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Examining the Use of EMI in Primary and Secondary English Classes in Taiwan: Reflections on

Participation in the WWU/NTNU Cloud Project

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Abstract

The purpose of this study is to examine the the impact of the 2017 Western Washington University and National Taiwan Normal University Cloud Project on the Taiwanese participants' use of English as the medium of instruction in their primary and secondary English classrooms, as well as their teaching practices over the course of the program. The participants were surveyed via Qualtrics, and data analysis was undertaken qualitatively using a combination of postcoding categories to identify common elements among the responses to open-ended survey questions. The majority cited an increase in English use in the classroom as a result of the Cloud Project. Similar to previous studies, the teachers found improved listening and speaking skills, increased confidence and motivation, improved pronunciation, and improved writing skills in their students. Participants also described instances in which they found code-switching to be helpful, such as when giving instructions, explaining grammar, or managing the classroom. Based on the results, implementation of EMI in primary and secondary English classrooms can help to eliminate the English achievement gap between rural and urban areas in Taiwan.

Keywords: primary English education, secondary English education, junior high school English education, English as medium of instruction

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Examining the Use of EMI in Primary and Secondary English Classes in Taiwan: Reflections on Participation in the WWU/NTNU Cloud Project

Introduction

The Western Washington University (WWU) and National Taiwan Normal University (NTNU) Cloud Project is a program aimed at supporting the Taiwanese Ministry of Education's goal of increasing the number of English speakers in Taiwan by improving the English teaching ability of Taiwanese teachers in rural areas. NTNU is considered the leading teacher education university in Taiwan, and provides undergraduate degrees, teacher licensure, and certificate programs in English, as well as a Master's and Ph.D. in TESOL (McMahill 2017). WWU's Teaching English to Speakers of Other Languages (TESOL) Certificate Program, on the other hand, has prepared future English teachers at WWU since 1992. The partnership between NTNU and WWU began first with a pilot program in 2013, followed by the Cloud Project in 2015, 2016, and 2017, funded by a grant from Taiwan's Ministry of Education (MOE). All full-time English teachers who had taught for at least one year in a remote or rural school in grades 1-9 in Taiwan were eligible to apply. Applicants were first asked to submit a written explanation of their education background, teaching experience, and motivation for applying, and then a selection of applicants were invited to face-to-face interviews before the final selection process. The participants from WWU were a selection of current and previous TESOL students with demonstrated international or cultural experience. I decided to apply to participate in the 2017 WWU/NTNU Cloud Project as a result of a desire to learn more about Taiwan and Taiwanese culture, as well as to gain more teaching experience following the completion of my TESOL Certificate at WWU. The TESOL participants including myself were provided with a small

stipend, as well as a fully paid visit to Taiwan in December 2017 to visit their respective partner schools and participate in a conference. The M.O.E establishes a budget for the TESOL participants' airfare to Taiwan, and an additional budget for other costs is established by Trish Skillman in the TESOL Certificate Program.

The 2017 WWU/NTNU Cloud Project consisted of a five-week long Professional Development Summer Program on WWU's campus in Bellingham, Washington which included various lessons and workshops, educational and cultural excursions, and school visits organized by Woodring College of Education faculty and participating TESOL students. I was selected along with three other TESOL participants to act as Cultural Ambassadors during the Professional Development Summer Program, and received an hourly wage for participation in educational and cultural excursions over the course of the Professional Development Summer Program, from July 9th through August 12th, 2017. The Professional Development Summer Program was preceded by two online lessons, and followed by 16 online lessons. These "Cloud lessons" in the 2017 program facilitated cultural and linguistic exchange between nine TESOL participants and 18 Taiwanese teachers, 13 of whom were primary school teachers, and 5 of whom were junior high school teachers. The Professional Development theme in 2017 was "Using English to Share Taiwan with the World: Focus on Teaching Methods and Materials for Showcasing the Diverse Cultures of Remote Areas," and the goals for the 2017 Professional Development Summer Program were as follows:

1. Learn about/practice principles of and teaching methods based on second-language acquisition theory and research;

2. Learn and practice how to teach English using English as the medium of instruction in a communicative approach, with a special focus on methods for developing listening comprehension and pragmatic speaking skills;

3. Learn how to supplement and adapt existing curricula and textbooks to support students' acquisition of English and development of communicative competence;

4. Exchange information about educational efforts to support the identities and cultures of children in remote areas including efforts to support indigenous and minority children in the U.S. and Taiwan;

5. Exchange ideas with a wide range of local teachers, visit local schools to study discipline policies, classroom management and classroom preparation, participate in local summer classes, and present at a one-day professional development conference with local educators;

6. Develop and practice a model for collaborating effectively with TESOL student partners in the classroom;

7. Develop curricula, materials, and lesson plans with Cloud Partners in preparation for 2017 Cloud Lessons; combine these into an online textbook for future participants and/or as resources for English teachers and assistant foreign teachers in Taiwan;

8. Learn how to conduct teacher inquiry projects and ongoing assessment; and

9. Experience presenting at an international conference in English (McMahill 2017).

Goal #2 highlights the use of EMI as a key component of the Professional Development Summer Program on WWU's campus, as well as a key component of the Cloud Lessons throughout the Cloud Project. Additionally, as stated in goal #8, the Taiwanese teachers

developed plans for a Teacher Inquiry Project to focus on throughout the duration of the Cloud lessons. These Teacher Inquiry Projects were outlined in a conference held on WWU's campus during the summer of 2017. Many of the teachers chose to focus on the use of English as the primary medium of instruction in their classrooms, and nearly all of the teachers cited use of Mandarin in their English classrooms as impacting students' English learning. Recent studies on the subject of English as the medium of instruction (EMI) in classrooms in Taiwan are focused on tertiary education, and employ qualitative research and surveys to collect teachers' and students' experiences in EMI courses (Yeh 2014). Surveys from such studies of Taiwanese college student attitudes towards EMI suggests that students agree with the benefits of EMI, such as improvement of English fluency, but there is minimal research available involving the attitudes of Taiwanese teachers toward these course types in primary and secondary classrooms (Yeh 2014, Chang 2010, Wu 2006). The current study is aimed to further examine the the impact of the Cloud Project on the Taiwanese teachers' practices over the course of the program as well as the use of EMI in the participating Taiwanese primary and secondary classrooms.

Literature Review

English Education in Taiwan

As a result of the need to compete with other nearby nations, increase international competitiveness, and fulfill the demand for English as the language of international communication, the Taiwanese Ministry of Education has reformed the national English curriculum in recent years so as to start English language education at the primary level. In 2001, the English language, which has long been taught in Taiwan's secondary schools, including both junior high school and senior high school, was made mandatory from Grade 5 in the public

school system. The Ministry of Education (MOE)'s rationale for implementing primary school English language education is as follows:

1. Instill students with an international perspective;

2. Utilize students' "critical period" in language learning most effectively;

3. Optimize the timing of the implementation of the new curriculum; and

4. Follow the trends of the new era and to fulfill parents' expectations (Ministry of Education, 1998)

The implementation of this policy was motivated by globalization, theories in effective English instruction, educational reform in Taiwan, and the expectations of students' parents; the inclusion of parental expectations in the MOE's rationale highlights the the importance of community involvement in education policy in Taiwan. At the same time as the English curriculum reform in 2001, another initiative was launched: the Nine-year Joint Curriculum Plan, i.e., guidelines which integrated school subjects into seven primary areas of study, such as Language Arts. This curriculum area includes Mandarin Chinese, English instruction, and local language varieties such as Taiwanese (Chen 2013). The goals of EFL education at the primary level in Taiwan is established as being:

1. To develop students' basic communicative abilities;

2. To cultivate students' interests as well as better ways of learning English; and

3. To promote students' awareness of local and foreign cultures and customs (Ministry of Education, 2000).

This plan includes a stronger emphasis on listening and speaking skills in primary education, and a focus on reading and writing skills in secondary education, as well as the

incorporation of meaningful communication in the classroom as opposed to rote memorization, in order to promote a more conducive learning environment for students. Two years following this policy reform, the introduction of English language instruction was lowered to Grade 3 from Grade 5. As with the initial reform, it was thought that one reason for this change was the pressure from parents and the community on the Ministry of Education (Hung 2003).

Currently, there is a widening gap in English achievement between rural and urban areas, and the WWU/NTNU Cloud Project is intended as a way to address this gap. The Ministry of Education's 2016 Goals and Objectives highlight the aim to "promote innovation of education in rural areas to eliminate the urban-rural educational quality divide." This divide was addressed during the Professional Development Summer Program as stated in goal #4 of the 2017 Cloud Project, which was to "exchange information about educational efforts to support the identities and cultures of children in remote areas including efforts to support indigenous and minority children in the U.S. and Taiwan" (McMahill 2017).

English as the Medium of Instruction (EMI) and Code-Switching

In the context of the Taiwanese teachers' Inquiry Projects at Western Washington University in the summer of 2017, the incorporation of EMI into primary or secondary EFL classrooms can best be described as the use of English not only as the subject matter, but also as the primary tool used to teach the subject matter. The use of EMI can mean the exclusive use of English in the classroom, or it can mean some limited but purposeful and strategic use of the students' L1. Code-switching, the process of alternating between languages, is common practice in EFL classrooms, and many studies show that this can help to facilitate the language learning process (Baker 2001). Butzkamm (1998) highlights the importance of code-switching for

teachers as a way of clarifying new or abstract concepts. Code-switching in the classroom can allow students to develop a higher level of confidence, but it has been argued that at the same time, maximizing access to comprehensible input is an important component of successful acquisition in a second language or L2 (Thu 2009).

Many approaches have been put forth both in favor of and against the use of the students' primary language or L1 in the EFL classroom. The Grammar Translation Method allows the extensive use of L1 to explain new concepts and make comparisons between L2 and L1, and the Community Language Learning approach similarly supports the use of L1 in EFL classrooms in the early stages of language learning. The Audio-lingual Method and Direct Method, on the other hand, posits that L2 should be taught without any reference to L1 or translation in the EFL classroom. The Communicative Language Teaching approach allows both the instructor and students to use L1 whenever necessary, while the Natural Approach argues that apart from limited L1 use in early language learning, the target language should be the primary medium of instruction (Shuchi and Islam 2016). What is clear, however, is that meaningful input in the target language is essential for language acquisition, and this seems to be lacking in some EFL classrooms in Taiwan.

Previous research regarding the implementation of EMI courses in tertiary education in Taiwan cite the primary reasons for introducing English-medium courses as being the desire for domestic students to gain more exposure to English in order to be prepared for the workforce, as well as to promote internationalization for domestic students at universities, boost university income by attracting foreign students, improve world rankings, and compete in the global educational market (Yeh 2014). The argument that acquiring subject knowledge and improving

fluency in English is a benefit of EMI courses is commonly cited (Coleman 2006), but the achievement of this benefit is largely contingent on the students' English comprehension; while the students' understanding of English may improve over the duration of an EMI course, the use of English has been shown in some instances to compromise the quality of subject learning (Byun et al., 2011). The results of Yeh's 2014 study revealed that seeking English improvement was the second-highest reason for enrolling in EMI courses at the tertiary level, and that as a result of these courses, many students reported perceiving an improvement in their English listening skills. Students attributed learning difficulty in EMI courses to internal factors such as their English proficiency rather than external factors such as the content of the course or the instructor's accent or speaking rate.

While this previous research shows an understanding of students' perceptions of EMI courses in tertiary education, there is little research available involving the attitudes of teachers toward these course types in primary and secondary classrooms in Taiwan. Aiming to fill this gap, the current study examines the experiences of the 18 Taiwanese participants of the 2017 Cloud Project, in order to explore the teachers' attitudes towards the use of English as the primary medium of instruction within primary and secondary education in Taiwan, as well as the perceived impact of this on their students. The specific research questions of this study are as follows:

- When and why do the Taiwanese English teachers use Mandarin in the classroom?
- Did the teaching practices of the Taiwanese teachers change over the course of the Cloud Project?
- Did team teaching impact the use of English in the classroom?

Methodology

Participants

The participants of the study were 18 Taiwanese primary and secondary English teachers who were participants in the 2017 WWU/NTNU Cloud Project. The participants were familiar with one another prior to the study, and I am familiar with the subjects. The Taiwanese teachers spent five weeks on WWU's campus in summer 2017 to participate in the Professional Development Summer Program organized by TESOL faculty and the WWU participating students. We worked with the Taiwanese teachers over the course of the Professional Development Summer Program, where they participated in workshops focused on different teaching strategies including EMI. The WWU Cloud Partners each co-taught online, or "Cloud lessons", to the English classrooms of two Taiwanese teachers. The WWU Cloud Partners were provided a fully funded week long trip to Taiwan in December 2017 to visit the schools in person, participate in a conference, and teach face-to-face English lessons.

Assessments and Measures

In order to address the research questions outlined, I designed a questionnaire with the help of Dr. Kristin Denham and Dr. Cheiron McMahill to explore the teachers' perceptions of the benefits and challenges of EMI in their primary and secondary school classrooms. I submitted the study and questionnaire for approval as an Exempt Category 2 Study by WWU's Research and Sponsored Programs office in December 2017. I then distributed the questionnaire to the participants through Qualtrics via email prior to my departure for Taiwan, and the participants gave their consent as a part of the online questionnaire. The questionnaire contains 10 questions, asking participants to elaborate on the topics of their Teacher Inquiry Projects, the

use of Mandarin in their classrooms and its perceived impact, as well as the effect of team teaching on their students' English ability (see Appendix A). I analyzed the collected data qualitatively to address the research questions. I interpreted the responses to open-ended questions by interpreting the data to derive any emerging themes for discussion. A total of 16 responses were eventually obtained.

Results

Surveying the 16 teachers and interpreting the similarities and differences of their responses provided an overview of their experiences participating in the 2017 WWU/NTNU Cloud Project, the impacts of team-teaching on the use of English in their classrooms, and the challenges and benefits of implementing EMI. Survey responses were analyzed using a combination of postcoding categories to identify thematic elements across the responses. Postcoding is a method of qualitative analysis based on grounded theory to identify themes that emerge in responses to open-ended questions (Cohen and Manion, 1994).

Reasons for Introducing EMI

Eleven of the sixteen teachers surveyed chose to focus on EMI exclusively for their Teacher Inquiry Project as a part of the Cloud Project, and those who didn't focus on EMI also attempted to incorporate more English use through the integration of drama activities in the classroom. In response to survey question 2, the majority of respondents cited their reasons for using EMI in the classroom as a desire to increase the English listening and speaking ability of their students, increase student's motivation to learn English, and make lessons in the English class more meaningful to students. One teacher stated that EMI is "a good way to let students become familiar with the language and increase the chances of using second language in

classes." Another teacher mentioned that their students were often afraid of making mistakes in English, and therefore easily give up when trying to respond to the teacher in English prior to the Cloud Project; increasing English input would eventually help to lower the affective filter.

Fourteen out of sixteen participants reported an increase in the overall use of English in the classroom in response to survey questions 4 and 5. Participant 6 reported a decrease in English use during the Cloud Project from 50-60% to 40-50%, and Participant 15 also reported a decrease in English use from 40-50% to less than 20%, as can be seen in Figure 1.
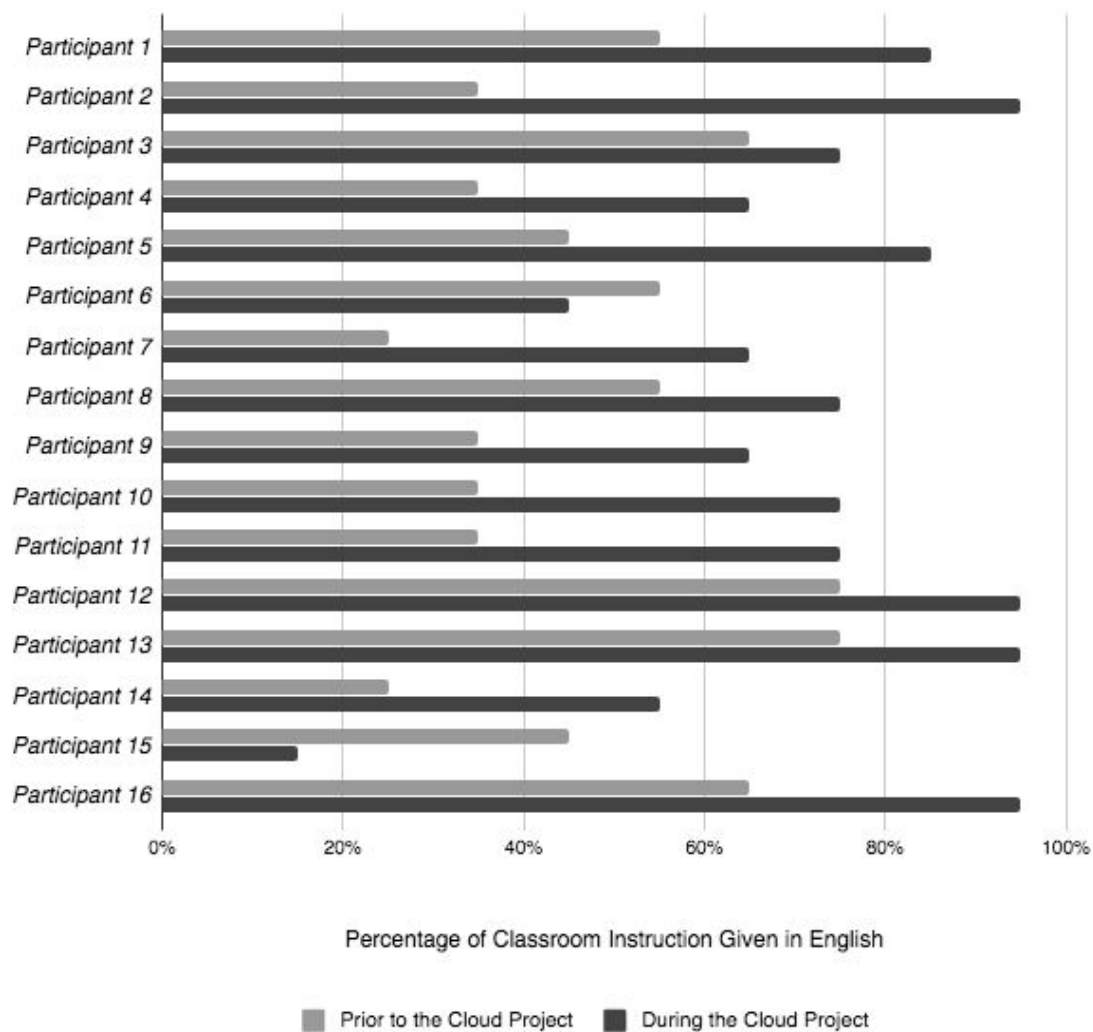

Percentage of Classroom Instruction Given in English

Prior to the Cloud Project   During the Cloud Project

Figure 1. Responses to survey questions 4 and 5: comparing percentage of classroom

instruction given in English prior to the Cloud Project and during the Cloud Project.

Benefits of EMI

Question 3 in the survey asked, "What have you learned so far from your Teacher Inquiry Project?", and many of the responses discussed what they perceived to be benefits of EMI in their classrooms. The participants' responses to the question were compiled, analyzed and summarized as the following comments:

- Students enjoy participating in meaningful activities that provide an opportunity for authentic communication in English, rather than activities from the textbook;

- While some students felt anxious about the increased use of English, most eventually adjusted, and this resulted in more students being willing to speak in English rather than Mandarin in the classroom;

- Use of body language, simplified language, and other scaffolding techniques can help students adjust to EMI in the classroom.

The most notable changes the teachers observed in their students' English use over the duration of the Cloud Project were shared in response to survey question 7. The teachers observed changes in the following areas: improved listening and speaking skills, increased confidence and motivation, improved pronunciation, and improved writing skills. Improvements in listening and speaking were most commonly cited by the teachers, as can be seen in Figure 1 below. One teacher stated their students became less afraid of making mistakes while speaking in English, and another stated their students were "more brave" as a result of the use of EMI. Three teachers in particular noted that their students were more motivated in their English classes, and

they looked forward to activities and lessons. Two teachers stated that their students were much

more "comfortable" speaking in English as well as listening to the teachers speak in English.
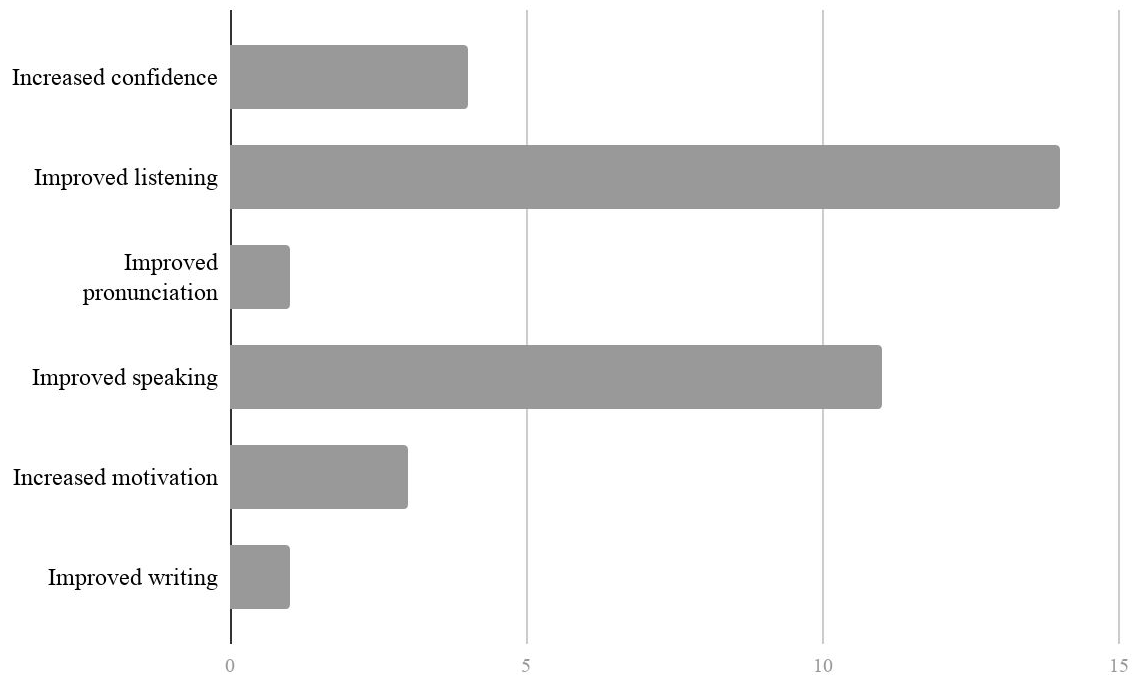
Figure 2. Have you noticed any change in your students' use of English during the Cloud Project? If so, what changes have you noticed?

In response to survey question 8, eleven of the teachers attributed these changes in their students'

use of English to the introduction of EMI in the classroom. One teacher noted that while EMI did

cause these changes, it was important to incorporate nonverbal communication such as gestures,

as well as interactive activities to keep students engaged. Others stated they believed the benefits

were due to interaction with native speakers of English, the use of authentic materials, and the

incorporation of meaningful activities into the lessons in addition to EMI. One teacher in

particular said that they felt "the unique experience of talking to foreigners on the cloud" had a

positive impact on their students' English use. Another stated that "the only way to communicate

with our cloud teacher is to speak English" which motivates not only the teacher to use more English in the classroom, but the students as well.

Challenges of EMI and Team-Teaching

In response to survey question 6, respondents described three primary situations in which they felt EMI was not helpful in their classrooms: explaining complex grammar, giving instructions, and class management. In these instances, the teachers use Mandarin rather than English. One teacher stated that if they are introducing a new concept in English grammar, they first explain the new concept in English, and then follow with an explanation in Mandarin in order to make sure their students understand the concept. Other teachers said that using Mandarin was especially important for abstract concepts or vocabulary words, which were difficult for students to understand in English.
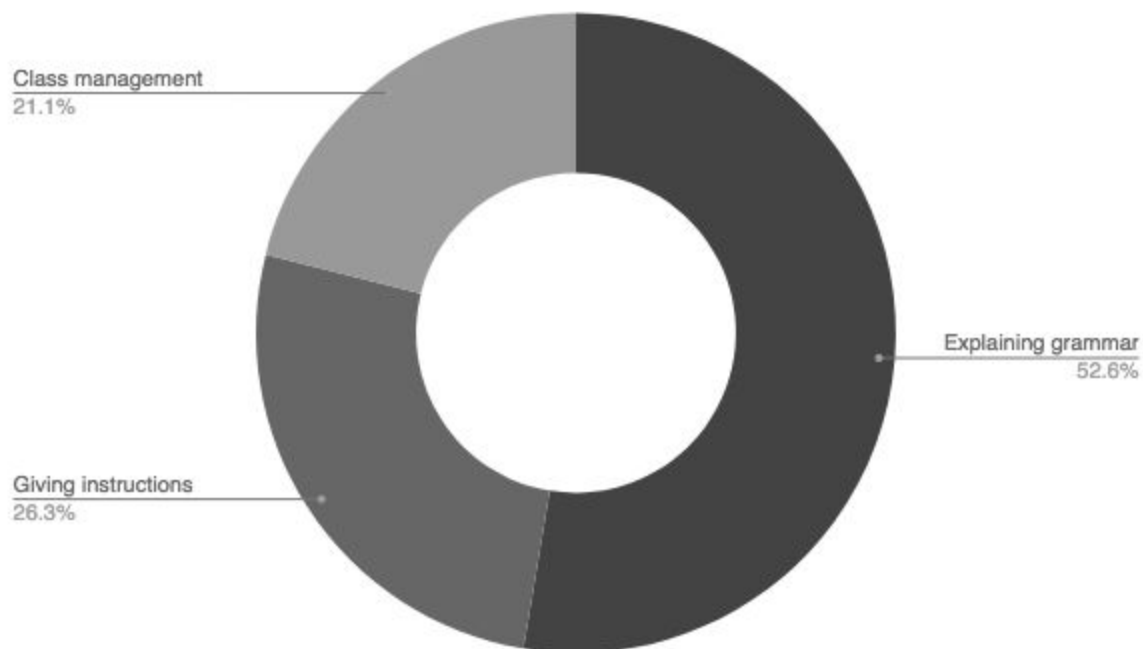

Figure 3. When do you use Mandarin in the classroom?

In response to question 10, the teachers discussed a wide range of challenges associated with team-teaching in particular. Some teachers cited it being difficult to speak English in the class when they felt the need to translate for their WWU Cloud Partners, most of whom had little or no knowledge of Mandarin. Six of the teachers struggled with the limited amount of time available to meet with their WWU Cloud Partners before each lesson, leaving them feeling unprepared. Four teachers mentioned challenges associated with the digital nature of the Cloud Project. One said, "Sometimes it just doesn't work" referring to the use of technology in the classroom. Another stated that they felt "discussing face to face is more convenient" when planning lessons collaboratively. Three teachers in particular found it difficult to manage the classroom while also participating in the lessons and listening to their students' responses to the WWU Cloud Partner. One teacher found that team-teaching made EMI difficult in some ways, because they felt the need to translate for their students.

Overall, the teachers felt that team teaching had a positive impact on their teaching practices over the course of the Cloud Project. Eight of the teachers felt that team teaching gave them the opportunity to discover new ideas about how to successfully teach English at the primary and secondary level. One teacher in particular felt that team teaching also presented an opportunity for the students to learn from another teacher.

Discussion

This study surveyed 16 of the participants of the 2017 WWU/NTNU Cloud Project to further examine their experience introducing EMI in their primary or secondary English classrooms. Results revealed that the Taiwanese teachers use of Mandarin in the classroom is

most commonly in order to manage the classroom, give instructions, and explain grammar to the students. The instances in which the Taiwanese teachers discussed using Mandarin in the classroom coincides with Butzkamm's thoughts on the use of code-switching as an important tool in clarifying new or abstract concepts for students (1998). The increased implementation of EMI in the classroom was the largest change to the teachers' teaching practices in the classroom, but the teachers also incorporated more authentic materials and meaningful activities into their lessons, which they felt had a positive impact on their students. Team teaching and the introduction of EMI in the classroom had an overall positive impact on the use of English in the classroom, but some teachers found that team teaching had a negative impact on the use of English in the classroom, as they felt that they needed to translate for their students or clarify their WWU Cloud Partners instructions.

Through the implementation of EMI in their classrooms, 14 of the 16 participating teachers found that their use of English increased in the classroom. The Taiwanese teachers observed increased confidence, improved listening, improved pronunciation, improved speaking, increased motivation, and improved writing skills in their students as a result of the introduction of EMI, but also as a result of other changes in the classroom. Listening and speaking skills were the most commonly cited improvements noticed by the teachers. This is similar to the results of Yeh's 2014 study, where 77% of students surveyed acknowledged listening improvement, 47% reported improved speaking skills, and 50% reported an increase in motivation to learn English as a result of their EMI courses in tertiary education.

The decrease in English use in the classroom reported by two participants was an unanticipated finding, although there may be an explanation for such a decrease. Participant 6, who reported a decrease in English as the medium of instruction during the Cloud Project from 50-60% to 40-50%, cited having to translate for their WWU Cloud Partner during Cloud Lessons as well as students having difficulty understanding the WWU Cloud Partner as challenges they encountered over the duration of the Cloud Project. This may be the reason for the decreased amount of English usage in spite of a desire to implement EMI in their classroom. Participant 15 also reported a decrease in English as the medium of instruction from 40-50% to less than 20%, but no apparent explanation for this decrease was provided in responses to the other survey questions as in the case of Participant 6, and it is possible that the participant misunderstood the survey question In retrospect, it would have been better to prepare a bilingual survey in Mandarin and English to avoid this problem.

The teachers' thoughts on the positive impact of having native English speakers in the classroom, the use of authentic materials, and the importance of meaningful activities is also worth noting. Authentic materials can be defined as "exposure to real language and its use in its own community" (Kilickaya 2004), and is therefore closely tied to both the presence of native English speakers as well as the incorporation of meaningful activities into lesson plans. Cultural content is a common aspect of the use of authentic materials in the English classroom, and has been thought to be a factor in increasing student motivation and interest in learning a foreign language (Kilickaya 2004). The use of cross-cultural topics such as sharing American holidays, currency, and daily life was a common aspect of all Cloud lessons throughout the 2017 WW/NTNU Cloud Project and is likely what many teachers were referring to when responding

to survey question 8. The presence of the WWU Cloud Partner as well as authentic materials and meaningful activities allowed the students to not only see the target language used in a more natural way, but also to interact in the target language themselves in a way that is closer to the way English is used outside of the classroom.

Conclusion

Recent studies on the implementation and use of English as the medium of instruction (EMI) in classrooms in Taiwan are focused in tertiary education, and employ qualitative research and surveys to better understand students' experiences in such courses. Results of previous studies suggest that students agree with known benefits of EMI, but there is little research available involving the attitudes of Taiwanese teachers toward the implementation and use of EMI in primary and secondary education. This study surveyed 16 of the participants of the 2017 WWU/NTNU Cloud Project in order to further examine their experience introducing EMI in their primary or secondary English classrooms, as well as their use of Mandarin in the classroom, and the impact of the Cloud Project and team teaching on their teaching practices. These findings are important for informing the future of the WWU/NTNU Cloud Project, as well as in order to provide a greater understanding of the benefits and challenges of implementation of EMI in Taiwanese primary and secondary EFL classrooms.

The research reaffirms the findings of previous studies, but in the context of primary and secondary education. The implementation of EMI in the teachers' primary and secondary EFL classrooms was largely successful, although some teachers did encounter challenges. Similar to the results of previous research in Taiwan, the teachers noticed improvements in their students' listening and speaking skills, increased confidence and motivation, improved pronunciation, and

improved writing skills largely as a result of EMI. The teachers also found that the presence of native English speakers and the use of authentic materials and meaningful activities had a positive effect on their students' English. When asked about the use of Mandarin in the classroom, the teachers provided three primary instances in which they find code-switching helpful: explaining grammar, giving instructions, and class management. Other challenges the teachers faced involved difficulties with the technological aspects of the Cloud Project and lack of time to meet with their WWU partners before Cloud lessons, either due to the time difference between Taiwan and Washington, or their busy schedules as teachers. Overall, the Taiwanese participants felt that the 2017 Cloud Project had a positive impact on their teaching and their students. It can be seen that the use of EMI in primary and secondary EFL classrooms can assist in achieving the MOE's goal of eliminating the English achievement gap between rural and urban areas in Taiwan, and therefore should be an important component of the Cloud Project in its future.

Limitations and Further Questions

The responses offered by the participants reflect only a small subset of English teachers in primary and secondary English classrooms in Taiwan. The teachers were contacted based on their participation in the 2017 WWU/NTNU Cloud Project, and while all 18 participants were contacted to participate in the survey, only 16 responses were obtained. As a result, the responses summarized here do not reflect the perspectives of all Taiwanese participants in the 2017 WWU/NTNU Cloud Project. The difference in the grade levels of the teachers' classrooms may also be a factor in the benefits and challenges of EMI implementation. Primary school students, in grades third through sixth, would have had less prior exposure to English than students in

junior high school, grades seven through nine. Furthermore, it is worth mentioning that I was informed by personal experience participating in the 2017 Cloud Project as a WWU Cloud Partner. Interpretations of survey responses are subject to the my own biases and experience, and these interpretations should be read as such.

If I were to design this study again, there are a number of changes I would make. Most importantly, I think it would be insightful to send the participants multiple surveys over the course of the WWU/NTNU Cloud Project, in order to provide a more detailed picture of the teachers' experiences implementing EMI, and a deeper understanding of the impact of EMI on their students. I would likely include a question in the survey in order to discover what authentic materials and meaningful activities in particular were found to have made a large impact on the students' English use. It would also be helpful to capture qualitatively the experiences and perspectives of WWU participants in the WWU/NTNU Cloud Project as it pertains to the implementation of EMI.

There are a number of gaps in our knowledge around the use of EMI in primary and secondary education in Taiwanese EFL classrooms that would benefit from further research. In-depth exploration of the difference in challenges of implementing EMI in primary classrooms compared to secondary classrooms would provide a better understanding of challenges teachers may face when attempting to implement EMI with younger language learners. Further research could explore the impact of the native speaker in EMI courses, and how team-teaching might support effective EMI implementation. A final important question that I identified after data collection had finished is: will the Taiwanese teachers continue to implement EMI in their EFL classrooms in the future?

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Appendix A

1.   What did you choose to focus on for your Teacher Inquiry Project?

2.   Why did you choose this topic?

3.   What have you learned so far from your Teacher Inquiry Project?

4.   What percent of the time did you use English as the medium of instruction in your

classroom prior to involvement in the Cloud Project?

    4.1.   Less than 20% (1)

    4.2.   20-30% (2)

    4.3.   30-40% (3)

    4.4.   40-50% (4)

    4.5.   50-60% (5)

    4.6.   60-70% (6)

    4.7.   70-80% (7)

    4.8.   80-90% (8)

    4.9.   Over 90% (9)

5.   What percent of the time did you use English as the medium of instruction in your

classroom during your involvement in the Cloud Project?

    5.1.   Less than 20% (1)

    5.2.   20-30% (2)

    5.3.   30-40% (3)

    5.4.   40-50% (4)

    5.5.   50-60% (5)

    5.6.   60-70% (6)

    5.7.   70-80% (7)

    5.8.   80-90% (8)

    5.9.   Over 90% (9)

6.   When do you use Mandarin in the classroom?

7.   Have you noticed any change in your students' use of English during the Cloud Project? If so, what changes have you noticed?

8.   What do you think caused these changes?

9.   Did team teaching have an impact on your teaching practices over the course of the project?

10.   Did you encounter any challenges with team teaching over the course of the project? If so, what challenges did you encounter?