possible opportunities to positively impact the learner's motivation. Now let's take a look at some motivation theories in second language acquisition that will be applied in this research.

Gardner's Social-Educational Model

The studies of second language acquisition motivation from a sociolinguistic perspective identified two types of motivation (Gardner, 1988; Gardner, Masgoret, Tennant, & Mihic, 2004; Masgoret & Gardner, 2003). One is integrative orientation, which is often intrigued by learner's passion and interests in the target language and its related cultures; another is instrumental orientation, which is more focused on the academic and economic benefits of learning the language, such as the benefit of passing the exam, getting a good grade, finding a good job (Wang, n.d.). However, Morie and Gobel (2006) posited that the importance of the role of

integrative and instrumental orientations in second language learning has been overelaborated.

Studies found the correlation between the integrative or instrumental orientation and learning

outcomes to be inconsistent (Burke, 2004; Chihara & Oller, 1978; Gardner & Lambert, 1972;

Lukmani, 1972; Oller). Tremblay and Gardner (1995) later expanded this model by adding the

elements from expectancy-value and goal theories, which confirms that goal salience, valence,

and self-efficacy mediate the relationship between language attitudes and motivational behavior.

The study further asserts that positive language attitudes will direct students' goal setting

process, and language attitudes also impact valence. No doubt, Gardner's studies about socio-

psychological motivation had great influence in second language acquisition theories (Gardner,

1985. as cited in Huang 2007) incorporated various individual variables such as cognitive and

affective variables in order to provide a comprehensive interpretation of language learning. The

model also distinguishes four aspects of the second language acquisition process: antecedent

factors, individual difference variables, language acquisition context and outcomes. The four

aspects could have significant implications for future studies on motivation towards second

language learning (Dörnyei, 2001a).

The Process-Orientated Model of Second Language Acquisition

Dörnyei's Work on Motivation. Dörnyei (2003a) acknowledges that second language

learning is socially and culturally bound and that is the reason that the studies of motivation in

second language acquisition was originally initiated in the social psychology field. He also

distinguishes the macro perspective and micro perspective of the social and cultural bound in

second language acquisition. The macro aspect focuses on the impact from the student's past

experiences and social connections, which is called product-oriented approach; the micro aspect

addresses the influence from one's "situation specific", which is called process-oriented

approach (Dörnyei, 2000). Given that the product-oriented approach is more established and consistent (Dörnyei and Csizér 2002), Dörnyei (2005) suggests a "situated approach" that recognizes a temporal perspective of motivation would be more impactful. As he argues that a process-orientated approach that can closely examine the fluid state of motivation in its relationship to specific learner behaviors and classroom processes. A Process Model of Second Language Motivation was developed by Dörnyei and Ottó (1998) that explains how motivation can be generated, sustained and protected in pre-actional, actional and post-actional stages respectively, and finally processed by the learner as a form of evaluation after the completion of the action, which will in turn influence future motivation of the learner. Choice motivation, executive motivation during the activity and motivational retrospection after the action are the motives involved in the process. Under the umbrella of the Process Model of Second Language Motivation, Dörnyei (2003a) identifies three areas that matter to the motivational process: the willingness to communicate, task motivation and use of language learning strategies. The willingness to communicate has nothing to do with the language competence, it merely focuses on the desire of the learner to communicate regardless of their linguistic competence. Task motivation involves how motivation "is negotiated and finalized in the learner" (Dörnyei, 2003a, p.15). Language learning strategies are about self-regulatory learning, which explains how a learner maintains motivated until the completion of the task. To prepare the scaffold the learning content to best sustain student interests and promote engagement, teachers need to consider all three components during the planning, teaching and learning processes.

Dörnyei's work is also influenced by the relational view of learning (Ushioda, 2009) and the self-determination theory (Noel, Pelletier, and Vallerand, 2000). The "person-in-context relational view of motivation" claims that individual's motivation and identities are shaped by

the specific cultural and historical context the individual is in. This notion helps to explain the complexity of interactions within evolving learning context within CLIL settings. Self-determination theory (SDT; Deci & Ryan, 1985), a theory that explain second language learning motivation from a psychological point of view, has gained popularity. Self-determination theory has two important elements: intrinsic motivation and extrinsic motivation. Intrinsic motivation is generated inside a person. The drive for the desire is completely internal. Extrinsic motivation, in contrast, involves expectations and incentives from outside. The drive of action is from an outside source rather than the self (Anjomshoa & Sadighi, 2015). Noels' work (2001) of exploring the relationships between intrinsic and extrinsic goals in second language acquisition found a correlation between intrinsic motivation and identified regulation. This finding addresses why it is important for the teachers to clarify the rules, regulations, and expectations to students as it may help them realize how the learning is personally important to them. Another important finding for the teachers to know is that intrinsic elements such as pleasure or interest may not sufficiently sustain motivation in students when they encounter obstacles, therefore, it is necessary for the teachers to employ persuasion skills to articulate the personal importance of the learning.

Dörnyei (2001)'s ultimate goal is to examine student's motivation in classroom - a specific situated environment. He argues the complicated dynamic of a classroom makes it impossible to capture this complexity by a single motivational principle. In order to understand the motivation and student's behaviors from a micro perspective, he conceptualizes second language acquisition motivation on three levels: language level, learner level, and learning situation level. The language level focuses on the social aspect of second language learning motivation, which is stemmed from Gardner socio-educational model (1985, 1995, 2003). The

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learner level focuses on the impact of individual characteristics on motivation, how one's

internal desire for achievement related to self-confidence. The learning situation level is

associated with the learning environmental motivational factors: teacher-specific, course-

specific, and group-specific motivational components. Table 1 outlines the details of the three

motivational levels.

Table 1
Dörnyei's Framework of Second Language Acquisition Motivation (1994)

LANGUAGE LEVEL					
Integrative Motivational Subsystem					
Instrumental Motivational Subsystem					
LEARNER LEVEL					
Need for achievement					
Self-confidence					
Language Use Anxiety					
Perceived L2 Competence					
Causal Attributions					
Self-Efficacy					
LEARNING SITUATION LEVEL					
Course-Specific Motivational Components					
Interest	Relevance		Expectancy		Satisfaction
Teacher-Specific Motivational Components					
Affiliative Drive	Authority Type	Direct Socialization	Modelling	Task Presentation	Feedback
Group-specific Motivational Components Goal-orientedness					
Norm & Reward System					
Group Cohesion					
Classroom Goal Structure					

Williams and Burden's Work on Motivation. Williams and Burden (1997) are also

advocators for examining the relationship between learner's motivation and classroom processes.

From a social-constructivist perspective, they describe three interactive stages of motivation:

reason for doing something, deciding to do it and sustaining the effort. This notion resonates

with Dörnyei and Ottó (1998)'s concept of pre-actional, actional and post-actional stages. What

the difference in Williams and Burden's model is that in the exploration of what makes a learner

want to learn, their model identifies internal factors. The range of internal factors identified

includes intrinsic interest, sense of agency, self-concept, mastery, affective states, gender, age,

developmental stages and learner's perceptions of the value of a learning activity. Those factors

are all context-dependent. The table 2 below is the summary of Williams and Burden's

framework.

Table 2 *Williams and Burden's Framework of Second Language Acquisition Motivation (1997)*

INTERNAL FACTORS		
Intrinsic interest of activity		
arousal of curiosity	optimal degree of challenge	
Perceived value of activity		
personal relevance	anticipated value of outcomes	
intrinsic value attributed to the activity		
Sense of agency		
locus of causality		
locus of control re: process and outcomes		
ability to set appropriate goals		
Mastery		
feelings of competence		
awareness of developing skills and mastery in a chosen area		
self-efficacy		
Self-concept		
realistic awareness of personal strengths and weaknesses in skills required		
personal definitions and judgments of success and failure		
self-worth concern		
learned helplessness		
Attitudes		
to language learning in general		
to the target language		
to the target language community and culture		
Other affective states		
confidence		
anxiety, fear		
Developmental age and stage		
Gender		
EXTERNAL FACTORS		
Significant others		
Parents	teachers	peers
The nature of interaction with significant others		
mediated learning experiences		
the nature and amount of feedback rewards		
the nature and amount of appropriate praise		
punishments, sanctions		
The learning environment		
Comfort resources		
time of day, week, year		
size of class and school		
class and school ethos		
The broader context		
wider family networks		
the local education system		
conflicting interests		
cultural norms		
societal expectations and attitudes		

Coyle's Work on Motivation. Built on Dörnyei's notions and work (1998, 2000, 2002, 2003, and 2005), William and Burden's (1997) framework, Coyle (2011) proposes a process model to investigate motivation within CLIL settings, focusing on the "Learning environment, Learner engagement and Learner identities/self".

Figure 3 *Coyle's Process Model- Investigating Motivation in CLIL Settings (2011)*
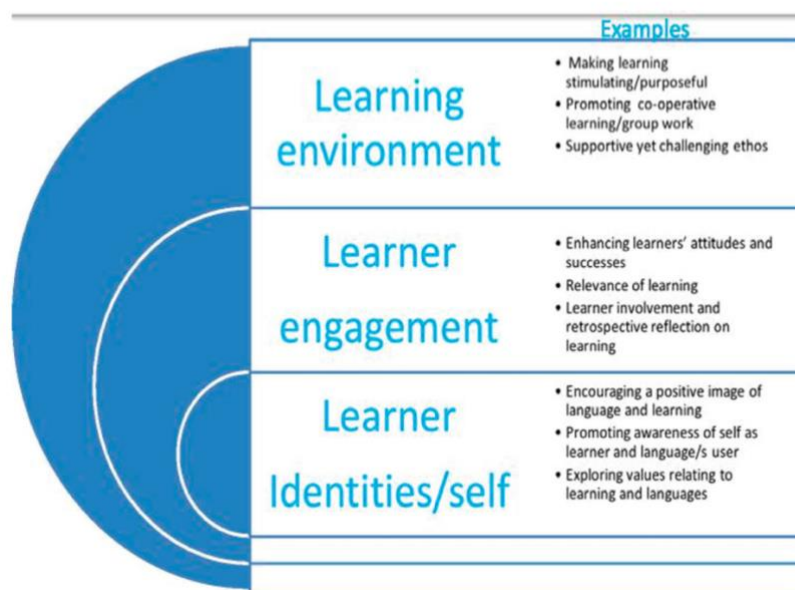
Coyle's (2011) process model forms reciprocal interactions between classroom learning environment, learner experiences of using second language, and learner's personal attributions towards second language learning. The process model examines how these interactions have a collective impact on student's motivation. This model provides educators with a practical investigational tool to review a CLIL program from a motivational perspective. Compared to most educational program evaluation tools, which usually assess the quality of a program by examining its relationships between pedagogical approaches and academic achievement, this model proposes an innovative tool to review an educational program from a fresh perspective.

Bower's Work on Motivation. Bower (2013) compared and contrasted the Dörnyei's (1994) model and William and Burden's (1997) model, took the merits of both approaches and integrated discrepancies and multiple perspectives between the two models, then applied them into Coyle's (2011) framework to form a detailed structure for the Process Motivation Model to investigate CLIL in the classroom in England. The aspects of learner motivation described below provide Bower with a guideline on research methods and data collection instruments for her research.

Table 3 *Bower's Process Motivation Model for Investigating CLIL in England (2013), adapted from Coyle, 2011, Dörnyei, 1994, Williams and Burden, 1997.*

Aspects of motivation	Principal Characteristics	Exemplification of potential sources of evidence for principal characteristics: what to look for
Learning environment		
Teacher specific	The nature of interaction within the classroom: environment promotes purposeful, stimulating learning within a supportive ethos	• affiliative motive (to please the teacher) • authority type (controlling vs. autonomy-supporting) • appropriate challenge • modelling/task presentation • appropriate enthusiasm • nature of learning experiences • learner independence • nature, timing and amount of feedback • nature and amount of appropriate praise • rewards/sanctions
	Environment fosters positive emotions	• confidence • fear/anxiety • enjoyment/pleasure
Course specific	Interest/relevance	• stimulating course content • relevance to pupils' needs • resources • time of day, week, year • expectancy of success
Group specific	The nature of interaction with in the group: promoting co-operative learning	• size of class and school • class and school ethos • group cohesiveness • prevailing goal structure (cooperative, competitive or individualistic group work) • engagement

Learner engagement		
	Perceived value of activity	• personal relevance • anticipated value of outcomes • intrinsic value attributed to the activity • identified regulation (helped by teachers/others to identify how the learning is important to them)
	Pupil attitudes towards	• language learning in general • the TL • the TL community

	Pupil perceptions of their learning	• pupil perceptions of:
		   o their effort
		   o their progress
		   o the level of difficulty/challenge

	Engagement in learning tasks	• willingness to engage • response to tasks • use of learner strategies • WTC willingness to communicate • pupil use of the TL • progress
Learner Identities/self		
	Self concept	• realistic awareness of personal strengths/weaknesses in skills required • personal definitions and judgements of success and failure • self worth/concern • learners understand *how* they are motivated • exploration of values relating to learning and languages • learned helplessness
	Mastery	• feelings of competence • awareness of development of skills • self efficacy • ability to set appropriate goals

Motivation for Chinese Students Learning English in China

Ever since China started its reform and opening up in the late 70s last century, China has never been slowing down its steps towards modernization (Qiang & Siegel, 2012). It has deepened the international cooperation and global integration in the areas of economy, business, capital, talent development, technology, data, environmental impact and culture. The rapid increase of China's global scale has greatly enlarged the needs of English learning and generated a higher expectation for English education (McKinsey Global Institute, 2019). To meet the growing interest in English education, English CLIL education was introduced to mainland China in 1996, since it is considered one of the most effective second language learning approaches (Klimova, 2012). English also becomes one of the core subjects in the Chinese national curricular. That meant Chinese students are required to take English courses at schools

regardless if they are interested. To motivate students and stay motivated for English learning is

a topic being discussed among both educators and students (Yihong, Yuan, Ying & Yan, 2007).

Chinese students consider English to be the most difficult subject to learn (Zhou, 2004).

One of the reasons is rooted in the difference between the Chinese language system and the

English language system. In addition to this, most English learning settings in China are not

ideal. The adversities lie in limited exposures to the English language, inadequate authentic

opportunities for using the language, lack of teachers who are equipped with language

pedagogical skills and experiences. Learning a new language in an environment where the target

language is not used widely makes the acquisition challenging. When the learning condition is

not in one's favor, the role of one's motivation to learning the target language becomes

extremely important to one's success (Anjomshoa & Sadighi, 2015).

A comparative research on attitudes and motivation for learning English between Chinese

high school students and Chinese junior high school students demonstrated that the Chinese high

school students showed less interest in English learning compared to their junior high peers

(Tachibana, Matsukawa & Zhong, 1996). Perhaps this could be attributed to the shift in

motivation. As the junior high school students move to the high school stage, the reasons for

learning English also change significantly. Both junior high and high school students rate effort

very important in English learning, while junior high school students have a strong pragmatically

oriented motivation to study English and instrumentally motivated as they believe English would

be useful and necessary for their future lives (Tachibana et al., 1996).

Another study about Chinese students learning English interprets English learning

motivation from its relationship with self-identity changes (Yihong et al., 2007). The researchers

(2007) identified seven motivation types: intrinsic interest, immediate achievement, individual

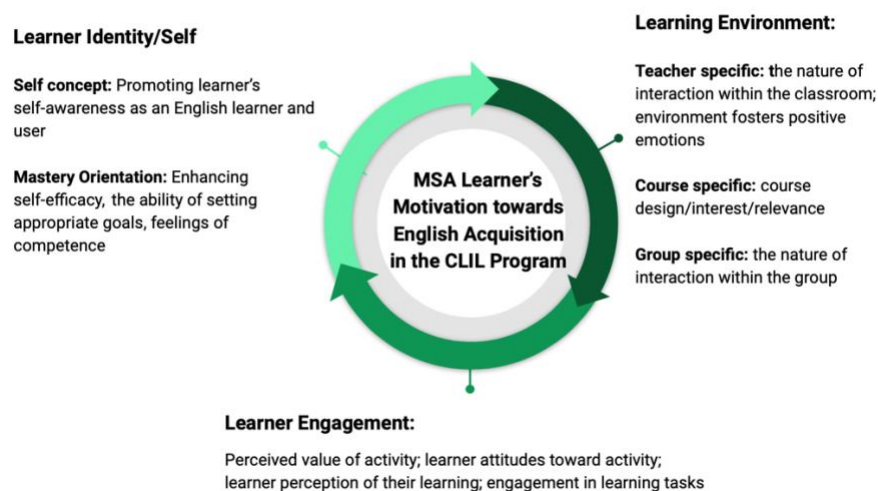development, information medium, going abroad, social responsibility and learning situation.

They defined six categories for the items of self-identity changes. The first one is self-confidence change, which is the change in the perception of one's own competence. The second one is additive change, which means the learner perceives learning English would add on to his/her competence assets, such as being bilingual and gaining intercultural competence. The third one is subtractive change, which means the learner perceives learning English is diminishing their identity as Chinese or learning English is at expense of Chinese or other cognitive developments. The fourth one is productive change, which means learning English and developing Chinese have positive impact on each other. The fifth one is split change, which means an identity conflict arise due to acquiring multiple languages and cultures. The last one is zero change, which means learning English has zero impact on one's identity change. The research finds that intrinsic interest is strongly correlated with productive and additive changes, which means the more interests one demonstrates in English learning and culture, the more likely one is to experience productive and additive changes in self-identity. A strong interrelation between individual development motivation and self-confidence change indicates the importance of long-term instrumental motivation and function of English learning in boosting one's self-confidence (Yihong et al., 2007).

Conceptual Framework

The literature review informed us of two essential notions: first, the importance of student agency (i.e. motivation and self-efficacy) in second language acquisition; second, how the CLIL approach to teaching can significantly impact students' learning, motivation, and engagement (Anjomshoa & Sadighi, 2015; Fortune & Menke, 2010; Tachibana et al., 1996; Yihong et al., 2007). In addition, based on the literature review on Chinese students' motivation towards English learning, Chinese students perceive motivation and effort as very important elements for a successful English learning experience (Zhou, 2004). Therefore, I adapted Bower's (2013)

Process Motivation Model (PMM) for this study and used it as the conceptual framework to guide my research questions and research design. Bower's (2013) PMM consists of three domains. The first domain is to construct a motivational learning environment through teachers' teaching practices, course design, and interactions within the group. The second domain is to engage students by increasing the perceived value of activity, changing learners' attitudes about the activity. The third domain is to increase learners' identity/self as an English learner by promoting learners' self-awareness and mastery orientation. As a side note, my client, Moonshot Academy, highly praised this student agency-centered approach because it is well aligned with the school's mission and speaks to what the school has always valued and believed in: the importance of the student's social-emotional development and habits of mind development in the student's growth, both academically and personally. Furthermore, the school would like to see their educational program and curriculum be informed by students' experience and perceptions. Hence, the conceptual framework of the process motivation model is a sufficient and good fit to answer all of the research questions.

Figure 4 *Conceptual Framework of Process Motivation Model for Investigating Content and English Language Integrated Learning at MSA*

Learner Identity/Self

Self concept: Promoting learner's self-awareness as an English learner and user

Mastery Orientation: Enhancing self-efficacy, the ability of setting appropriate goals, feelings of competence

Learning Environment:

Teacher specific: the nature of interaction within the classroom; environment fosters positive emotions

Course specific: course design/interest/relevance

Group specific: the nature of interaction within the group

MSA Learner's Motivation towards English Acquisition in the CLIL Program

Learner Engagement:

Perceived value of activity; learner attitudes toward activity; learner perception of their learning; engagement in learning tasks

Research Questions

Given the problem of practice I needed to solve and the perspective angle I would use to investigate the CLIL program at MSA, I wanted to find out if the current practices in the CLIL program promote the learners' motivation in the three domains suggested by the conceptual framework. Since students and teachers are the first-line users of the program, data was collected about their experiences in the CLIL program. Therefore, two research questions are: What are the students' experiences in the CLIL program? What are the teachers' experiences in the CLIL program?

Table 4

Research Questions with Conceptual Framework and Data Collection Method

Research Questions	Lit Review	Data Collection Method
1. What are students' experiences in the CLIL program?	Second language acquisition theories; CLIL; motivation in second language acquisition; motivation for Chinese students learning English in China.	Journey mapping, student survey, student focus group
2. What are teachers' experiences in the CLIL program?	CLIL; motivation in second language acquisition; motivation for Chinese students learning English in China.	Teacher survey, semi-structured teacher interview

Project Design

Gorard and Taylor (2004) pointed out that the choice about which research methods need to be applied in a study should be driven by the research questions and the research context, rather than the preferences of the researcher. The three most common purposes for research are exploration, description, and explanation (Babbie, 2016). The aim of this study is to investigate if the current practices of the CLIL program at the focal school promote students' motivation by

evaluating the practices from the perspectives of learning environment, learner engagement, and learner identity/self. The study required me to describe what worked and what did not, as well as to find out what relationships existed and how they worked together to co-construct social reality. It also required me to capture individual students' perceptions of the learning process and to interpret the intersubjectivities in a dynamic learning environment. It is critical to discover the pattern of interactions among the students and teachers, as well as the learning environment and context. The nature of the knowledge sought after in this research inquiry pointed to a qualitative and quantitative mixed-methods design (Morse & Cheek, 2014) as the best fit for the study. The main research tools used are qualitative with a supplemental quantitative research tool to explore, describe, and explain the research questions. Based on the information required by the research questions, the research instruments to be used to collect the data are student and teacher surveys, student focus groups, teacher semi-structured interview, and journey mapping.

Sampling Strategy

Given that MSA is a small high school, I included all MSA learners and the CLIL program teachers as the informants, a total of 111 students and 30 teachers. To realize internal and external validity to the maximum extent, I used non-probability voluntary sampling to collect data for student surveys, teacher surveys, and semi-structured teacher interviews. I used purposeful stratified random sampling to collect data for student journey mapping and student focus groups. The student survey was sent to all 111 students from G9-12. There were 57 voluntary responses to the survey. Specifically, a total of 27 students from G9, 10 students from G10, 14 students from G11 and 6 students from G12 responded to the survey. The response rate was 51% for all students. The teacher's survey was sent to all 30 teachers. There were 16 voluntary responses to the survey, and the response rate was 53% for all teachers. In the survey,

four teachers volunteered to participate in a follow-up interview. The four teachers were then contacted and arranged to be interviewed after the survey.

For the journey mapping activity, the contact point of the school helped me to recruit the student participants. The recruitment criteria were that there should be at least one student from each grade level and that the students' English proficiency level should vary. In the end, three 9th-graders, one 10th-grader, three 11th-graders, and two 12th-graders voluntarily participated in the journey mapping activity. Based on the availability, G9/12 students were put in one group and G10/11 students were put in another group. The same group of students who participated in the journey mapping activity continued to participate in the focus group, except for one G9 participant who did not finish the journey mapping nor return for the focus group interview.

Table 5 *Summary of the Sampling Strategies*

Data Collection Method	Study Population	Sampling Technique	Sample Size	Description of Sampling
Student Survey	111 Students	Non-Probability Voluntary Sampling	57	A total of 57 voluntary responses from G9-12 students. The response rate is 51%.
Teacher Survey	30 Faculty		16	A total of 16 voluntary responses. The response rate is 53%.
Teacher Interview	30 Faculty		4	A total of 4 voluntary responses.
Student Journey Mapping	111 Students	Purposeful Stratified Random Sampling	9	Three 9th graders, one 10th graders, three 11th graders, and two 12th graders voluntarily participators. Based on the availability, G9/12 students were in one group; G10/11 students were in another group.
Student Focus Group	111 Students		8	The same group of students, who participated in the Journey Mapping activity, continued to participate in the Focus Group, except one G9 participant, who didn't finish the Journey Mapping nor return for the focus group interview.

Data Collection

Understanding motivation is challenging, and capturing relationships between motivation and variables during the teaching and learning processes makes it even more complicated. To obtain a clear picture of the complexities of motivation, I designed a holistic data collection process. The purpose of developing a conceptual framework is to determine what questions

should be asked, what research instruments should be employed, and to give a direction for the design of questionnaires, interview questions, and other research activities. The researcher always needs to make sure that the research instruments are aligned with the conceptual framework; this way, the research questions can be well addressed.

Quantitative Survey Data Collection and Analysis

Data Collection for Surveys. Data collection began with the online survey to the teachers and the students. The teachers who are teaching their subjects in English and all students at MSA received the online survey form generated with Microsoft Forms. The school helped to distribute the survey links through their administration account. Two weeks were given for the participants to finish the survey. At the end of the first week, an email was sent out to remind people to complete the survey. One day before the deadline, a final reminder was sent out. The teachers' survey was adapted from The Thoughtful Classroom Teacher Effective Framework, which provides the teachers with opportunities to self-assess on how well they create a motivational learning environment for English acquisition (Appendix C). Table 6 outlines the alignment between the nine dimensions of the Thoughtful Classroom and the three domains of the PMM conceptual framework.

Table 6 *Alignment between PMM and the Thoughtful Classroom Practices*

Process Motivation Model		9 Dimensions of a Thoughtful Classroom
Domain 1	Learning Environment	• CLIL pedagogy (organization, procedures) • Deepening learning • Positive relationships and a culture of thinking
Domain 2	Learner Engagement	• Positive attitude • Applying learning • Engagement and enjoyment
Domain 3	Learner Identity/Self	• Learning goals and strategies • Helping students reflect on learning • Celebrating learning

The student survey (Appendix D) comprises two parts. Part I includes a general information section and a section adapted from Bower's (2013) Learning Through French Student's Questionnaire, which has nine questions about students' perceptions towards English learning motivation, engagement, achievement, and self-identity. Part II was adapted from the Thoughtful Classroom Teacher Effective Framework. It still comprises three domains and the same set of questions in each domain, except that I reworded the questions so that the students can answer from their perception of how well their teachers have promoted and sustained the students' motivation to learn English. One benefit of using the same questionnaire for both the teachers and the students is that it allowed me to align their responses and find the discrepancies between the two groups' perceptions towards the same teaching practices.

Survey Data Analysis. Most survey questions are Likert scale questions with five points. However, a few open-ended questions were included, such as, "How many years have you been attending MSA?" and "Can you think of times when you speak in English outside of the class hours? Please give examples in the spaces below." There were also ranking questions, such as, "What are the top three skills do you think you developed in the English-taught classes?" There were also the multiple-choice questions, "Can you think of anything you dislike about it? Choose those that are true for you." Including these types of free-response questions in the online survey allowed me to better understand the general perception of the program and provide me with a guidance for the interviews and focus group discussion. First, I used the built-in data analysis tools in Microsoft Forms and got a summary of responses for each question. The survey summary provided an overview of the learners' English learning profile at MSA and outlined the students' perceptions regarding the critical aspects of the CLIL teaching and learning process. Except for a few open-ended and multiple-choice questions, the survey questions are Likert

scale. Likert scale survey questions allow me to measure the participant's attitudes and understand how much the students agree or disagree with a particular statement or how the teachers self-rate their teaching practices from "N/A" to "Expert". The goal of the survey analysis is to make sense of the numbers given by the participants, find patterns from this sensemaking process, and answer the research questions. All survey data were transferred to Excel. I will explain how I analyzed both the student survey and the teacher survey in Excel.

   Student Survey Likert Scale Analysis in Excel. In Excel, I summed the ranks for each response to the questions and then divided the sum by the number of participants. The numbers were the mean of all participants' perceptions of that question. Comparing and contrasting these numbers helped me to identify the areas where the school has been doing well and the areas that need improvement. This is important because it also helped me to find patterns and understand students' English learning experience at MSA. Except for the questions regarding English skills, level of enjoyment in learning English, the perception of the importance of English learning, and the effort level in Part I, which are 4-point Likert scales, the questions are asked on a 5-point Likert scale.

   Below is an example of how I used Excel to conduct the quantitative analysis. Table 7 is a snapshot of the raw data of students' self-rating of their English proficiency level in the following categories: Listening, Speaking, Reading, and Writing. Next to the raw data, I inserted a column that recorded 1- 4 ranking numbers, which were converted from the description data. In this case, 1 is Emerging level, 2 is Developing level, 3 is Proficient level, and 4 is Advance level. I did the conversion for all the description data I collected through the survey.

Table 7 *A Snapshot of the Excel Data Analysis on Four English Skills for G10 Students*

Listening	1-4 Ranking	Speaking	1-4 Ranking	Reading	1-4 Ranking	Writing	1-4 Ranking
Proficient	3	Proficient	3	Proficient	3	Proficient	3
Developing	2	Emerging	1	Emerging	1	Emerging	1
Advance	4	Proficient	3	Advance	4	Proficient	3
Proficient	3	Proficient	3	Proficient	3	Proficient	3
Proficient	3	Developing	2	Proficient	3	Proficient	3
Proficient	3	Proficient	3	Proficient	3	Proficient	3
Proficient	3	Developing	2	Proficient	3	Developing	2
Proficient	3	Advance	4	Advance	4	Proficient	3
Developing	2	Developing	2	Developing	2	Developing	2

I then summed all the converted numbers and divided the sum by the number of responses; the mean I got is displayed in Table 8 below. The overall English proficiency level was an average of the four skills.

Table 8 *A Summary of English Proficiency Level for G10 Students*

Listening	Speaking	Reading	Writing	English Proficiency Level
2.54	2.32	2.28	2.14	2.33

To understand how the English Proficiency Level progressed across the grade levels, I calculated the overall English proficiency level for each grade and then compared each grade's number. The result is displayed below.

Graph 1 *Student Self-rated English Proficiency Level across the Grade Levels*
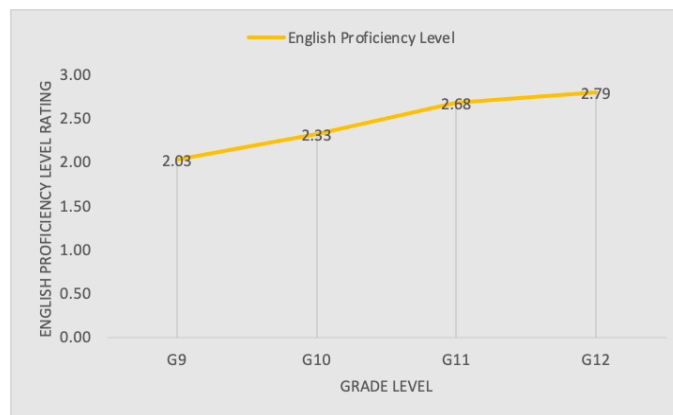
Teacher Survey Likert Scale Analysis in Excel. The same analysis method applied to the

teacher survey data in Excel. The questions asked in the teacher survey are the same as those in

the student survey, except for one question, which asks the teachers how often they put on the

hat of a language teacher. In this survey, the teachers are asked to self-rate their teaching practice

on its ability to construct a motivational learning environment from "N/A" (meaning not doing it

at all or not even aware of it) to "Expert." The table below summarizes the questions I asked in

the teacher's survey.

Table 9 *Summary of the Number of Questions Asked for Each Domain.*

Process Motivation Model Dimensions	Sub-buckets	# Of questions
Learning Environment	Teacher Specific	10
	Course Specific	8
	Group Specific	4
Learner Engagement	Helping Students Increase the Perceived Value of Learning Activity	2
	Helping to Promote Students' Positive Perceptions towards English Learning	2
	Helping to Increase Students' Engagement in Learning Task	4
Learner Identity/Self	Enhancing Students' Self-Awareness as an English Learner and User	3
	Help Students Develop Mastery Orientation	3

Following the same analytic process that I used to analyze the student survey data, I

converted the descriptive data to a numerical ranking. Then I calculated the mean response to

each question. Comparing and contrasting these numbers helped me to identify the areas where

the school has been doing well and the areas that need improvement. This analysis is important

to do as it also helped me to find patterns and understand teachers' CLIL teaching pedagogy at MSA. Through this data analysis method, I was able to get evidence about teachers' level of confidence in their CLIL pedagogy. That includes the teachers' general perception towards their role as a language teacher, how confident they are in their ability to teach English through content, and how confident they are in their ability to create a motivational learning environment for CLIL. The graphic below is an example of using the method described above to get an overview of teachers' self-rating on their teaching practice in three dimensions of the Process Motivation Model, as well as a comparison with the students' perceptions on their teaching practice in three dimensions.

Graph 2 *Teaches Self-rating vs. Students Rating on Teaching Practices of the Three Dimensions of the Process Motivation Model*
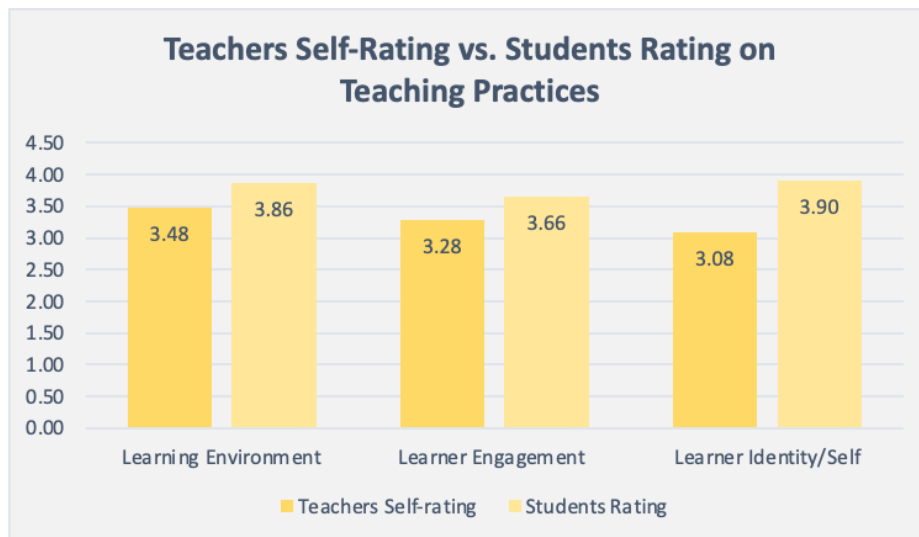
Strengths and Limitations of Survey. The advantages of using an online survey include the survey being easily distributed, easily quantifiable, and easy to interpret. It also allows the subject to respond in a degree of agreement, and it is straightforward to code when analyzing data. It is easy for the participants to respond as well, since they are not required to articulate the

topics. However, one of the limitations of the survey is that it does not give you in-depth understanding for each response. In addition, it is unidimensional, so the answers provided are not much for me to gain interpretations from.

Qualitative Data Collection and Analysis

Data Collection for Interviews and Focus Group (Figgou & Pavlopoulos, 2015). The recruitment of the participants for the teacher interview was done on a voluntary basis. One question in the teacher's survey asked if they would like to participate in a follow-up interview. Four teachers indicated that they were interested in participating. Therefore, a one-on-one interview with each teacher was arranged. I conducted a semi-structured interview (Appendix E) with each teacher, and each interview lasted about an hour. All interviews were recorded. The semi-structured interview questions were adapted from Bower's (2013) Learning through French Staff Interview Questions. It included four sections: program organization, learning environment, learner engagement, and learner identity/self. The interview also included questions related to the program's expectations, misconceptions of CLIL, the teacher's dilemmas, and the teacher's knowledge about and experience with CLIL. These aspects emerged in the process of interviews.

The recruitment of the student journey mapping and focus group participants (Appendix F) was also done on a voluntary basis. However, to get a complete picture of the student's learning experience with CLIL, we purposively reached out to each grade level to find students with different English language proficiency levels. In the end, we successfully recruited three G9, one G10, three G11, and two G12 students to participate in the journey mapping activity and focus group discussion. Given that the participants have the right to withdraw from the research activities anytime, one G9 student didn't complete the journey mapping nor return for the focus group. Based on their availability, four students from G9 and G12 were put into one group, and

four students from G10 and G11 were put into another group. The G9/12 group did the journey

mapping individually, while the G10/11 group did it as a group. The journey mapping took one

hour, and then each group continued the focus group discussion, which also took one hour.

During the journey mapping activities, the students were required to visually demonstrate

their experience with CLIL at MSA by identifying journey stages and touchpoints under guiding

questions (Appendix G), such as, "What expectations do you have?", "What were you thinking?

What questions might you have?", and "What were you feeling? Doubt, fear, excitement,

confusion, anxiety, frustration…?" The journey mapping was a fun and thought-provoking data

collection activity. It provided a creative way for the participants to voice their opinions,

encouraging deep thinking and reflection about the related questions. The same group of

participants in journey mapping continued on to participate in the focus group. Questions from

the student survey and journey mapping activities initiated the conversation. The follow-up

questions also covered the program's organization, learning environment, learner engagement,

and learner identity/self.

Qualitative Data Analysis. I used a hybrid approach of deductive and inductive thematic

analysis (Swain, 2018) for the qualitative data analysis. On the one hand, based on the research

aims, research questions, the theories of CLIL, and the pedagogical practice of the Process

Motivation Model, I produced a set of *a priori* codes (Crabtree & Miller, 1999). I focused on

things such as motivational learning environment, change of motivation, effort, type of

motivation, English instructional time, and balance between content and language. Then I

identified the codes that would go to any *a priori* codes. This is called a deductive thematic

analysis, or a top-down data analysis process.

On the other hand, an inductive thematic analysis was taking place concurrently. A set of posterior codes (Boyatzis, 1998) was derived from the generated data. Those codes formed new themes that I identified from the analysis. The criterion was that if any themes were repetitively mentioned twice and supported by a different participant either with or without being explicitly asked by me, I would find connections between them and form the new themes. It took six stages to complete the qualitative analysis (Swain, 2018). The approach was adapted from Swain's (2018) hybrid approach of thematic analysis.

Stage 1: Transcribe All Raw Data and Record Them

I transcribed five journey maps, two student focus group discussions (eight participants total), and four teachers' interviews. Given that the language used in these research activities was Chinese, I also translated them into English. I ensured consistency in translating the vocabulary, terms, and phases. I recorded the transcripts into Microsoft Word and organized them into tables.

Stage 2: Begin to Familiarize Myself with the Data, both Quantitative and Qualitative

When I analyzed the survey data, I created a table to record the percentages of each response for both the student and the teacher survey. I also colored the items that were worth further investigating. Table 10 below is a snapshot of my work. Items in red need further investigation, those in yellow need attention, and those in green are items that both the students and the teachers agreed are going well at MSA. I also got familiar with the qualitative data by going them over several times.

Table 10 *A Snapshot of Recording and Color-coding the Comparisons between the Student Survey and the Teacher Survey*

	projects that capture students' interests and have relevance in the world	Neutral	29.8	26.7	Developing
		Agree	43.9	13.3	Proficient
		Strongly agree	17.5	0	Expert
3	Use key "motivational levers"	Strongly disagree	1.8	0	N/A
		Disagree	1.8	12.5	Novice
		Neutral	26.3	50	Developing
		Agree	57.9	37.5	Proficient
		Strongly agree	12.3	0	Expert
4	Employ a wide variety of tools and strategies to keep their teaching fresh and keep students excited and on-task	Strongly disagree	0	0	N/A
		Disagree	5.5	6.3	Novice
		Neutral	29.1	43.8	Developing
		Agree	52.7	43.8	Proficient
		Strongly agree	12.7	6.3	Expert
	Enhancing Students' Self-Awareness as an English Learner and User	Likert Scale	Student Survey (%)	Teacher Self-rate (%)	Likert Scale
1	Tap into the power of "selfhood"	Strongly disagree	0	0	N/A
		Disagree	1.8	0	Novice
		Neutral	23.2	43.8	Developing
		Agree	53.6	50	Proficient
		Strongly agree	21.4	6.3	Expert
2	Work with the students to help them discover the English learning strategies that work for them	Strongly disagree	0	6.3	N/A
		Disagree	10.7	31.3	Novice
		Neutral	23.2	37.5	Developing
		Agree	50	18.8	Proficient
		Strongly agree	16.1	6.3	Expert
3	Help students reflect on their own learning process to identify what they did	Strongly disagree	0	0	N/A
		Disagree	8.9	6.3	Novice
		Neutral	23.2	62.5	Developing
		Agree	50	18.8	Proficient

Stage 3: Create A Priori Codes + A Posteriori Codes (along the way) Table

Based on prior conceptualizations, I created a set of *a priori* codes to encode the raw data during the deductive thematic analysis process. Meanwhile, I set the table to record the *a priori* codes and generate the posterior codes as I went along the coding process (Table 11).

Table 11 *An Example of Coding Table*

A Priori Codes	Responses			A Posteriori Codes (in Blue)
	Journey Mapping	Teachers	Students	

Learning Environment: Attending errors, descriptive feedback, scaffolding, unpacking standards, content objectives, language objectives, sources of information, summative assessments, inclusive class ethos, clear expectations				Anxiety, teacher's English proficiency level, teacher's role as a language teacher, a balance between content and language, academic language, teacher's knowledge and skills about CLIL teaching
Learner Engagement: Rationale behind learning activity, understand student's motivation, help students understand the importance of English, incorporating student's interests, motivational levers				Project-based learning, inside and outside of class learning, during period of struggling,
Learner Identity/Self: Power of "selfhood", English learning strategies, reflect on learning process, beliefs in English learning, personal English learning goals, celebration on progress				The school's coaching system, reach out for help, self-awareness, English learner's understanding about the English acquisition
CLIL program aspects: English instructional time				CLIL program aspects: Program expectations, program standards, teachers' needs, students' needs, G10/12 defenses (milestone)
Others: Understanding of the language learning motivation				Misconceptions about the CLIL teaching, the school's culture and mindset, parents and family engagement,

Stage 4: Continue to Add and Summarize Information from Transcripts onto the Table

As I analyzed the data, I continually added and sorted information from transcriptions to Table 11. The criterion was that if any themes were repetitively mentioned twice and supported by a different participant either with or without being explicitly asked by me, I would add this response to the table.

Stage 5: Cut and Paste Excerpts That is Most Relevant to the Codes

As I went over the transcripts, I selected the most relevant responses as solid evidence of my findings. Then, I cut and pasted the excerpts of these responses to a separate Microsoft Word document. Usually, one excerpt or sentence could contain more than one code. I would bold the different codes in the excerpt for counting purposes.

Stage 6: Merge or Collapse the A Priori and A Posterior Codes into Themes (Fereday & Muir-Cochrane, 2006)

It was then time to merge or collapse all the codes that I identified through the process of coding and encoding all raw data into themes. I identified a total of 45 codes. After carefully sorting, connecting, and forming patterns, I merged these 45 codes into eight themes (Fereday & Muir-Cochrane, 2006). Given that the data was collected and generated from both the students and the teachers, the eight themes were evenly distributed between these two groups. They are displayed in Table 12.

Table 12 *A Summary of Themes Emerged from the Qualitative Coding*

Student's Experience	Teacher's Experience
Themes	
Overall experience	Overall experience
What works	Knowledge and skills with the CLIL pedagogy

What doesn't work	Understanding about the CLIL program
How to support the students	How to support the teachers

Strengths and Limitations of Qualitative Research. Qualitative research is a flexible approach that provides many options of how to collect and analyze data. It also provides room for adaptation and change during the process. It helps to capture changing attitudes and dynamics within a target group. The nature of this method allowed me to dig deep and capture insightful and thorough responses to the questions I was interested in. The first limitation of qualitative research is the sample size. For example, I could not conduct focus groups with all students as I would otherwise have liked. Since I could not do the qualitative research with the whole population, the sample selection is biased. To minimize this, I randomly selected participants when possible. For example, for the journey mapping activity, I randomly selected the student focus groups from each grade while maintaining an even distribution of the students' English language proficiency level. Despite this, the responses in a group setting might be insincere. Because the participant cannot participate in a private setting, they might feel less comfortable to express themselves freely. I noticed that one G9 student, who had been struggling with the CLIL program, was reticent during the focus group discussion. My questions, tone, facial expression, and body language could impact how participants respond during an interview and a focus group.

Linking Quantitative Data and Qualitative Data

It is worth noting that the two types of data analysis (i.e., quantitative and qualitative) did not occur in sequential order. For example, after I got some general ideas about the student's perceptions of their English proficiency level, a basic understanding of the different aspects of

their learning with the CLIL program, and a summary of their rating of their teachers' CLIL

pedagogy from the student survey, I did not continue with the survey data analysis; instead, I

went to the qualitative data analysis. When the codes about "progressed in the English

proficiency level as the grade increases" appeared in most students' responses, it urged me to find

out if the quantitative data supported this statement. The preliminary analysis of this item was

about the overall English proficiency level of the MSA students. To answer this question, I

sorted the data by grades and proved a growth in the English proficiency level from G9 to G12

(Table 7; Table 8; Graphic 1). Such cross-referencing between the quantitative and the

qualitative data happened over the entire data analysis process.

Findings

Upon completing data analysis, I was able to identify eight themes for all codes from the

qualitative data analysis. During the process, I was also able to cross-reference the eight themes

with the teacher survey data and the student survey data. Therefore, I was confident in taking a

step forward with the eight themes and identifying the findings for the two research questions.

Findings for the RQ1: What are the students' experiences in the CLIL program?

Finding #1: Overall, the students' experience in the CLIL program is positive. However,

G9's perception has a lower level of positivity than other grades. This finding was evidenced

by the data from journey mapping, the student survey, and the focus group. As described earlier

in the research design, journey mapping was done in two groups; one worked as a group and

mapped their experience as a group; the members of the other group worked individually. The

image in Appendix H is the group journey mapping. From the image, you can see that the group

illustrates an increasingly positive outlook towards their English learning experience in the CLIL

program by drawing a growing tree. The words they used to describe the experience when they joined the school (at the bottom of the tree) were "doubting the meaning for study," "no positive correlation between the effort they put in and the improvement in grades," and "peer pressure". The motives that kept them moving forward included "got enlightened" (intrinsic), "found the meaning of life" (attainment), "revalue GPA" (utility), "fun classes" (attainment), and "get over it" (attainment). Their journey at MSA is interpreted as generally positive, since they drew a chiming bird and a shiny sun at the top, which metaphorized their bright future.

The three images in Appendix I show the journey maps done by two 9th graders and two 12th graders individually. From the images, you can see that everyone illustrates their journey maps differently (Image 1; Image 2; Image 3). However, despite the up and down moments, the overall movements of the maps are up trending. At each touchpoint, they gave reasons for the changes, and at the end of the map, they used positive words to summarize their learning experiences at MSA, such as "getting accepted by the college", or "passing the defense".

An image done by a 9th grader was the only negative illustration of the CLIL learning experience (Image 4). He used many negative words to describe his experience in English classes, subjects taught in English classes, and the English tutoring class. Finally, he used "wanted to quit" to conclude every class experience at the end. I felt very grateful that this student participated in the journey mapping activity as he was reticent in the focus group discussion.

The student survey data also indicates that 9th grade students rate their English proficiency levels and in-class effort levels lower than other grades. Overall, the survey data demonstrate that students in higher grades reported higher English proficiency and class effort levels. For Chinese English learners, improving their English proficiency level is a strong

indicator of a positive learning experience (Yihong et al., 2007). An increase in self-rated

English proficiency level from G9 to G12 demonstrates the student's confidence in the program's

quality. Yihong's research (2007) shows a negative correlation between the degree of interest in

English learning and the grade level from junior high school to senior high school. However, the

MSA CLIL program shows a reversed trend compared to the other programs studied in Yihong's

research (see Graph 3; Graph 4).

Graph 3 *Student Self-rate on English Proficiency Level from G9-G12*
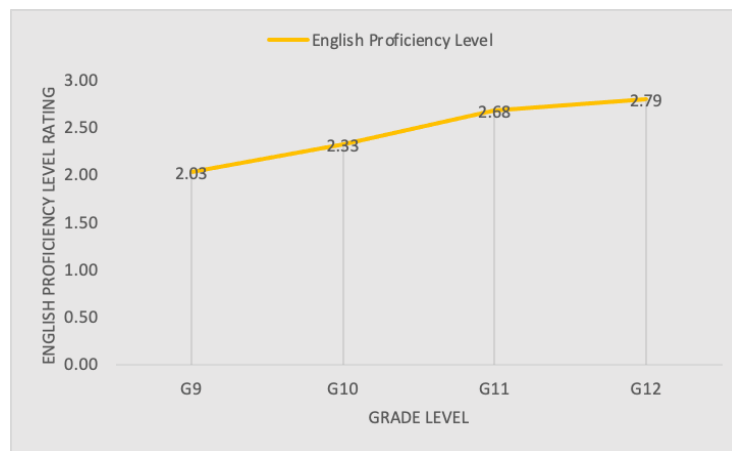
Graph 4 *Student Self-rate on In Class Effort Level from G9-G12*

Evidence also emerged from the student focus group to support the first finding. In addition, many quotes speak positively about the program. The analysis of the focus group data resulted in four main themes (Please find more quotes in Appendix J).

1. **Students self-reported that they have progressed in English with the CLIL program since they joined the program**. For example, one G12 student noted that, "I made huge progress in English over the course of MSA learning. I think MSA has improved my English proficiency level, including speaking, listening, reading, and writing." One G9 student shared that, "When I joined MSA, I had a feeble foundation in English. After a year of interactions with the teachers and my classmates in English, I noticed my progress in English skills."

2. **Students reported improvements in academic English through research, reading, and writing subject reports**. For example, one G12 student noted that, "…my academic English has improved through various subject reports; given that we need to research in English, my reading skills have also improved."

3. **Students reported that summative assessments are helpful to the students' growth and their English improvement**. For example, one G11 student commented that, "Summative assessments at MSA required me to express myself in English. It could be challenging and stressful at times, but in the end, it helped me grow and get better in English."

4. **Students noted an increase in self-awareness throughout the learning process, which helped students find the purpose of education**. For example, one G11 student shared that, "It was my parents' decision to join MSA. In my previous school,

I had no self-awareness. I started to explore who I am and what I want to become

after joining MSA. Now I have a direction of my effort."

Finding #2: Students identified their three favorite aspects of the CLIL program and their three most improved skills throughout the program. The three favorite aspects are: learning more about different cultures, more chances to use English in class, and having fun. The most improved skills throughout the program are research, listening and writing, and presentation skills. This finding is evidenced by the student survey.

Graph 5 *Three Favorite Aspects of the CLIL Program Rated by Students*
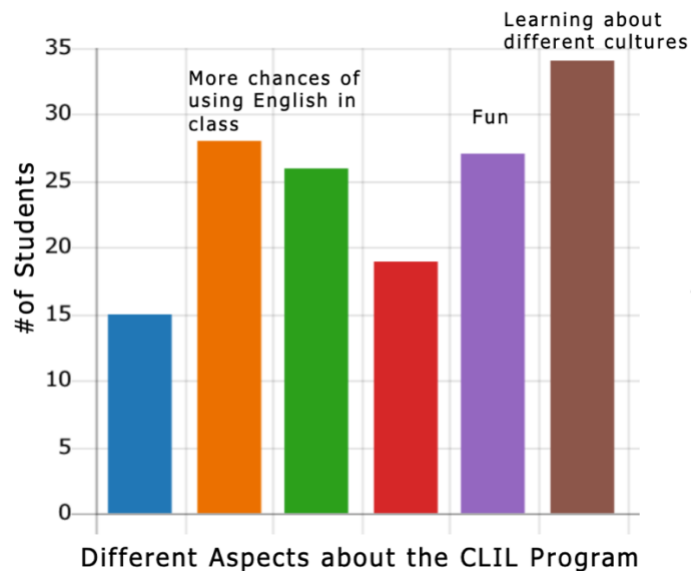
This finding is also supported by the focus group data. One G9 student mentioned that, "Not every teacher would teach in English, but all reading and learning materials are presented in English. And also, many activities require using English to present and answer questions. So we got to use more English than the traditional educational program."

Graphic 6 shows the survey result of the most improved skills throughout the program. Evidence found from the focus groups also support this conclusion. For example, one G12 student reported that, "Almost every class has at least one class presentation, and at G10 and

G12, we need to do defense as our milestone project in English. Therefore, my presentation skills have improved a lot throughout learning" (Please find more quotes in Appendix J).

Graph 6 *The Most Improved Skills Throughout the CLIL Program Rated by Students*
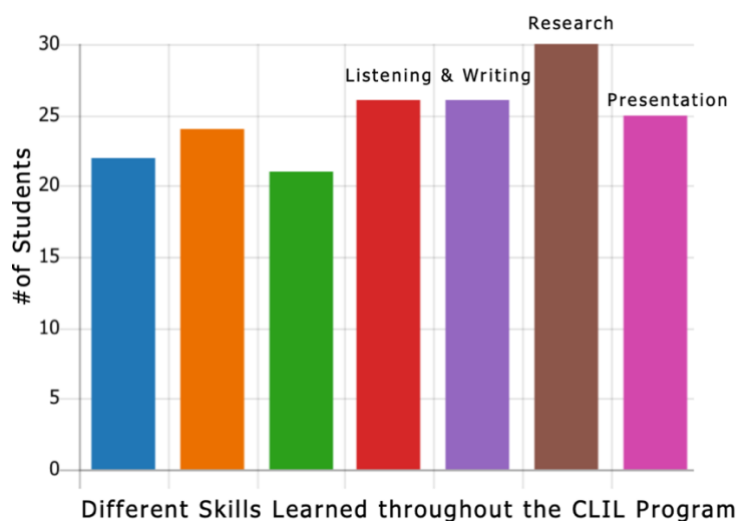
Finding #3: Students identified two areas for improvement and three aspects of the program that demotivated them. The two areas for improvement include the learner engagement and the amount of English instructional time. The students were demotivated when the difficulty level was not appropriately matched with their English proficiency level; the access to needed support for struggling learners was not available; peer pressure became one of the sources of anxiety.

The first area of improvement is that the teachers need to increase learner engagement. How did I know that teachers needed to increase learner engagement? This finding emerged from the student survey. I noticed a disparity between the level of enjoyment and the perception of the importance of learning English (see Graph 7; Graph 8). Only 10% of students thought learning English was "very enjoyable", while 72% believed it was "very important". Taken together, these data indicate that all students view learning English as important, but close to half of the students find learning English to be "not enjoyable" or "sometimes enjoyable". It is worth

questioning why the students don't enjoy learning English all the time when the majority believe that English is "fairly important" or "very important". Maybe there is something that the teachers could do better.

Graph 7 *Students Perceptions toward the Level of Enjoyment in English Learning*
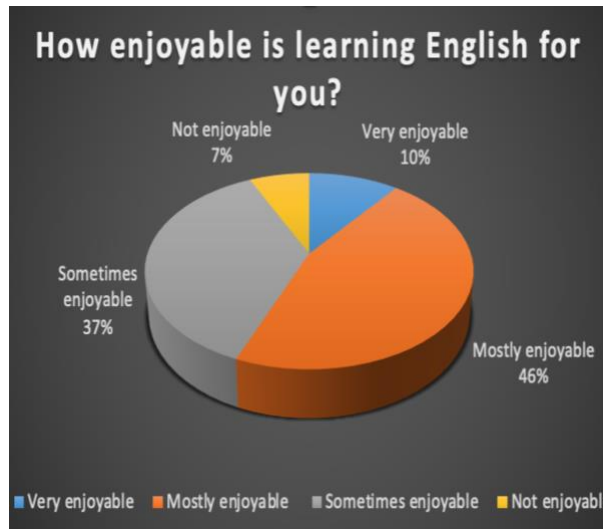
Graph 8 *Students Perceptions toward the Importance of Learning English*
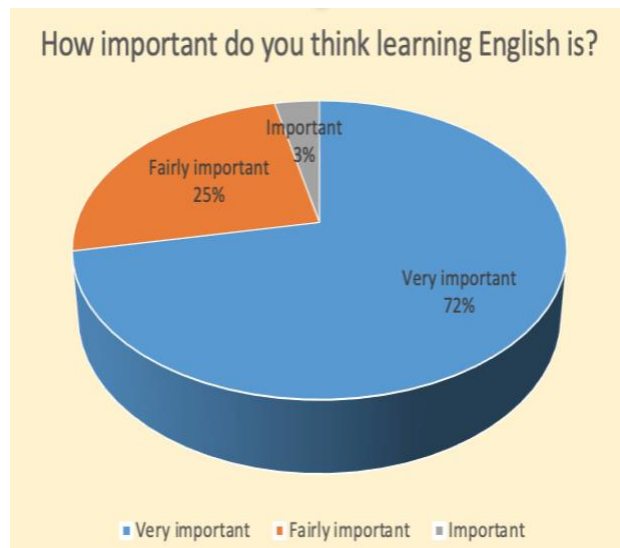
I dug a little deeper and found that the category of Learner Engagement was rated the lowest from the students' perception of the teaching practices (see Graph 9). The practices in this category mainly focus on strategies to keep the students engaged. Therefore, increasing learner engagement is the key area of improvement. According to research (Yihong et al., 2007), there is a positive correlation between learner engagement and the degree of enjoyment in learning.

Graph 9 *Students Perception toward Teaching Practices*
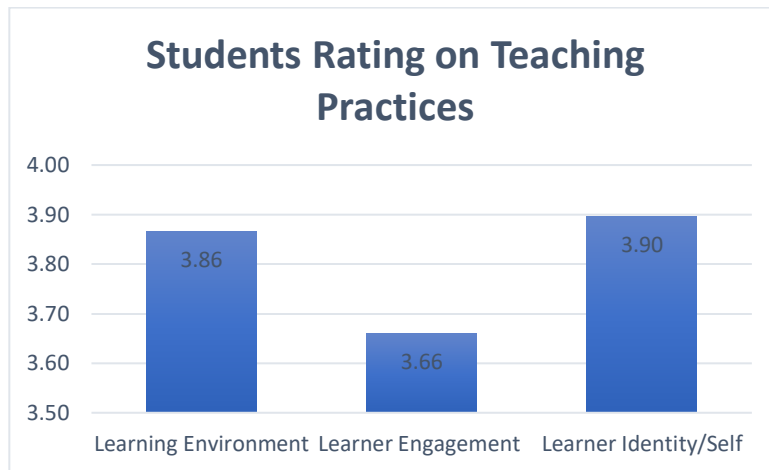
The second key area for improvement is to increase the English instructional time, as shown in this survey data (see Graph 10).

Graph 10 *Students Perceptions toward the Instructional Time in English*
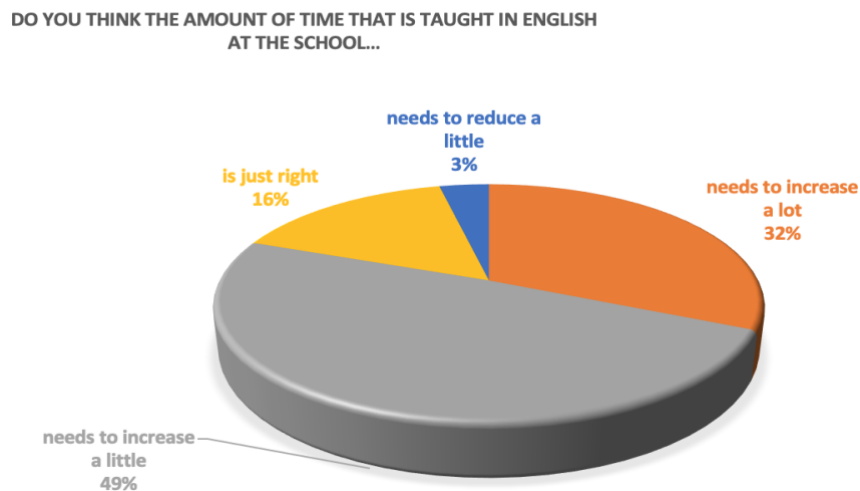
Graph 11 below shows the top three factors that demotivated the students' learning; the top demotivation factor is "when the student feels it is too hard." The data was from the student survey.

Graph 11 *The Top 3 Ranked Factors about English Learning at MSA that Demotivated the Students*
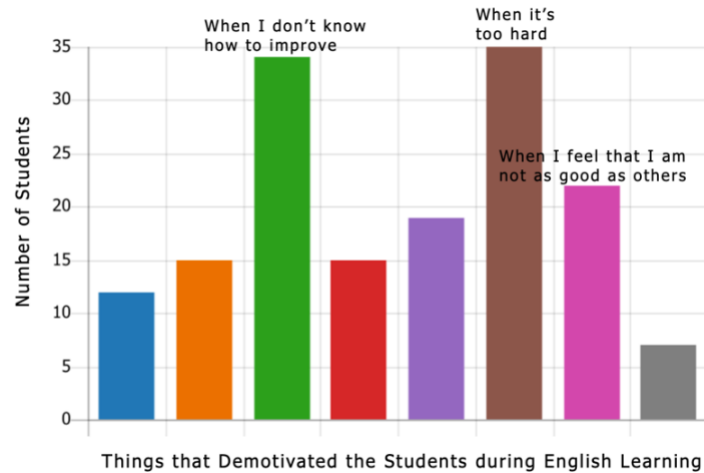
Some quotes from the focus group discussions also indicate what factors demotivated students (see Graph 11). For example, one G12 student noted, "It was depressing if you saw your peers make progress, but you could not catch up." Likewise, one G9 student commented, "It is frustrating that I don't know how to improve. I tried, but it seems not working" (Please find more quotes in Appendix J).

Findings for the RQ2: What are the teachers' experiences in the CLIL program?

Finding #4: Overall, teachers found teaching in the CLIL program challenging. They are not confident that they possess the necessary skill sets to teach the CLIL classes effectively. Specifically, teachers reported a lack of the necessary knowledge and skills to teach English through content learning. Teachers also reported needing more support to help the struggling

students. Some teachers found that their English proficiency level was not sufficient to teach the

content in English.

Evidence about this finding can be found in the teacher interview data. For example, one

teacher noted, "…I was struggling with the CLIL teaching…," and another teacher stated

that, "We found some of the newly enrolled students have been really struggling with the progra

m, and we don't know how to help them" (Please find more quotes in Appendix J). The

comparison between the teachers' self-rating on their CLIL teaching practices and the students'

rating on their teacher's CLIL teaching practices (see Graph 12) demonstrates that the teachers

are much less confident about their teaching practices than their students perceive.

Graph 12 *Teaches Self-rating vs. Students Rating on Teaching Practices of the Three Dimensions of the Process Motivation Model*
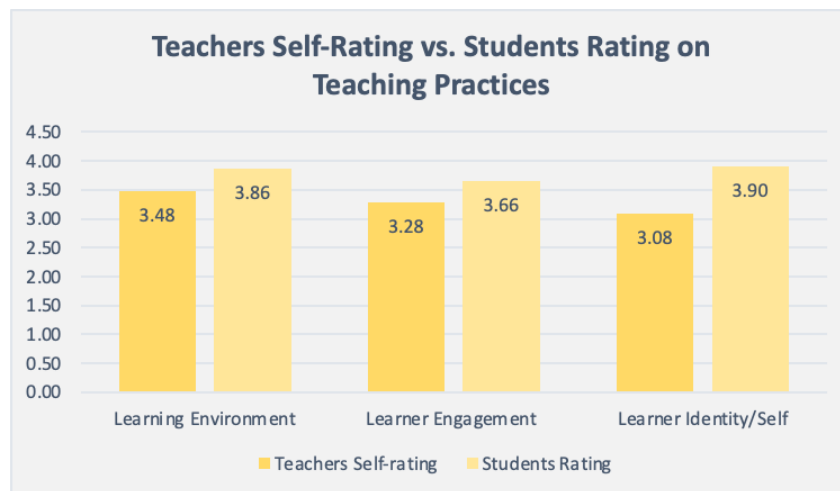
Finding #5: Six common misconceptions about CLIL teaching were identified among the MSA faculty.

The teacher interview data illuminated six misconceptions related to teaching English in the

CLIL program. They include:

1. **English in the CLIL program is an "abstract language" rather than an "additive language."** The interviewed teachers shared that a common concern among faculty is that teaching English happens at the expense of content learning and Chinese language development. For example, one teacher noted that, "I found sometimes the students were not able to explain the subject concepts well in both Chinese and English."

2. **Content learning is more important than language learning.** The interviewed teachers confirmed that there is a widely accepted belief among faculty that content coverage is their teaching priority. For example, one teacher shared "As a new teacher, I often reached out to the experienced teachers in the department for help when I am struggling with the CLIL teaching. However, the "tips" I got were: 1. content coverage is the most important task... …"

3. **Teaching English is the English subject teachers' job.** The interviewed teachers reported that a common understanding among faculty is that the English subject teachers take the full responsibility for students' English learning. For example, the same teacher who asked for tips (in the second misconception), shared that the second tip was "…leave the English learning to the English subject teacher. It is their job." Another teacher also confirmed that "All my colleagues in my department believe that they are hired to teach the subject, not English."

4. **Teaching English vocabulary and grammar is the only thing that matters to improve students' proficiency level.** When I asked the interviewed teachers about their English teaching strategies, all of them only mentioned the strategies that help to improve English vocabulary and grammar, which they believe are essential to improve students' proficiency level.

5. **English learning only happens inside of the classroom.** The interviews with the teachers showed that the English learning at MSA has been restricted to the classroom settings.

6. **Students aren't motivated, and I cannot change that.** The interviewed teachers shared that most faculty believe that if a teacher has tried hard to motivate a student, but little progress has been made, there is little that the teacher can do about it.

Survey data also supports the statement of misconception #3. In the question of "How often the non-English subject teachers put on the language teacher's hat?", the majority of responses are "Rarely" or "Sometimes" (see Graph 13).

Graph 13 *Teachers Perceptions towards Their Role as an English Language Teacher*
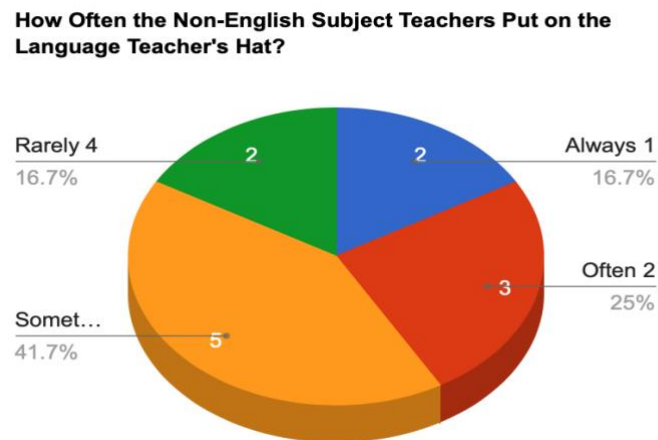
How Often the Non-English Subject Teachers Put on the Language Teacher's Hat?

Rarely 4 — 16.7% — 2
Always 1 — 16.7% — 2
Often 2 — 25% — 3
Somet… — 41.7% — 5

Finding #6: Teachers' feedback showed a desire for program improvements that focus on program expectations, language standards, a support system, and learning outside the classroom.

During the interviews, all teachers agreed that the **program expectations** hadn't been clearly communicated or fully implemented, such as how much the English instructional time should be and what the English language objectives are. Currently, the program requires each

non-English subject to have at least one unit that is taught in English and that all reading

materials and resources are presented in English. This model gives a great deal of flexibility to

the teachers to decide how much English they use in their instruction and gives the impression

that 50% English instructional time is no longer mandatory. One teacher confirmed "If English

teaching is not mandatory, most of my colleagues will choose an approach that emphasizes

content teaching."

Teachers' feedback from the interview data stated that English proficiency **standards** are

missing in the school's milestone assessments. The interviewed teachers mentioned that English

language standards are not included in the school's milestone grading rubrics (Appendix K). That

directly resulted in less emphasis on English teaching when the teachers designed their lesson. One

teacher asserted that, "If the school thinks English is important, I wish they can add the English

proficiency objectives into the school's milestone assessments' (G10 & G12) standards and

develop rubrics for it."

During the interviews, teachers also reported that the current school structure and the

coaching system do not effectively **support** students' English learning. There is no CLIL

coordinator who can oversee the CLIL curriculum development and alignment, organize CLIL

training for the teachers, or plan for teachers' horizontal and vertical collaboration. Like one

teacher commented, "We need a Curriculum Coordinator to map the courses, English

instructional time distribution across the subjects, English teaching resources, including the

English-speaking teachers." The school coaching system consists of five dimensions: learning

ability, self-development, relationship, community engagement, and family connections.

However, motivation and learning strategies for English learning are not integrated into any of

the dimensions. One teacher mentioned that "the current coaching system does not work with students to help them with their English learning."

There is no English learning program built into dorm life, community service, or extra-curricular activities. When I asked the question regarding English learning **beyond** the classroom, all interviewed teachers confirmed that no such program has been established in students' dorm life, community service, or extra-curricular activities.

<div align="center">

Recommendations

</div>

The research-informed and evidence-based recommendations should directly address the problem of practice. The problem of practice is that the current practices of the CLIL program do not meet the prescribed program expectations. The school finds that the instructional time has not been evenly distributed between the Chinese and the English languages. Teachers found that the current CLIL practices do not highly motivate and engage student learning. Both problems will have a detrimental impact on the students' English development if the situation does not improve. To address the problem of practice, I made three recommendations for the CLIL program at MSA based on the descriptive findings from this investigation.

Recommendation 1 (Short-term)

The first recommendation needs immediate attention. It is to provide the MSA faculty with a series of CLIL pedagogical trainings. These trainings will help them to understand the importance of their role as language teachers in a CLIL program and equip them with the necessary skills to perform this role effectively. Recommended training content includes Second Language Acquisition theories, what CLIL is, misconceptions about the CLIL program, balance between content and language, CLIL pedagogical approaches, and CLIL for struggling learners.

The school also needs to appoint a CLIL program coordinator to review the CLIL program's expectations, English proficiency standards, and English instructional time distribution across subjects and teachers.

Supporting Research

For CLIL Training

The teachers need to understand the difference between basic interpersonal communication skills (BICS) and cognitive-academic language proficiency (CALP) so that they can decide what learning expectations they need to set for their students and how the lessons should be planned based on the different learning expectations (Cummins, 2000). It is understandable that teachers "tend to focus on subject matter content at the expense of language teaching" (Cammarata & Tedick, 2012, p.251). Teacher recruitment also puts more weight on teaching qualification in the subject matter content than on the second language acquisition. As a result, the teaching process lacks focus on "grammatical accuracy, lexical specificity, and variety, sociolinguistically appropriation" (Cammarata & Tedick, 2012, p.253). The training needs to address five key dimensions: teachers' identity about themselves as content and language teachers, a supportive program structure that provides the teachers with the time, resources and pedagogical support, a collaboration model for the teachers to learn and grow together, an increased awareness of the balance of content and language, and a language development sequence alongside the content teaching (Cammarata & Tedick, 2012, p.257).

The support of CLIL struggling learners is also identified as an area for improvement by the teachers and the students. Fortune & Menke (2010) suggested five research-based instructional techniques to help struggling CLIL learners. More details can be found in the

literature review section. Training that incorporates the skills of identifying a struggling CLIL

learner and the five instruction techniques should be provided to the teachers.

On the Need of a CLIL Program Coordinator

Cammarata and Tedick (2012) suggest that the school's support of the program is

important. Support includes increasing training and preparation time for teachers, increasing the

opportunities for collaboration, providing mentoring and coaching opportunities, and assigning a

CLIL program coordinator to oversee the curriculum development and alignment. The appointed

program coordinator should be responsible for setting the program expectations, language

standards, and outlining the English instructional time across the program to achieve the best

learning outcomes (Goris, Denessen & Verhoeven, 2019). To achieve ideal CLIL learning

outcomes, a high level of exposure to the target language, which is over 50% of teaching time or

at least 25% of the content in an academic year, should be applied (Sabina A Nowak, n.d.; Scott

& Beadle, n.d.). The design of the lesson or unit of CLIL is content-driven with a specific

emphasis on language development alongside the content. Therefore, the learning expectations

should include curriculum area and linguistic competence (Bower, 2013).

Recommendation 2 (Medium-term)

The second recommendation is to utilize the school's coaching system to support the

students' learning by boosting the students' awareness as English learners, enhancing resilience

when encountering difficulties, increasing English learning motivation, identifying personalized

learning strategies, and helping students understand the science of learning a language. It is

feasible as the school already has a coaching system in place.

Supporting Research

Krashen (1994) asserts the importance of an "affective filter" in second language acquisition, which means that the emotions/feelings of the learner play an essential role in mediating the learning process. Research has long empirically documented that language learners' social-emotional skills are highly associated with their academic achievement (Kitsantas, Cheema, & Ware, 2011). Much evidence shows that students' self-efficacy has played an essential role in closing the academic achievement gap (Soland & Sandilos, 2021). Motivation is considered by many researchers (Anjomshoa & Sadighi, 2015; Gomleksiz, 2001; Reece & Walker, 1997; Shulman, 1986) to be an essential element for the success of the second language learning process. Under the umbrella of the Process Model of Second Language Motivation, Dörnyei (2003a) identifies three areas that matter to the motivational process: the willingness to communicate, task motivation, and the use of language learning strategies. Motivation plays a vital role in English learning for Chinese students as Chinese students consider English the most difficult subject to learn (Zhou, 2004). Therefore, the learners need to develop their self-identity as English learners, grow resilience during the learning process, and keep motivated.

Recommendation 3 (Long-term)

The third recommendation is to build a learning ecology for the CLIL program by integrating English acquisition into the dorm life, community service projects, and other extra-curricular activities. It is a long-term project as it requires input and support from all stakeholders and also needs all stakeholders to understand what it takes to build a high-quality CLIL program.

Supporting Research

Haugen (1972) described that language is not isolated from its environments. Co-constructing the language learning environment into a situated learning context for learners

should be extended from within the classroom to the learners' surroundings. Along with study,

the importance of using outside class time to acquire English has been standing out. A follow-up

literature review about learning ecology also supports this assumption. Barron (2006) asserts that

learning processes for adolescents involve not only interactions within classroom settings, but

also the activity contexts and learning resources generated and found outside the primary

learning setting. Informal or out-of-school learning opportunities are identified by adolescents

themselves, and they are interest-driven and self-sustaining learning activities (Barron, 2006).

Conclusion

Looking into the experiences of the students and the teachers, this investigation of the

CLIL program at MSA confirmed the elements and the aspects that are going well and

effectively supporting the teaching and learning process, such as the students' positive

experience in the CLIL program and project-based learning activities. The investigation also

identified the features and elements missing from the CLIL program, or the areas that could be

improved. This investigation is significant, as the recommendations will help the CLIL program

fully meet the program's expectations. In the long run, the change will improve the quality of the

CLIL program and eventually increase the school's reputation and enrollment.

After viewing the research findings, I am confident in informing the school's leadership

team that despite the downsides they identified that need to improve, the students have had

positive English learning experiences in the CLIL program. The students spoke highly of the

program's non-traditional English approach, their increased English proficiency level, and their

improved self-awareness. On the other hand, the teachers found that teaching in the CLIL

program challenging, as they felt that they are neither appropriately trained for teaching in a

CLIL program nor sufficiently supported by the structure and setting of the program.

Three recommendations are given to address the downsides found by the students and the challenges shared by the teachers. The first recommendation is to provide a series of CLIL training to the teachers and appoint a CLIL program coordinator who can strategically plan and oversee the program's operation; the second recommendation is to utilize the school's coaching system to boost the student's self-awareness, initiation, self-efficacy, and motivation; the third recommendation is to build an English learning ecology for the program so that the learners can expand their English exposure beyond the class setting.

I felt fortunate to learn about MSA and its CLIL program through this project. It is a model that has proven to be innovative in China's current education system. Its success would enlighten and inspire many Chinese educators to explore various new ways of education to meet the different needs of learners. I am confident that my recommendations will support MSA's CLIL program as they aim to continue to improve the quality of the CLIL program and support the school in sustainable growth.

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Appendix A

Moonshot Academy Future School Model

MSA Beijing Operation & Supporting Division

Info. & Tech Center	Coach Department	Head of School Office	School Operation and Supporting	Sustainable Project Path	Career Path
Campus Internet & Data Security	Academic Data & Measure	Operation and Supporting Center	Operation		
Data Analysis & Measure	Bilingual Environment Building	Crisis Management Committee	HR		
Info Flow Design & Platform Building	Leadership Development	Communication & Community Center	Finance & Accounting		
	Educator Development	International Cooperation & Exchange Center	Legal		
		Admission Office			

MSA Beijing Academic Division

Academic Affairs Office	Learning Models		Community Life		Growth Center	Function Setting	College Path	
Enrollment Management	Subject Learning	Humanity	Community Life	Extracurricular Activities	MSA Coaching System	Community Development & Character Education Center	Grade Levels	First Year
				Student Initiated Projects				
				MSA Traditional Activities				
		Mathematics	Social Experience	Educational Travel	College Prep			Second Year
				Internship				
				Community Service				
		Tech & Engineering	Family Growth	Parents Education	Psychological Development			Third Year
				Parent-Child Relationship				
		Social Science			Student Self-consistency			
		China Studies						Fourth Year
		Arts						
		HSPE						
Transcript Management	Interdisciplinary Project							
Examination & Defense	Specialized Honor Courses	Required Courses						
		Elective Courses						
Calendar Schedule								

Appendix B

Example of The MSA Mastery Transcript Consortium (MTC)
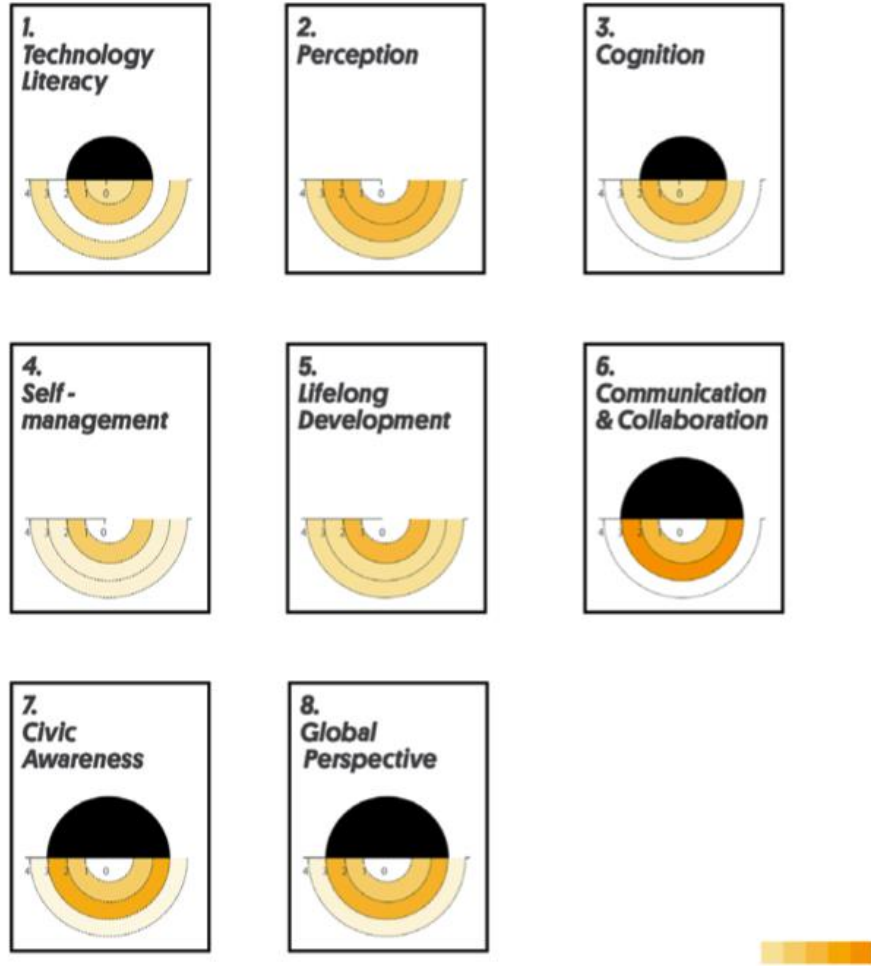
Appendix C: Teacher Survey

Teacher's Self-Assessment on Promoting Students' Motivation towards English Learning

The survey will take approximately 15-20 minutes to complete.
该调查大约需要15-20分钟才能完成。

Teacher's Self-Assessment on Promoting Students' Motivation towards English Learning in the Content and English Language Integrated Learning Class (A Process Motivation Model)

教师在"内容和英语语言融合"教学中对促进学生英语学习动力的自我评估 (过程激励模型)

* Required

1. If you would like to be invited to a follow-up interview (40- 60 minutes) on the same topic, please enter your name and your email address below. Otherwise, please enter a NO below. 如果您愿意参加有关同一主题的后续采访 (40-60分钟), 请在下面输入您的姓名和电子邮件地址。否则, 请在下面输入"否"。 *

2. If you are not an English subject teacher, please indicate how often you put on your language teacher's hat when you are teaching a course in English? 如果您不是英文老师, 请表明在用英文授课时, 您行使英语语言老师身份的频率是: *

○ Always 总是

○ Often 经常

○ Sometimes 有时候

○ Rarely 很少

○ Never 从不

○ I am an English subject teacher 我是英文科目老师

Dimension One: Learning Environment 第一维度：学习环境

Guiding question: How do you create a learning environment that enhances students' motivation towards English learning? 导向性问题：您如何创建一个可以增强学生的英语学习动机的学习环境？

Instructional Indicators 教学指标
How would you rate yourself at……在…方面，你如何评价自己？

Instructions 说明

Use the following 1-5 rating scale to respond to each of the questions. Please note, your answers should be based on your teaching experience in your "Content and English Language Integrated Learning" classes. 用下面的1-5等级回答每个问题。请注意，您的答案应基于您在"内容和英语语言融合课程中"的教学实践。

1.   Novice 新手- I do not do this in my classroom, or my use of the practice is not having positive effects on students' motivation towards English learning. 我没有在教室里这样实践，或者我的实践对学生的英语学习动机没有产生积极的影响。

2.   Developing 提升中- I do this in my classroom, but only notice positive effects on students' motivation towards English learning. 我在教室里这样实践，但是注意到我的实践只是有时候能对学生的英语学习动机产生积极的影响。

3.   Proficient 精通- I do this well and notice consistent positive effects on students' motivation towards English learning. 我在这方面做得很好，并且注意到我的实践对学生的英语学习动机产生持续积极的影响。

4.   Expert 专家- I see this as a strength of mine; I can adapt it to fit my students' needs and notice consistent and significant positive results in students' motivation towards English learning.我认为这方面是我的强项；我可以对其进行调整以适应学生的需求，并在学生的英语学习动机方面看到一致且显著的积极成果。

5.   N/A Not Applicable 不适用- This does not apply to my work in school.这条款不适用于我在学校的工作内容。

3. Teacher Specific

	Novice 新手	Developing 提升中	Proficient 精通	Expert 专家	N/A 不适用
1) Using a variety of modalities (e.g., verbal, visual, body language, realia, physical demonstration) to communicate meaning in English? 使用多种方式（例如口头，视觉，肢体语言，教具，身体演示）来用英语传达意思?	○	○	○	○	○
2) Supporting student's English growth by attending to errors in both oral and written language? 通过提醒学生口语和写作方面的错误来支持学生的英语学习?	○	○	○	○	○
3) Differentiating instruction and assessment so students of all styles and ability levels can experience the joys of success? 进行差异化教学和评估，使各种学习风格和能力水平的学生都能体验成功的乐趣?	○	○	○	○	○

/2021

	Novice 新手	Developing 提升中	Proficient 精通	Expert 专家	N/A 不适用
4) Creating opportunities and activities to assist students in noticing and producing less frequently used language in oral and written form? 创造机会和活动来协助学生在口语和写作中注意和使用低频使用的语言?	○	○	○	○	○
5) Using a variety of presentation techniques (e.g., visuals, drama, stories, use of imagery, etc.) to make lessons vivid and memorable? 使用多种演示形式（例如，视觉，戏剧，故事，图像等）使课堂生动有趣?	○	○	○	○	○
6) Using a variety of pre-reading and pre-writing activities to make language and content more accessible? 使用各种预读和预写活动来使语言和内容更容易被理解?	○	○	○	○	○

	Novice 新手	Developing 提升中	Proficient 精通	Expert 专家	N/A 不适用
7) Providing clear and descriptive feedback to help students refine their use of key skills and/or deepen their comprehension? 提供清晰和描述性的反馈意见，以帮助学生提高对关键技能的使用和/或加深理解力?	○	○	○	○	○
8) Supporting students' English learning by breaking complex information and processes into component parts? 通过把复杂信息分解成小段讲解来支持学生的英语学习?	○	○	○	○	○
9) Building in periodic review and guided practice opportunities to help students master key skills, English language and content? 建立定期复习和指导实践的机会，以帮助学生掌握关键技能，英语语言和内容?	○	○	○	○	○

	Novice 新手	Developing 提升中	Proficient 精通	Expert 专家	N/A 不适用
10) Using a variety of questions and response techniques (e.g., surveying, Think-Pair-Share, provisional writing) to check for understanding in real time? 使用各种提问和回复技巧（例如，问卷，思考-配对-分享，即兴写作）来实时检查学生对所学内容的理解?	○	○	○	○	○

4. Course Specific

	Novice 新手	Developing 提升中	Proficient 精通	Expert 专家	N/A 不适用
1) Unpacking standards and turning them into clear learning goals? 拆分课程标准并将其转变为明确的学习目标?	○	○	○	○	○
2) Specifying both content learning objectives and English language objectives for each unit. 给每个单元都明确设立内容学习目标和英语语言学习目标?	○	○	○	○	○
3) Contextualizing and organizing curriculum around thematic concept(s)? 围绕主题概念来情景化并组织课程?	○	○	○	○	○
4) Incorporating multiple sources of information, including multimedia resources, into lessons to help students acquire new knowledge? 将包括多媒体资源在内的多种信息资源纳入课程中，以帮助学生获得新知识?	○	○	○	○	○

	Novice 新手	Developing 提升中	Proficient 精通	Expert 专家	N/A 不适用
5) Using a variety of formative assessment activities to help students assess their progress toward the learning targets? 使用各种形成性评估活动来帮助学生评估他们在学习目标上的进步?	○	○	○	○	○
6) Aligning your summative assessments with learning goals? 对标总结性评估与学习目标的一致性?	○	○	○	○	○
7) Assigning purposeful and level-appropriate homework for students to practice and reinforce learning? 布置有目的的且程度适宜的作业给学生，以便练习和加强学习?	○	○	○	○	○
8) Designing units that foster higher-order thinking? 设计培养高阶思维的单元?	○	○	○	○	○

5. Group Specific

	Novice 新手	Developing 提升中	Proficient 精通	Expert 专家	N/A 不适用
1) Building a classroom community that insists on respect and mutual support for each student's learning? 建立一个学生们互相尊重和支持的教室社区?	○	○	○	○	○
2) Promoting an inclusive class ethos for students to share different problem-solving approaches and learning strategies? 促进包容性的课堂风气，让学生分享不同的解决问题的方法和学习策略?	○	○	○	○	○
3) Designing learning experiences that call for high levels of collaboration, discussion, and interaction among students? 设计学生之间可以进行高水平的协作，讨论和互动的学习体验?	○	○	○	○	○

	Novice 新手	Developing 提升中	Proficient 精通	Expert 专家	N/A 不适用
4) Communicating and consistently reinforcing clear expectations about English language use with each other in class? 交流并持续加强要求学生在课堂上使用英语的明确期望?	○	○	○	○	○

Dimension Two: Learner Engagement 第二维度：学习者参与度

Guiding question: How do you increase students' engagement in English learning? 导向性问题：您如何提升学生学习英文时的参与度？

Instructional Indicators教学指标
How would you rate yourself at......在...方面，你如何评价自己？

6. Helping Students Increase the Perceived Value of Learning Activity

	Novice 新手	Developing 提升中	Proficient 精通	Expert 专家	N/A 不适用
1) Explaining the rationale behind each learning activity and making sure students understand the value of the activity? 解释每项学习活动背后的原因，并确保学生了解该活动的价值？	○	○	○	○	○
2) Understanding why students value (intrinsic, utility, and/or attainment value) an activity and adjusting accordingly? 了解学生为什么重视一项活动的原因(内在价值，效用价值和/或获得价值), 并据此进行调整？	○	○	○	○	○

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7. Helping to Promote Students' Positive Perceptions towards English Learning

	Novice 新手	Developing 提升中	Proficient 精通	Expert 专家	N/A 不适用
1) Providing students opportunities to make relevant connections between the English learning and other disciplines? 为学生提供英语学习与其他学科之间建立相关联系的机会？	○	○	○	○	○
2) Engaging in conversations with students to help them understand the importance of English learning? 与学生进行对话以帮助他们了解英语学习的重要性？	○	○	○	○	○

Dimension Three: Learner Identities/Self 第三维度：学习者身份/自我认知

Guiding question: How do you nurture a positive relationship between the students' identity/self and their motivation towards English learning? 导向性问题: 您如何培养学生的身份/自我认知与他们学习英语动机之间的积极关系?

Instructional Indicators 教学指标
How would you rate yourself at......在...方面，你如何评价自己?

8. Helping to Increase Students' Engagement in Learning Task

	Novice 新手	Developing 提升中	Proficient 精通	Expert 专家	N/A 不适用
1) Getting to know your students and incorporating their interests, aspirations, and backgrounds into the curriculum? 了解您的学生并将他们的兴趣，志向和背景融入课程中?	○	○	○	○	○
2) Engaging students in English learning problems and projects that capture students' interests and have relevance in the world beyond the classroom? 让学生参与能够吸引学生的兴趣并与课堂外的世界息息相关的英语学习问题和项目	○	○	○	○	○
3) Using key "motivational levers" like controversy, choice, and competition to increase students' commitment to learning? 利用争议，选择和竞争等"激励手段"来增强学生的学习决心?	○	○	○	○	○

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	Novice 新手	Developing 提升中	Proficient 精通	Expert 专家	N/A 不适用
4) Employing a wide variety of tools and strategies to keep your teaching fresh and keep your students excited and on-task? 使用各种各样的工具和策略来使您的教学保持新鲜感，并让学生感到兴奋和对任务保持专注?	○	○	○	○	○

9. Enhancing Students' Self-Awareness as an English Learner and User

	Novice 新手	Developing 提升中	Proficient 精通	Expert 专家	N/A 不适用
1) Tapping into the power of "selfhood": encouraging students to pursue their own interests, make their own choices, develop their own perspectives, and express their values and dreams? 发挥"自我"的力量：鼓励学生追求自己的兴趣，做出自己的选择，发展自己的观点，表达自己的价值观和梦想？	○	○	○	○	○
2) Working with the students to help them discover the English learning strategies that work for them? 与学生一起帮助他们发现适合他们的英语学习策略？	○	○	○	○	○
3) Helping students reflect on their own learning process to identify what they did well and where they'd like to improve? 帮助学生反思自己的学习过程并确认自己的长处和需要改进的地方？	○	○	○	○	○

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10. Help Students Develop Mastery Orientation

	Novice 新手	Developing 提升中	Proficient 精通	Expert 专家	N/A 不适用
1) Helping students develop beliefs about their capability in English learning? 帮助学生建立关于他们英语学习能力的信念？	○	○	○	○	○
2) Encouraging students to establish personal English learning goals and plans for achieving them? 鼓励学生建立个人英语学习目标和实现目标的计划？	○	○	○	○	○
3) Celebrating student's progress and success for English learning? 庆祝学生在英语学习中取得的进步和成功？	○	○	○	○	○

Adapted from The Thoughtful Classroom Teacher Effectiveness Framework: Teacher Self-Assessment Guide
https://usny.nysed.gov/rttt/teachersleaders/practicerubrics/Docs/SilverStrongSelfAssessmentRubric.pdf

Appendix D: Student Survey

English Learning Motivation: Student Questionnaire

The survey will take approximately 20-30 minutes to complete.
该问卷大约需要20-30分钟才能完成。

Students' Perceptions on Motivation towards English Learning in the Content and English Language Integrated Learning Classes (A Process Motivation Model) 学生对于在"内容和英语语言融合学习"课中英语学习动力的感知 (过程激励模型)

This questionnaire is to investigate the students' English learning motivation at Moonshot Academy. Your input will be invaluable. In this regard, thank you in advance for your contribution to this research. Please note, your answers should be given based on your learning experiences in your English classes and any lessons/units that are taught in English. 此问卷是调研探月学院学生的英语学习动机。对以下问题给出你的看法对此次调研非常重要。对此，先感谢你对此次调研的贡献。请注意，答案应根据你在英语课上的学习经验以及所有以英语授课的课程/单元给出。

Part I 第一部分

1. Name 姓名

    _____

2. Grade 年级

    _____

3. Gender 性别

    ○ Female 女

    ○ Male 男

4. Are you a native English speaker? 你是英语母语者吗?

    ○ Yes 是的

    ○ No 不是

5. What is your English level in the areas listed below? 以下各项中你的英语水平是什么?

	Emerging 初始	Developing 发展	Proficient 熟练	Advance 高阶
Listening 听力	○	○	○	○
Speaking 口语	○	○	○	○
Reading 阅读	○	○	○	○
Writing 写作	○	○	○	○

6. How many years have you been attending Moonshot Academy? 你在探月几年了?

    _____

7. Whose choice was it? 来探月是谁的选择?

○ It was my choice 是我的选择

○ It was my parents' choice 是我父母的选择

○ My parents and I made this decision together 我父母和我一起做的这个决定

8. What do you like about the Content and English Language Integrated Learning program at Moonshot Academy? Choose those that are true for you: 你喜欢探月的"内容和英语语言融合学习" 项目 （即所有用英语授课的科目和单元，包括英语课）的哪一个或哪一些方面?

☐ The way you learn English 学习英文的方式

☐ Being able to use English as much as possible 可以尽可能多地使用英文

☐ Enhancing my English competencies 加强我的英文能力

☐ Getting on well with my peers in the group 跟班里的小伙伴相处得很好

☐ Fun 有趣

☐ Learning more about different cultures 学习更多不同的文化

☐ Accessing to more resources for the subject 能接触到学科的更多资源

☐ Future opportunities 未来的机会(是指未来的学习或工作机会)

☐ Attending English-speaking countries colleges (可以去上说英语的国家的大学)

☐ [   ]

Other

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9. Can you think of anything you dislike about it? Choose those that are true for you: 关于"内容和英语语言融合学习"项目，下面哪一个或者哪一些方面是你不喜欢的?

☐ When it's too hard 当学习变得太难的时候

☐ When assignments need to use too much English 当作业需要用太多英语的时候

☐ When I don't know how to improve 当我不知道怎样去提高的时候

☐ Do not understand when the teacher uses too much English to teach 当老师使用太多英文授课我听不懂的时候

☐ When everyone has high expectations of me 当每个人都对我有太高期望的时候

☐ When I do not feel supported 当我没有感觉到足够支持的时候

☐ When I feel that I am not as good as others 当我觉得不如别人的时候

☐ [   ]

Other

10. What are the top three skills do you think you developed in the English-taught classes? 下面哪三项英语技能你觉得是在用英文授课的课上(包括英语课) 提升最多的?

☐ Reading for gist 阅读要点

☐ Reading for details 阅读详细信息

☐ Speaking skills 英语口语

☐ Listening skills 英语听力

☐ Writing skills 英文写作

☐ Research skills 查找英文资料

☐ Presentation skills 英文演示

☐ [_____]

Other

11. In English taught classes, when did you usually speak English rather than Chinese? 在用英语授课的课堂上，你通常什么时候说英语而不是汉语?

[_____]

12. Can you think of times when you speak in English outside of the class hours? Please give examples in the spaces below. 你能想到在课堂外说英文的时间吗? 请举例说明。

[_____]

13. How enjoyable is learning English for you? 你有多享受学英文?

○ Very enjoyable 很享受

○ Mostly enjoyable 大多数时间觉得享受

○ Sometimes enjoyable 有时候觉得享受

○ Not enjoyable 不享受

14. How important do you think learning English is? 你认为学习英语有多重要?

○ Very important 非常重要

○ Fairly important 相当重要

○ Important 重要

○ Not important 不重要

15. How would you rate your level of effort in learning English? 如何评价你学习英语的努力程度?

	Poor Effort 不努力	Satisfactory Effort 满意的努力	Good Effort 良好的努力	Maximum Effort 最大努力
In class 课上	○	○	○	○
Outside of class 课外	○	○	○	○

16. Do you think the amount of time that is taught in English at the school 你觉得学校用英文授课的时长

○ needs to increase a lot 需要增加很多

○ needs to increase a little 需要增加一点

○ is just right 正好

○ needs to reduce a little 需要减少一点

○ needs to reduce a lot 需要减少很多

Part II Instructions 第二部分 说明

Use the following 1-5 rating scale to respond to each of the questions. Please note, your answers should be based on your learning experience in your "Content and English Language Integrated Learning" classes. 用下面的1-5等级回答每个问题。请注意，你的答案应基于你在"内容和英语语言融合"课程中的学习体验。

1. Strongly disagree 强烈反对
2. Disagree 反对
3. Neutral 中立
4. Agree 同意
5. Strongly agree 完全同意

Dimension One: Learning Environment 第一维度：学习环境

17. Teacher Specific

	Strongly disagree 强烈反对	Disagree 反对	Neutral 中立	Agree 同意	Strongly agree 完全同意
1) My teachers use a variety of modalities (e.g., verbal, visual, body language, realia, physical demonstration) to communicate meaning in English. 我的老师会使用多种方式（例如口头，视觉，肢体语言，教具，身体演示）来用英语传达意思。	○	○	○	○	○
2) My teachers support student's English growth by attending to errors in both oral and written language. 我的老师会指出口语和写作方面的错误来支持学生的英语学习。	○	○	○	○	○
3) My teachers differentiate instruction and assessment so students of all styles and ability levels can experience the joys of success. 我的老师会进行差异化教学和评估(因材施教)，这样各种学习风格和能力水平的学生都能体验成功的乐趣。	○	○	○	○	○

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	Strongly disagree 强烈反对	Disagree 反对	Neutral 中立	Agree 同意	Strongly agree 完全同意
4) My teachers create opportunities to assist students in noticing and producing less frequently used language in oral and written form. 我的老师会创造机来让学生在口语和写作中注意和使用低频词汇(即非常用词汇)。	○	○	○	○	○
5) My teachers use a variety of presentation techniques (e.g., visuals, drama, stories, use of imagery, etc.) to make lessons vivid and memorable. 我的老师会使用多种演示形式（例如，视觉，戏剧，故事，图像等）使课堂生动有趣。	○	○	○	○	○
6) My teachers use a variety of pre-reading and pre-writing activities to make language and content more accessible. 我的老师会使用各种预读和预写活动来使英语语言学习和学科内容更容易理解。	○	○	○	○	○

	Strongly disagree 强烈反对	Disagree 反对	Neutral 中立	Agree 同意	Strongly agree 完全同意
7) My teachers provide clear and descriptive feedback to help students refine their use of key skills and/or deepen their comprehension. 我的老师会提供清晰和描述性的反馈意见，以帮助学生提高对关键技能的使用和/或加深对学习内容的理解力。	○	○	○	○	○
8) My teachers support students' English learning by breaking complex information and processes into component parts. 我的老师会通过把复杂信息分解成小段讲解来支持学生的英语学习。	○	○	○	○	○
9) My teachers build in periodic review and guided practice opportunities to help students master English language and subject content. 我的老师会定期复习和指导学生练习，以帮助学生掌握英语语言和学科内容。	○	○	○	○	○

	Strongly disagree 强烈反对	Disagree 反对	Neutral 中立	Agree 同意	Strongly agree 完全同意
10) My teachers use a variety of questions and response techniques (e.g., surveying, Think-Pair-Share, provisional writing) to check for understanding in real time. 我的老师会使用各种提问和反思启发技巧（例如，问卷，思考-配对-分享，即兴写作）来实时检查学生对所学内容的理解。	○	○	○	○	○

18. Course Specific

	Strongly disagree 强烈反对	Disagree 反对	Neutral 中立	Agree 同意	Strongly agree 完全同意
1) My teachers unpack standards and turn them into clear learning goals. 我的老师会把课程标准拆分成明确的学习小目标。	○	○	○	○	○
2) My teachers specify both subject content learning objectives and English language learning objectives for each unit. 我的老师会给每个单元都明确设立科目内容学习目标和英语语言学习目标。	○	○	○	○	○
3) My teachers organize curriculum around thematic concept(s) and contextualize the teaching. 我的老师会围绕主题概念来组织课程并进行情景化教学(即对教学进行场景化使学生有代入感)。	○	○	○	○	○

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	Strongly disagree 强烈反对	Disagree 反对	Neutral 中立	Agree 同意	Strongly agree 完全同意
4) My teachers incorporate multiple sources of information, including multimedia resources, into lessons to help students acquire new knowledge. 我的老师会将多种信息资源，包括多媒体资源，纳入课程中来帮助学生获得新知识。	○	○	○	○	○
5) My teachers use a variety of formative assessment activities to help students assess their progress toward the learning goals. 我的老师会使用各种形成性评估活动(即平时成绩和反馈)来帮助学生评估他们在向学习目标前进的进度。	○	○	○	○	○
6) My teachers align your summative assessments with learning goals. 我的老师会确保总结性评估(期末考试和反馈)与学习目标的一致性。	○	○	○	○	○

	Strongly disagree 强烈反对	Disagree 反对	Neutral 中立	Agree 同意	Strongly agree 完全同意
7) My teachers assign purposeful and level-appropriate homework for students to practice and reinforce learning. 我的老师会布置有目的且程度适宜的作业给学生，以便练习和加强学习。	○	○	○	○	○
8) My teachers design units that foster higher-order thinking. 我的老师会设计培养高阶思维的单元。	○	○	○	○	○

1

Group Specific

	Strongly disagree 强烈反对	Disagree 反对	Neutral 中立	Agree 同意	Strongly agree 完全同意
1) My teachers build a classroom community that insists on respect and mutual support for each student's learning. 我的老师会建立一个学生们互相尊重和支持的教室社区。	○	○	○	○	○
2) My teachers promote an inclusive class ethos for students to share different problem-solving approaches and learning strategies. 我的老师会促进包容性的课堂风气，让学生分享不同解决问题的方法和学习策略。	○	○	○	○	○
3) My teachers design learning experiences that call for high levels of collaboration, discussion, and interaction among students. 我的老师设计的学习体验可以让学生之间进行高水平的协作，讨论和互动。	○	○	○	○	○

21. Helping to Promote Students' Positive Perceptions towards English Learning

	Strongly disagree 强烈反对	Disagree 反对	Neutral 中立	Agree 同意	Strongly agree 完全同意
1) My teachers provide students with opportunities to make relevant connections between the English learning and other disciplines. 我的老师会为学生提供英语学习与其他学科建立联系的机会。	○	○	○	○	○
2) My teachers engage in conversations with students to help them understand the importance of English learning. 我的老师会跟学生聊天儿来帮助学生了解英语学习的重要性。	○	○	○	○	○

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22. Helping to Increase Students' Engagement in Learning Task

	Strongly disagree 强烈反对	Disagree 反对	Neutral 中立	Agree 同意	Strongly agree 完全同意
1) My teachers get to know students and incorporate students' interests, aspirations, and backgrounds into the curriculum. 我的老师会去了解学生并将学生的兴趣，志向和背景融入课程中。	○	○	○	○	○
2) My teachers engage students in English learning problems and projects that capture students' interests and have relevance in the world beyond the classroom. 我的老师会让学生参与到让他们感兴趣的，与真实世界有关的英语学习问题和项目。	○	○	○	○	○

	Strongly disagree 强烈反对	Disagree 反对	Neutral 中立	Agree 同意	Strongly agree 完全同意
4) My teachers communicate and consistently reinforcing clear expectations about English language use with each other in class. 我的老师会跟学生明确在课堂上要求使用英语的期望，并会持续加强这一期望。	○	○	○	○	○

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Dimension Two: Learner Engagement 第二维度：学习者参与度

D. Helping Students Increase the Perceived Value of Learning Activity

	Strongly disagree 强烈反对	Disagree 反对	Neutral 中立	Agree 同意	Strongly agree 完全同意
1) My teachers explain the rationale behind each learning activity and make sure students understand the value of the activity. 我的老师会解释每项学习活动背后的原因，并确保学生了解该活动的价值。	○	○	○	○	○
2) My teachers understand why students value (intrinsic, utility, and/or attainment value) an activity and adjust accordingly. 我的老师会去了解学生为什么重视一项活动的原因(本身就感兴趣，或是为了拿高分，或是为了成就感)，并据此来调整活动?	○	○	○	○	○

	Strongly disagree 强烈反对	Disagree 反对	Neutral 中立	Agree 同意	Strongly agree 完全同意
3) My teachers use key "motivational levers" like controversy, choice, and competition to increase students' commitment to learning. 我的老师会在学习中用促进争论，让学生做选择，和鼓励良性竞争等"激励手段"来增强学生的学习决心。	○	○	○	○	○
4) My teachers employ a wide variety of tools and strategies to keep their teaching fresh and keep students excited and on-task. 我的老师会使用各种各样的工具和策略来保持他们教学的新鲜感，从而让学生感到兴奋和对任务保持专注度?	○	○	○	○	○

Dimension Three: Learner Identities/Self 第三维度：学习者身份/自我认知

23. Enhancing Students' Self-Awareness as an English Learner and User

	Strongly disagree 强烈反对	Disagree 反对	Neutral 中立	Agree 同意	Strongly agree 完全同意
1) My teachers tap into the power of "selfhood": encouraging students to pursue their own interests, make their own choices, develop their own perspectives, and express their values and dreams. 我的老师鼓励发挥"自我"的力量：鼓励学生追求自己的兴趣，做出自己的选择，发展自己的观点，表达自己的价值观和梦想。	○	○	○	○	○
2) My teachers work with the students to help them discover the English learning strategies that work for them. 我的老师会帮助学生发现适合他们的英语学习策略。	○	○	○	○	○

	Strongly disagree 强烈反对	Disagree 反对	Neutral 中立	Agree 同意	Strongly agree 完全同意
3) My teachers help students reflect on their own learning process to identify what they did well and where they'd like to improve. 我的老师会帮助学生反思自己的学习过程并确认自己的长处和需要改进的地方。	○	○	○	○	○

24. Help Students Develop Mastery Orientation

	Strongly disagree 强烈反对	Disagree 反对	Neutral 中立	Agree 同意	Strongly agree 完全同意
1) My teachers help students develop beliefs about their capability in English learning. 我的老师会帮助学生建立关于他们英语学习能力的信念(比如，相信自己一定能学好)。	○	○	○	○	○
2) My teachers encourage students to establish personal English learning goals and plans for achieving them. 我的老师鼓励学生建立个人英语学习目标和实现目标的计划。	○	○	○	○	○
3) My teachers celebrate student's progress and success for English learning. 我的老师会庆祝学生在英语学习中取得的进步和成功。	○	○	○	○	○

Adapted from The Thoughtful Classroom Teacher Effectiveness Framework: Teacher Self-Assessment Guide
https://usny.nysed.gov/rttt/teachersleaders/practicerubrics/Docs/SilverStrongSelfAssessmentRubric.pdf
and Kim Susan Bower's Learning Through French Student's Questionnaire

Appendix E: Semi-structured Teacher Interview

Content and English Language Integrated Teaching: Teacher Interview Questions

A. Organization of the content and English language integrated program
1. Where did the idea come from?
2. Which areas of the curriculum are taught in this program? Why did you choose these subjects?
3. How do place the students?
4. What obstacles, if any, did you need to overcome in order to begin to teach your subject in English?
5. Are there any issues which impact the way the program is organized that you have been unable to resolve?
6. How is the program viewed
   a) within the Moonshot Academy
   b) by other faculty
   c) by the students
   d) by the parents?
7. What are the advantages of the immersion program to students, teachers, the dept and the school?
8. Are there any disadvantages?

B. Learning environment: Teacher approaches to teaching, course and group dynamics

1. What kind of learning environment in the classroom do you aim to create/foster?
[e.g. your approach to: group ethos, control vs. autonomy-supporting, challenge, modelling, learner independence, feedback, praise, rewards/sanctions.]

2. Briefly describe how you prepare to teach (the subject) in English

      2.1. How is course content selected?

      2.2. Were there any issues to do with teaching and learning styles that you needed to address?

      2.3. Were there any issues to do with feedback and assessment of students that you needed to address?

      2.4. Who speaks in English and when? Are there any limitations/exceptions? Are there aspects of learning that you use Chinese for?

      2.5. What strategies do you use to enable the students to use English for immersion classes?

      2.6 How does the content and English language integrated learning impact other areas of the curriculum (positive and negative)?

      2.7 What do you consider to be the main issues relating to teaching other curriculum subjects in English?

C. Learner engagement

1. What do you consider to be the main elements of content and English language integrated teaching/ immersion that enhance students motivation? [e.g. students' perceived value: relevance, value of outcome; intrinsic value/pleasure, identified regulation: helped by teachers/others to identify how the learning is important to them; arousal of curiosity, optimal challenge]

2. What impact do you think the English immersion program has on student perceptions of their learning

- in terms of effort?
- in terms of their progress?

3. How does student performance compare with others in the year group in other non-English taught subjects

4. What impact does learning in this way have on cognitive challenge planned by the teacher and on levels of cognition attained by the students?

5. Thinking about the impact you think learning in this way has on student attitudes towards learning – what are student attitudes like

- towards language learning in general?
- towards use of the target language for the students involved?

6.Do you have any evidence for these opinions?

7.What do students particularly enjoy?
8.What do they dislike?
9.Which aspects of the immersion program have you found to motivate students? Any evidence?

D Learner identities/self
Impact of learning in this way on student' mastery of the language:

1. To what extent are students aware of their development of skills (linguistic and other skills)? Are there ways in which you teach them to develop this awareness?
2. To what extent do they set appropriate targets for themselves (long and short term)? Are there ways in which you teach them to set targets for themselves?
3. To what extent do they feel competent in English? Impact of learning in this way on students' self-concept:
4. To what extent do students have a realistic awareness of their own personal strengths/weaknesses in the skills they need in immersion program?
5. Are they able to make personal judgements about what success and failure might be for themselves?
6. Can you think of any ways in which you help learners to understand how they are motivated?

(how do you generate initial motivation (enhance L2-related values and attitudes, including learners' expectancy of success and target-orientated) maintain and protect motivation (stimulating learning, specific targets, maintain positive social image, cooperation, learner autonomy, self- motivating learner strategies and encourage positive self- evaluation (motivational feedback, increasing learner satisfaction, offer rewards and grades in motivating manner)

7. Can you think of any ways in which you explore values relating to learning and languages?

(Adapted from Kim Susan Bower's Learning through French Staff Interview Questions)

Appendix F: Focus Group

Content and English Language Integrated Teaching: Student Focus Group Questions

1. What do you enjoy most in your English taught lessons? What has been the most interesting thing you've done in the CLIL program?
2. Is there anything you don't like? Are you glad that you have the opportunity to learn content in English? Why? Do you think that being in this program will lead to any benefits in the future?

3. How challenging or difficult is the work you have to do? (challenging is something that you can do but have to try hard at in order to achieve it)

- What sort of things does your teacher do to help you?
- What else might be useful?
- Is it a good or bad thing to be given work that is difficult?

4. What opportunities do you have to learn more about English speaking people and countries? In lessons and outside lessons.
5. How does the school when you are struggling?
6. Is it important to have friends in an English-speaking country? Why is that?
7. How hard do you think you work in CLIL lessons?

- What kinds of things motivate you to work hard?

8. What do you think you have achieved through being in the CLIL program?

- Could you give me an example of a successful experience with the CLIL program?

9. What kind of skills do you think you are learning by using English to learn? Learning strategies?
10. Could you give me an example of something you learnt better because you learnt it in a different language? Why do you think this is?
11. Is it important to learn another language? Why?

o If I asked you to tell me what targets you would set yourself to do with learning languages, what would they be - now and for the future?

o How long do you think you will continue learning English? Why?

12. What advice would you give to another student who was thinking of attending MSA? Why did you chose the school?
13. What are the differences in teaching practices between your English subject teachers and your other CLIL subject teachers?
14. What did you do when you didn't make progress for a long time?
15. Which are the English skills improved the most? What does aspect of the program help to improve these skills?
16. What is your understanding about "motivation"?
17. What do you think about the summative assessments at MSA?
18. Do the design of the tasks and projects engage and motivate you?
19. Do you feel safe to express yourselves in English in classes?
20. English learning opportunities outside the classroom?
21. English instructional time

(Adapted from Kim Susan Bower's Learning Through French Student Focus Group Questions)

Appendix G: Journey Mapping
Content and English Language Integrated Teaching and Learning
Journey Mapping about English Learning Experience

1. Get your supplies ready—large sheets of paper, markers and post-it notes.
2. Session introduction talking points
3. Your learner persona
4. Identify journey stages/identity journey touchpoints

At each stage, or touchpoint, the learner needs to visualize their needs, thoughts, emotions, and expectations.

What do they need at each touchpoint?
• What expectations do they have?
• What are they thinking? What questions might they have?
• What are they feeling? Doubt, fear, excitement, confusion, anxiety, frustration…?

5. Visualizing the impact: to visualize how a new idea or solution can change the experience. What might happen?
• How could I be motivated?
• What's the impact on my experience at MSA?

Appendix H

Group Journey Mapping

Appendix I

Individual Journey Mapping

#1 G9 Student

#2 G12 Student

#3 G12 Student

#4 G9 Student

Appendix J

Quotes that Support the finding #1

"When I joined MSA, I had a feeble *foundation* in *English. After a year of interactions with the teachers and* my *classmates in English, I noticed my progress in English skills." (G9)*

"It was my parents' decision to join MSA. In my previous school, I had no self-awareness. I started to explore who I am and what I want to become after joining *MSA. Now I have a direction of my effort." (G11)*

"I learned my English here and made huge progress and got accepted by the college of my choice." (G12)

"Summative assessments at MSA required me to express myself in English. It could be challenging and stressful at times, but in the end, it helped me grow and get better in English." (G11)

"I made huge progress in English over the course of MSA learning. I think MSA has improved *my English proficiency level, including speaking, listening, reading, and writing. In class, we have* many *opportunities to communicate in English; my academic English has improved through various subject reports; given that we need to research in English, my reading skills have also improved." (G12)*

Quotes that Support the finding #2

"Project-based learning requires me to do lots of research in English. I found my writing and reading skills were improved through the research and completing projects." (G10)

"The reason I joined MSA was that I am really interested in English creative writing and poems. I'd love to learn more English culture through the program".(G11)

"Almost every class has at least one class presentation, And at G10 and G12, we need to do defense as our milestone project in English. Therefore, my presentation skills have improved a lot throughout *learning." (G12)*

"Not every teacher would teach in English, but all reading and learning materials are presented in English. And also, many activities require using *English to present and answer questions. So we got to use more English* than *the traditional educational program." (G9)*

"Compared to my previous school, a public school that offers a traditional English program, MSAs' English learning is fun. I think one reason is that it offers project-based learning; another reason is that the teachers are pretty fun." (G11)

Quotes that Support the finding #3

"I think the English instructional time needs to increase a lot. Also, I don't think it is a good strategy to place students by levels. Students with the lower-level need to be blended with the higher-level students so that the students have the chance to use more English and learn from the higher-level students." (G9)

"I am really struggling. I have a very weak foundation in English. If the teacher teaches in English, I won't be able to understand at all. It is frustrating that I don't know how to improve. I tried, but it seems not working." (G9)

"It is depressing if you see your peers can do well and make progress, but you cannot *catch up. Especially for English, because you cannot hide what you are not good at. Everyone would know you canot do it because you simply cannot answer the question or express yourself in English, which really makes me anxious."(G11)*

Quotes that Support the finding #4

"I found the AP courses were very challenging to those whose English was not good. Some students leaped *when the time of using English increased (with good foundation), but some were really struggling because of the weak foundation." (MSA Teacher)*

"When I saw my students were not responding or struggling with the work in English, I would reduce the English instructional time as I am afraid if I keep teaching in English, the students wouldn't understand the content or I wouldn't be able to cover the content in time." (MSA Teacher)

"There were many success stories from the class of 2021. We were confident with our CLIL program then. However, as the school is growing, we found some of the newly enrolled students have been really struggling with the program, and we don't know how to help them." (MSA Teacher)

"I really wanted to support my students to do well in English and wished that English was not a barrier for their content learning, but I don't know how to support them. I don't think I have the necessary skill set to do so. Also, time is also an issue. I cannot afford lots of time on improving students' English." (MSA Teacher)

"I have colleagues who are not proficient in English. They would try their best to avoid using English as much as possible." (MSA Teacher)

Quotes that Support the finding #5

"As a new teacher, I often reached out to the experienced teachers in the department for help when I am struggling with the CLIL teaching. However*, the "tips" I got were: 1. content coverage is the most important task 2. leave the English learning to the English subject teacher. It is their job." (MSA Teacher)*

"All my colleagues in my department believe that they are hired to teach the subject, not English." (MSA Teacher)

Quotes that Support the finding #6

"The current coaching system does not work with students to help them understand the stages for English learning, build their goals and learning strategies, etc.," (MSA Teacher)

"If the school really thinks English is important, I wish they can add the English proficiency objectives into the school's "defense"(G10 & G12) standards and develop rubrics for it." (MSA Teacher)

"There were no clear expectations given by the school regarding how much English instructional time we should have and what English language objectives we need to achieve. If English teaching is not a mandatory requirement, most of my colleagues will *choose an approach that works for their subject." (MSA Teacher)*

"No, there is no English learning program built into dorm life, community service, or other extra-curricular." (MSA Teacher)

"We need a Curriculum Coordinator to map the courses, English instructional time distribution across the subjects, English teaching resources, including the English-speaking teachers." (MSA Teacher)

Appendix K

Milestone Defense Grading Rubrics

	1	2	3 = Passing level	4
Strive for accuracy and precision	corrects work only when reminded; accepts direction in correcting work.	is able to confirm that his/her finished product matches a criteria.	proofreads and checks the quality of personal work; values accuracy and precision.	evaluates work and produces exceptional results; understands the importance of and values accuracy and precision; focuses energy on accomplishing tasks with perfection.
Apply past knowledge to new situations	is able to apply some events to other contexts.	uses experience from the past when confronted with a new problem when reminded by others how it relates.	uses previous, knowledge, data, theories or processes to solve challenges.	abstracts meaning from an experience apply it to a new situation, and explains how it relates to previous experiences.
Think about our thinking	accepts the information as given; restates facts; does not apply facts to actions and continues to follow plan as developed by self or others.	considers new information and demonstrates ability to change direction or use different strategies with guidance.	considers new information and adjusts effort and strategies when needed.	considers new information, adjusts performance and extends learning to new situations.

- Moonshot Statement

Based on your Moonshot Statement presentation, Jury member will gather evidence and information to assess your level on the following 2 competencies.

	1	2	3 = Passing level	4
This is me	Learner has vague understanding of itself. Learner cannot able to elaborate its traits (strenghs, talents or characters).	Learner can use some words to describe its traits, but such descriptions are not backed up by personal and solid experiences.	Learner can back up its traits with solid experiences. It can also find it's position in a new task using its traits.	Not only learner can describe and utilize its traits to accomplish in certain area, but also understand the limitations of such traits with solid reflection.
Demonstrated Interest	Learner has vagues idea about what he/ she is interested in.	Learner can describe a few of his/ her momentary interest areas. Learner understands methods to expand his/her interest areas.	Learner has started to commit planned actions into his/her interests.	Learner can clearly describe his/her interests. Learner has completed devoted works into the interest areas. For example – completed professional courses and trainings, have published papers, created publicly exhibited artifacts.

- Presentation Skill

Your overall presentation skill will be assessed based on your defense performance.

	1	2	3= Passing Level	4
Presentation Skill	The presentation is well organized and the supporting materials contribute to its clarity.	Learner shows a command of presentation skills: body posture, language, eye contact, voice and timing.	Learner shows enthusiasm, and energy and affect are appropriate for the audience, as well as supports the presentation.	Makes effective use of Digital and/or Visual elements to demonstrate his or her learning evidenced in the portfolio.