A Systematic Review of English Medium Instruction (EMI)
and Implications for the South Korean Higher Education Context

by Dylan Glyn Williams

Seoul National University (Seoul, South Korea)

Key words: EMI, higher education, South Korea, systematic review, internationalization

Abstract

This review focuses on the recent global trend of implementing English Medium Instruction (EMI) in non-English language higher education contexts. The aim is to arrive at a comprehensive view of published research focused on this global trend and to draw out the implications for international findings on EMI in the South Korean higher education context. A two-stage systematic literature review is used to explore the published EMI research. The first stage involves a quantitative content analysis, which establishes themes in the published research. The second stage involves an in-depth exploration of three specific areas, which are identified to be significant for successful EMI in the South Korean context (Byun, Chu, Kim, M., Park, Kim, S., & Jung, 2011). These include: a) the students' and the lecturers' language proficiencies, b) the varying demands of different academic situations, and c) EMI support. The review identifies how current policy makers' handling of these areas has resulted in both challenges and opportunities for students and instructors engaged in EMI. However, the review indicates that current EMI implementation produces more challenges than opportunities to both parties and that this may be a by-product of a rapid implementation of the policy and a lack of adequate support for students' and instructors' linguistic academic needs. The conclusion discusses the wider implications that the EMI trend may have for students' future English second language and academic content knowledge acquisition and offers guidelines which may strengthen future implementation of EMI in international higher education contexts.

Introduction

Through the implementation of English Medium Instruction (EMI) policy in second language (L2) higher education contexts students are competing both academically and linguistically. Since the start of the new millennium, this implementation has been a global trend, which is

increasing. This paper reports on a research project funded by the Faculty of Liberal Education at Seoul National University, which aims to systematically review the global research and policy literature on EMI in the L2 higher education context. More specifically, the aim is to research this global trend in terms of the impact it has on the South Korean context.

As an EAP (English for Academic Purposes) instructor at the Seoul National University (SNU), I observe the students struggling with aspects of EMI, which has motivated me to research these observations further in the EMI literature. SNU employs EMI on certain courses. It currently offers 11% of all degree courses in English (Lee, 2012). The University supports this learning through EAP courses. It is my hope that this research will broaden our awareness of challenges and opportunities that students experience in their EMI courses. This awareness may provide the foundation for a framework to strengthen the implementation for future EMI courses internationally.

The Background to EMI as a Global Trend

English is the global language of education and research. Thus, as universities are becoming international institutions, EMI in higher education is becoming more common all over the world (see Altbach, 2005, 2007; Altbach, Reisberg, & Rumbley, 2009; Mok, 2007). Within this internationalization process, universities have become marketable and corporate entities (Piller & Cho, 2013). Slaughter and Leslie (2001) refer to this phenomenon as "academic capitalism" (p.154).

Since the turn of the millennium, this internationalization has been a common trend in countries that have a Confucian heritage culture. With regards to the higher education context, in China in 2001 the Ministry of Education began encouraging higher education establishments to use EMI in a range of majors including IT, finance, biotechnology, law, economics and foreign trade (Kam, 2006). In Japan, with the aim of having 300,000 international students by 2020, the government established a project called "Global 30" in 2008. The 13 universities involved in this project have expanded courses to offer degrees only through the medium of English (Kimura, n.d.). In Singapore, English is the sole medium of instruction in universities (Altbach, 2005).

In addition to SNU, other South Korean universities have responded to internationalization by adopting EMI. Since 2006, Korea University has offered over 30% of taught courses in English (Byun et al., 2013). Since 2007, Korea Advanced Institute of Science and Technology (KAIST) has implemented a policy to teach all freshman courses in the English medium (Park, J.S.Y., 2009). In 2010, Pohang University of Science and Technology (POSTECH) conducted 93% of all lectures in English, and at this time English lecture rates averaged 30% at the top ten universities in Korea (Piller & Cho, 2013).

Two newspapers rank Korean universities nationally: *Joongang Ilbo* (modeled on the *U.S. News and World Report* college rankings) and *Chosun Ilbo* (modeled on the Quacquarelli Symonds (QS) rankings). Piller and Cho (2013) describe the trend of implementing EMI in Korea as a "relentless pursuit" (p.34). They posit that university ranking is responsible for this as it is used as a "measurement of internationalization" (p.36). According to the authors, this internationalization criterion is calculated by the number of foreign faculty employed, the number of international and exchange students, and the number of lectures being conducted in English. They further state that improving rank based on research and publication is a slow process; however, the internationalization components can be altered quickly. Accordingly, this is how EMI implementation is being 'relentlessly pursued' in Korea.

Byun et al. (2011) conducted research at Korea University, using mixed methods (surveys and interviews), and presented findings relevant to EMI in Korean higher education. They concluded that if EMI implementation is to be a success then three areas need to be addressed: 1) the students' and the instructors' language proficiencies (see also Kang & Park, 2004), 2) the varying demands of different academic subjects (see also Sert, 2008), and 3) a facilitative body which can support this implementation (see also Mellion, 2008). They state that without consideration of the above, the implementation of EMI can have negative side effects (see also Park, J.K., 2009).

It seems to me that with rapid implementation of the policy, these negative side effects can also present themselves as challenges to the students. Nevertheless, if the areas are addressed, we cannot rule out the opportunities that EMI presents. Accordingly, the review aimed to investigate the following hypotheses:

1. The implementation of EMI in L2 higher education presents challenges to students.

2. The implementation of EMI in L2 higher education presents opportunities for students.

Research Methodology

The methodology section is composed of two sub-sections. The first provides a cursory overview of themes emerging from the literature. The second explores in more detail how the three areas for EMI implementation success outlined above in Byun et al.'s (2011) research have been addressed globally up until now.

The First Stage of Analysis

A purposive sampling approach (Riffe, Lacy & Fico, 2005) was used to locate sources for content analysis. I needed to find sources which met certain criteria; that is, they had to be from an international publication, they had to refer to EMI implementation[1], they had refer to research from either English as a Foreign Language (EFL) or English as a Second Language (ESL) higher education context, and they had to be published post 2000 (as from this period internationalization was becoming a phenomenon). Having outlined these criteria, sources were located by exploring databases of international peer reviewed journals.

Some articles may have been overlooked through employing these criteria. Nevertheless, this purposive sampling approach gave a systematic framework to my review. To maintain this framework, only articles / book chapters which were identified through the databases were included as opposed to ones that were referred to through the contents of another book chapter, or article. The database also included papers from some international conferences, and these made up a small portion of the total sources.

Through the purposive sampling approach, a total of 132 sources were identified which matched the criteria. This amount of sources was too much to handle for the small scale of this research. Hence, based on recommendations by other researchers (Holsti, 1969; Krippendorff, 2012), I decided to analyze a sample of each source to arrive at an overview of themes emerging from the data. With journal articles and book chapters as sources, abstracts and chapter introductions were used as samples, respectively. By accessing the sources

---

[1] As well as EMI, CLIL (Content and Language Integrated Learning) was explored in searches. These acronyms were used in various combinations as key word phrases - e.g. 'EMI higher education' – 'CLIL university education' etc.

through the databases, *Hangeul* (Korean-written) articles / book chapters were not accessed as they were not intended for an international audience.

ITEM	POSITIVE	NEGATIVE
ACHIEVE	7	2
ACTIVE	8	3
ADVANTAGE	12	
APPROACH	12	8
CHALLENGE		17
COMPREHENSION	2	6
CONCERN		6
DEBATE		7
DIFFICULTY		14
EMI	6	10
INSTRUCTION	4	8
ISSUES		11
LECTURE (COMPREHENSION)	2	11
LINGUISTIC		7
MEDIUM	4	9
MOTIVATE	6	1
MULTILINGUAL	6	2
PROBLEM	1	19
SKILLS	1	6
TALLY	**71 (32.5%)**	**147 (67.5%)**

Table 1: A tabulation of the relevant lexical items which were selected following the use of the lextutor *software in the first stage of analysis*[2]

The condensed sources were placed into *lextutor*[3]*,* which systematically calculated word frequencies that were then extracted if they connected to the research hypothesis. Words

---

[2] While quantifying these lexical items, derivatives of a word were tallied under its root. This was done as the derivatives were contextually referring to the same phenomenon. Also, categorizing them together speeded up the process, and thus made the data easier to handle.

[3] See www.lextutor.ca/concordancers/text_concord/

which connected to challenges or opportunities and which had an individual tally of over five were the criteria for the extractions. This tally allowed for multiple mentions to be grouped as an emerging theme.

The Second Stage of Analysis

Althaus, Edy and Phalen (2002) state that an aggregation of a large sample of abstracts can disclose significant factors relating to the subject matter being researched. However, they caution that they can also be "imprecise representations" (p.488; see also Holsti, 1969) of the fuller bodies. Thus, the condensed samples might misrepresent the fuller text in the main bodies of the sources. Nevertheless, the lexical corpus driven analysis functioned as a heuristic in attuning me to the general themes emerging from the literature. As seen in table 1, the analysis highlighted positive themes (a third of the total count) and negative themes (two thirds of the total count) to describe EMI implementation. It was clear from this stage that there are '*problems*' and '*advantages*' etc. with implementation. Apart from this, the first stage to analysis did not reveal much more. As a result, in the second stage of analysis an examination of what caused these '*problems*' and '*advantages*' was required.

In the section on EMI as a global trend, it is stated that Byun et al. (2011) identify three areas which require attention for EMI to be a success. These are: 1) the students' and the instructors' language proficiencies; 2) the varying demands of different academic subjects; and 3) a facilitative body which can support EMI implementation. In the second stage of analysis, I manually reviewed the sources in full with these three areas in mind to see how they related to the themes which emerged from the first stage of analysis. A manual systematic approach to analysis was selected to increase intimacy with the data (see Bergin, 2011). This second stage involved a much closer read of the sources by individually examining the opportunities and challenges discussed in each area. The findings relating to each area were then organized into three tables (see Results below), which summarize the challenges and/or opportunities presented in each source.

Results

At the beginning of this paper the following were outlined as my hypotheses:

1. The implementation of EMI in L2 higher education presents challenges to students.

2. The implementation of EMI in L2 higher education presents opportunities for students.

This section presents three tables summarizing the challenges and the opportunities identified in in the review. Each table presents one of the three areas for EMI success outlined by Byun et al. (2001) and is followed by a discussion of substantive findings. I begin by summarizing the results based upon the students' and the instructors' language proficiencies.

Review Findings Regarding the Students' and the Instructors' Language Proficiencies

There is a recurring theme in table 2 regarding the instructors' level of English. This seems to be a global problem in EFL and ESL contexts and it is talked about as a challenge. This implies that globally the majority of instructors feel pressured in having to teach EMI. Moreover, they lack the proficiency to do so. When the focus is on teaching academic content knowledge in English, this lack of instructor proficiency needs to be addressed. This review indicates that it has not been given as much attention as required up until now. As seen, this lack of proficiency has negative consequences: lack of student satisfaction (Mellion, 2008), lack of comprehension (Chang, 2010), and reliance on the L1 (Kim, 2011). However, as the 'rapid implementation' of EMI continues, it is encouraging to see that younger instructors are more prepared for the demands of the policy (see Jensen & Thøgersen, 2011). A reason given for this is that using more English in Denmark is seen as a new phenomenon, and thus, the younger generation are more prepared for it in terms of proficiency.

AREA	AUTHORS	OPPORTUNITIES	CHALLENGES	LOCATION	METHOD
	Aguilar & Muñoz (2013)	CLIL was an advantage to less proficient students who had greater L2 gains.	Lecturers limited proficiency.	Spain	Quantitative
	Aguilar & Rodríguez (2012)		Lecturers' insufficient proficiency.	Spain	Qualitative
	Chang (2010)	Students believed that EMI was valuable in improving language proficiency.	Students did not comprehend everything as the professors' proficiency was insufficient.	Taiwan	Mixed
	Evan & Morrison (2011)	With time the challenges of EMI can be overcome.	Initial exposure to EMI a challenge.	Hong Kong	Mixed
	Hellekjær (2010)	Quality of lecture is important, not language used.	Grasping concepts is a challenge in L1 and L2. Students have difficulty in comprehension. Non-native teachers have difficulty in switching to L2 (both in and outside the class). A slow pace in covering material.	Norway / Germany	Quantitative

	Ibrahim (2001)	More comprehensible input and more comprehensible output.	EMI not a language focused class. Lack of proficiency in students and instructors a 'threat' as it could lead to no rapport, no comprehension checks, and no discussion with the students. All this could lead to students suffering academically and socially.	Indonesia	Review
	Jensen & Thøgersen (2011)	Young instructors were positive as they were more prepared.	Concern by lecturers about increase in EMI use. EMI is an obstacle in transmitting content knowledge. EMI devalues national identity.	Denmark	Quantitative
	Kim (2011)		Students and instructors favored L1 to explain complex material. Students were not in favor of EMI as it hampered depth of learning.	Korea	Mixed
	Manh (2012)		70% of freshman students had low proficiency: few lecturers had adequate oral skills.	Vietnam	Review
	Mellion (2008)		Students were not satisfied with instructor proficiency and wanted them to obtain a CPE certificate as proof of competency to teach.	Netherlands	Qualitative

Table 2: A summary of discoveries from the systematic literature review concerning proficiency

In table 2, through the opportunities, we see that EMI does have an educational value. However, I question the value of the policy. For instance, in the case of Vietnam, it seems that policy makers are 'jumping on the internationalization bandwagon', as through current implementation practices it is difficult for one to see how valuable EMI will be for students' academic success. According to Manh (2012), Vietnam is currently partaking in the National Education system 2008-2020 project, and by 2015 the project intends to begin EMI courses for 20% of university students in some disciplines. The aim is for all higher education institutes to adopt EMI courses by 2020. However, the author notes that both students and instructors in Vietnam have low English proficiency, as seen in table 2. More to the point, these factors do not seem to be supported. This seems to imply that as in many other cases of rapid implementation, institutional needs take precedent over the students' needs.

To understand the needs of students and faculty, Kim (2011) surveyed and interviewed students and professors from various universities around Seoul. It was discovered that the majority of professors and students favored using L1 as a means of explaining complex

material. In other words, the professor's English proficiency was a vital consideration to clearly explain the material in EMI classes. Moreover, the majority of students were against EMI classes as the policy hampered the depth of acquisition which they could achieve in their L1. The author suggests that to increase students' proficiency more L2 input is required from the professors, which leans towards Krashen's *i*+1 hypothesis.

In research conducted in Indonesian Universities, Krashen's hypothesis was also advanced by Ibrahim (2001). He believes that through EMI courses students are more exposed to English (comprehensible input), and thus, have a greater chance to use it (comprehensible output). However, the author states that this does not mean that EMI classes will improve the four skills as they are not language focused classes. Ibrahim labels the lack of English proficiency among students and instructors in Indonesia as a "threat" (p.125) to EMI. This is because instructors with this lack of skill will produce poor lectures, which based on *i*+1 will correspondingly hamper the students' development. With a lack of adequate proficiency, instructors would not be able to establish rapport with the students, by comprehension checks, discussion prompts etc. Similarly, students would suffer academically and socially as poor proficiency would deter them from asking questions and developing bonds with their instructors and classmates. Additionally, I find it hard to envisage how a concept such as *i*+1 can be applied to the instructor / student dynamic in EMI situations when there seems to be a plethora of cases where a lack of instructors' proficiency is also an issue. In summary, when I reflect on this area of EMI, I agree with Ibrahim's position that a lack of English proficiency can be labeled as a 'threat' to the value of the policy.

Review Findings Relating to Academic EMI Situations

Even though Byun et al. (2011) refer to the varying demands of different academic subjects being a criterion for EMI success, I feel that labeling this section as subject demands would have made my review one-sided. Instead, I focused upon an overview of academic situations as presented in the literature. To be more specific, I focus upon the challenges and opportunities presented in each academic situation followed by an evaluation of the demands involved.

The results which are presented in table 3 fall into specific categories. Opportunities are discussed as being driven by the content quality of classes irrespective of the language in

which it is taught (see Airey & Linder, 2006; Joe & Lee, 2012; Mok, 2007). Additionally, opportunities seem to come through partial integrations of EMI policies (see Karabinar, 2008; Kim, 2011; Joe & Lee,2012; Tamtan, Gallagher, Olabi & Naher, 2012). In contrast, a lack of coping skills to be successful within EMI emerges as a dominant challenge (see Airey & Linder, 2006; Somer, 2001; Sert, 2008, Karabinar, 2008; Chang, 2010; Kim, 2011; Joe & Lee, 2012; Kim & Sohn, 2009; Tamtan et al., 2012). What follows is a fuller exploration of how these themes are presented in the review.

AREA	AUTHORS	OPPORTUNITIES	CHALLENGES	LOCATION	METHOD
ACADEMIC EMI SITUATIONS	Airey & Linder (2006)	Quality of lectures is more important than language used.	The asking and answering of questions by students limited. They struggled to follow lectures and take notes.	Sweden	Quantitative
	Chang (2010)		Students from technical disciplines faced more difficulties in comprehending lectures than students from management related disciplines. They had limited vocabulary and slow reading speed.	Taiwan	Mixed
	Doiz, Lasagabaster & Sierra (2012)		Linguistic conflict materializes between minority languages and multilingual language policy. Extra pressure to adapt materials into L2. EMI requires more planning.	Spain	Qualitative
	Joe & Lee (2012)	Medium of instruction was not an issue for students when comprehending lectures. Academic ability takes precedent over English proficiency. Minimal use of L1 would reduce tension and anxiety.	With rapid implementation students' varying demands in different academic subjects are not being met.	Korea	Quantitative
	Karabinar (2008)	Partial integration resulted in a higher self-concept in subject content.	L1 vital tool for acquiring the content knowledge. It made the process easier for students.	Turkey	Quantitative
	Kim (2011)	L1 should be used as a tool in EMI classes, but guidelines needed on usage.	No consideration for students' range of abilities, or demands of specific courses. Focus is on improving rank, rather than students' needs.	Korea	Mixed
	Kim et al. (2009)	Student satisfaction can be increased by offering the whole class in English.	Majority of students stated that EMI courses experienced were worse than the same course in Korean. Offering Korean supplementary material deters the students' English development.	Korea	Quantitative
	Kim & Sohn (2009)		Science and Engineering programs adopt EMI more rapidly than other majors.	Korea	Quantitative

AREA	AUTHORS	OPPORTUNITIES	CHALLENGES	LOCATION	METHOD
ACADEMIC EMI SITUATIONS			Students prefer instructors to speak only English in lectures.		
	Kim, Son & Sohn (2009)	Student satisfaction can be increased by offering the whole class in English.	Majority of students stated that EMI courses experienced were worse than the same course in Korean. Offering Korean supplementary material deters the students' English development.	Korea	Quantitative
	Lasagabaster (2008)	Implementation of CLIL successful in helping students improve L2 competency. The approach had positive outcomes on all language aspects. Early intervention is key of success.		Spain	Quantitative
	Mok (2007)	Students and professors should be responsible for shaping the teaching context to suit their needs.	Inappropriate methodology - 'new imperialism' damages local cultures and traditions.	Asia	Review
	Somer (2001)		L1 and L2 used for teaching, as students had low proficiency and comprehension problems.	Turkey	Quantitative
	Sert (2008)		EMI was ineffective in providing academic content. It had a negative influence on students' critical thinking ability.	Turkey	Quantitative
	Tamtan et al. (2012)	EMI increases motivation to study English. Increased exposure to English advances L2 acquisition and skill transference. Full and partial implementation of EMI are options.	Faculty fail to develop both linguistic and academic content. Students' insufficient language knowledge and lack of interest is a threat to cultural identity.	Europe, Asia, & Africa	Review
	van Splunder (2010)	Students who experienced EMI had a more positive attitude towards instruction. Lecturers themselves also had a positive attitude towards English.		Flanders (Belgium)	Mixed
	Zare-ee & Gholami (2013)	EMI preferred by professors as it helped establish English as an international language of science and technology, it was difficult to translate scientific terminology into Persian, and it improved comprehension of books and articles; and the potential to share research internationally.		Iran	Qualitative

Table 3: A summary of discoveries from the systematic literature review concerning the varying opportunities and challenges of different academic situations

From the summary of academic EMI situations presented in table 3 there seems to be a more even balance between opportunities and challenges being reported upon in the review (opportunities are reported upon in 11 sources, and challenges in 13 sources). It is clear from table 3 that EMI policy is demanding on both students and instructors. For instance, Airey and Linder (2006), noted the coping strategies that undergraduate physics students have to adopt in Sweden in order to deal with the content of the lectures. They found that when English was used, the asking and answering of questions by the students was limited. The students also struggled to follow lectures and take notes. Furthermore, Sert (2008) presents one of the most challenging aspects of the policy existing in the higher education context, and this concerns the negative influence it has on students' critical thinking ability. Similarly, it was noted in Turkey that EMI was ineffective in providing academic development as students faced difficulties in understanding the content of the materials. Even though Joe and Lee (2012) note that in EMI, academic ability takes precedent over English, Sert (2008) implies that this focus is also ineffective if the academic focus is in English. From this finding, it seems that students need more opportunities to develop critical thinking ability in English.

Another concern emerging from this review, regarding this second area, relates to EMI in technical disciplines. Due to English being the language of science and technology (Zare-ee & Gholami, 2013), EMI seems to have been adopted at a faster pace by these disciplines (Kim & Sohn, 2009). However, as Chang (2010) notes, students from these fields have more difficulties in comprehending lectures than students in other non-technical fields. A limited vocabulary and a slow reading speed were identified as being the causes of this difficulty. This issue needs to be addressed by future policy makers; perhaps course specific support is the answer to this.

Both positive and negative comments have been made on the use of the first language on EMI courses (e.g. see Karabinar, 2008; Kim, 2011; Joe & Lee, 2012; Kim & Sohn, 2009; Somer, 2001). Evidently, different contexts have different needs for L1 use as well as different views on its need as a learning tool. One of the research questions explored by Kim (2011) was: "Can efficacy of EMI classes change depending on different levels of English and subjects?" (p.711). The author found that current EMI policy "leads unilateral and uniform education" (p.737) and thus does not give consideration to students' range of

abilities, or the demands of specific courses. Kim makes a distinction between EOI (English-Only Instruction) and EMI. In this distinction Kim advances L1 as a learning tool in EMI classes but with guidelines for usage. This places responsibility on the professors to adjust the course material according to the students' English ability, which implies that EMI classes need to be carefully prepared. However, according to Kim, this does not get taken into consideration with the trend of rapid EMI implementation as the focus is on improving university ranking rather than the students' specific needs on their EMI major courses.

As students and instructors face varying demands in their academic subjects, the type of EMI put into practice needs to be considered. Tamtan et al. (2012), conducted a comparative study of the literature on the implementation of EMI in higher education in Europe, Asia, and Africa. The aim of the study was to moot options regarding the implementation of EMI in engineering programs in Libya. It was found that commonalities shared by the 3 continents were that EMI increases motivation to study English, due to its international significance and career opportunities. Additionally, it gives students more exposure to English, which advances second language acquisition. It also encourages the transference of skills learned while learning the first language, which can be applied while studying the second language (see also Ibrahim, 2001). However, the 3 continents also share disadvantages: the lack of proficient teaching staff fail to develop both linguistic and academic content, and students encounter many difficulties relating to insufficient language knowledge, which may result in a lack of interest. The policy also threatens cultural identity as "it helps to convert the world into a 'global village', where people might forget their roots and culture" (Tamtan et al., p.1423). However, the authors suggest that a way in which these problems can be overcome is by questioning which type of EMI needs to be implemented, and with this they offer the choices between full and partial implementation. The indication of their research is that partial immersion seems to be favored. However, it would seem from above this has not been the case in Korea. Additionally, in Korea, Kim and Sohn (2009) and Kim et al. (2009), found that student satisfaction can be increased by offering the whole class in English. The reason being is that offering Korean supplementary material deters the students' English development.

What is clear from above is that different courses have different demands. Perhaps the specific demands can be negotiated between policy makers and instructors at the outset of

implementation. Alternatively, it could be negotiated between instructors and students, when they assess their L2 proficiencies at the beginning of the term. This implies that for EMI to be a success instructors and students need to have 'a voice' in what they teach and learn. Nevertheless, this would be a problem for international students on the course, who might not be proficient in the L1, should the enactment of partial EMI occur.

It is encouraging to see from the summary in table 3 that we see more evidence of the value of EMI emerging from the review. For instance, Zare-ee and Gholami (2013), found that it was valued by professors in Iran as it increased the potential of sharing international research. Tamtan et al. (2012) found that globally students valued the policy as it increased their motivation to study English as it gave them better career opportunities. In Flanders (Belgium), van Splunder (2010) found that students had a positive attitude to the policy after experiencing it. Perhaps we should question why EMI has been a success in some contexts but not in others. We have evidenced until now that students' and instructors' proficiency and the varying demands of academic subjects can effect this. However, what might also shape the success of the policy is the appropriateness of the methodology, for, as Mok (2007) states, students and professors should take responsibility for this to meet their specific needs. This also returns to the question regarding full or partial implementation which also plays a part in shaping the value of EMI policy.

Review Findings Relating to EMI Support

In viewing the results of the literature review heuristically, clearly EMI support is needed for the policy to be a success as there are issues with students' and instructors' proficiencies and the varying demands of different academic subjects.

AREA	AUTHORS	OPPORTUNITIES	CHALLENGES	LOCATION	METHOD
	Ball & Lindsay (2013)	Accreditation test to test the instructors ability to teach in L2. Support focuses on the teachers' linguistic needs and pedagogic issues. 3 day intensive support course offered focusing on oral skills. Longer support available.		Spain	Mixed
	Byun et al. (2011)		There has been little assistance for students and instructors who lack adequate English	Korea	Mixed

AREA	AUTHORS	OPPORTUNITIES	CHALLENGES	LOCATION	METHOD
			skills to meet the demands of EMI courses. Lack of support is due to financial constraints. Students had to seek and pay for own support.		
	Chang (2010)		Problems with a skills based support program. Students not satisfied with a General English course as it did not meet their EAP needs. Faculty needs support in L2 oral presentation skills.	Taiwan	Mixed
	Doiz et al. (2012)		Lack of support from the University authorities. Support needs to be in the form of economic support which provides competent teaching staff. Lack of insufficient support has been a trend throughout Europe.	Spain	Qualitative
	Evans & Green (2007)		Support is for general English (EFL) rather than academic English (EAP).	Hong Kong	Quantitative
	Ibrahim (2001)	'Bridging program' needed to help with proficiency issues and the demand of EMI courses. For success, students need to be introduced to EMI incrementally.	There is no system in place to support the students outside the EMI classroom.	Indonesia	Review
	Joe & Lee (2012)	Opportunity for students to merge English with the study skills needed to succeed academically by having a foundation course (not yet in practice).	Supportive courses are prevalent on ESL courses, but are lacking on EFL courses. EFL students need more support than ESL students because they have less contact with English and fewer English resources when out of the classroom environment.	Korea	Quantitative
	Kirkgöz (2009)	Inquiry based learning approach as a supportive program would be more effective in preparing the students for EMI (not yet in practice).	EAP curriculum inadequate in effectively preparing the students to deal with the academic content.	Turkey	Mixed
EMI SUPPORT	Klaassen & DeGraaff (2007)	Faculty members able to discuss anxiety issues, identify their weaknesses, and assess impact on students. Thus, they were more prepared for teaching in English.		Netherlands	Mixed
	Mellion (2008)		Funding was attributed to be a reason for the lack of support.	Netherlands	Qualitative

Table 4: A summary of discoveries from the systematic literature review concerning support

The summary presented in table 4 outlines that EMI support is being overlooked by policy makers. This lack seems to stem from inadequate funding. Byun et al. (2011) found that to meet the demands of EMI students or instructors who lack adequate English proficiency have been given little assistance. Their research revealed that even The Center for Teaching and Learning at Korea University lacked adequate support for the EMI courses which were being taught. The reason given for this was due to financial constraints, and consequently, the Center was unable to meet the demand of required support. This meant that students who required extra support on their EMI courses had to seek this from private language institutions at their own expense.

Mellion (2008) explored the reasons behind the discontinuation of an English bachelor program in Business Administration at Radboud University Nijmegen in the Netherlands. The research revealed that a lack of adequate support from the university board was an influence and that funding was attributed to be a reason for the lack of support. The students in this research suggested that if more programs are taught in English at the Master's level then when they are undergraduate students they should be enrolled in academic writing classes to meet this demand. This is something which the university did not support at the time of this research. A substantive finding of this paper states that if EMI is to be successful, then the required support for its success needs to be included in the curriculum.

Joe and Lee (2012) evidenced the students' call for a foundation course in general or medical English whereby a scaffolded English lesson would be given relating to the content of the lecture. This would enable the students to merge English with the study skills needed to succeed academically. The authors note that these type of supportive courses are prevalent on ESL courses, but are lacking on EFL courses, which is a concern. They further state that this needs to change as EFL students need more support than ESL students because they have less contact with English and fewer English resources when out of the classroom environment.

The general consensus in the review is that support for EMI needs to be EAP focused, thus focusing on the students' academic abilities, rather than on their English language skills. Kirkgöz (2009) even found problems with an EAP focused curriculum and suggests that an inquiry based learning approach would be more appropriate as it encompasses a "discourse-community driven philosophy" (p.92). This is seconded by a student in Ball and Lindsay's

(2013) findings who stated that "You understand it better when you're actually doing it yourself" (p.51). The literature also discusses positive supportive opportunities which could contribute to EMI success (see Ibrahim, 2011; Joe & Lee, 2012; Kirkgöz, 2009). Nevertheless, it is important to note that these are suggestions rather than what has emerged from current practice.

From table 4, it can be seen that faculty support is mentioned positively in some cases. For instance, Klaassen and DeGraaff (2007) mention that the faculty have opportunities to discuss anxiety and identify weaknesses. However, it is important to note that this kind of supportive discussion would not be applicable to all cultures. For instance, in some cultures discussing weaknesses could be a weakness within itself. Ball and Lindsay (2013) describe a rigorous framework of support available to the faculty in a Spanish University, which as 'an ideal', all institutions should actualize. However, with such 'an ideal' support framework in place, it is questionable why Doiz et al. (2012) report upon the same support in such a negative light. Perhaps this is an indication that faculty support for EMI needs much careful planning and consideration by responding to specific needs, rather than enacting support for support's sake. This review did not give any indication of how faculty support occurs in Asia which suggests that it is lacking in this continent.

A Holistic Perspective

The challenges emerging from EMI implementation presented in the literature review can be summarized as two main conflicting forces which are a lack of language proficiency and academic achievement due to a lack of support and a fixated pursuit of the policy with a lack of due diligence to students' specific needs, or to quote Nunan (2003) "a disjunction between curriculum rhetoric and pedagogical reality" (p.589). These two conflicting forces seem to support Piller and Cho's (2013) "relentless pursuit" argument. Reinforcing this point, it has been evidenced in this review that speed seems to be of the essence in implementing EMI policy as universities chase world ranking status.

Implementing with speed might have great benefits for the institutions, yet this systematic literature review indicates that this is not the same for the students. One case where EMI has

been a success is in Maastricht University (Wilkinson, 2013[4]). A reason attributed to Maastricht's success is because their EMI policy was accomplished with gradual implementation which took almost two decades. Taking time with EMI implementation was also discussed more generally in the literature. Evans and Morrison (2011) found that time was integral in enabling students to overcome their challenges. Moreover, Lasagabaster (2008) attributed the success of the EMI policy in the Basque Country to be early foreign language intervention, which again regards time as being a factor of success. It seems to me that when student proficiency is a challenge, Ibrahim's (2001) call for incremental exposure to EMI throughout a student's university life makes logical sense if the student is to benefit from the value of the policy. From the way policy makers have been 'rapidly implementing' EMI up until now, it is questionable whether they have accounted for the time it takes for the real value of EMI to materialize.

Conclusion

Given that the implementation of EMI in the higher education context has been a global trend since the millennium, the investigation into the policy's success is a current emerging area of research. Accordingly, it seems that a systematic review of the literature in this area is an extended contribution to this emerging field of knowledge. To summarize, I will outline the implications that the findings from the literature has for the South Korean context.

As noted in the section on EMI as a global trend, university ranking is used as a "measurement of internationalization" (Piller & Cho, 2013, p.36), which is why EMI implementation is being relentlessly pursued in Korea. However, this is the time for Korean policy makers to reflect on the success of the current outcomes. Perhaps, South Korean universities have increased their status in the world ranking tables as a result of EMI implementation and the number of programs they offer in English; nevertheless, what can also increase a position in the world ranking tables is the performance of a university's faculty and students on the international stage (albeit slowly). In this regard, South Korean policy makers need to ensure a firm foundation which provides a solid stage for the faculty and the students on which to perform. This foundation may consist of an evaluation of different EMI subjects taught by different departments at a particular University and an evaluation of the specific support which they require. This could then assist in the

---

[4] This source was not reported upon in the review as it did not report on any of Byun et al.'s (2011) three areas.

development of a program in the University to better support the specific academic needs of the students and faculty and the varying demands of each department's EMI course. Undertaking this suggested action may provide the foundation for a program which could strengthen implementation for future EMI courses internationally.

The lack of adequate support which is prevalent with the majority of EMI implementation seems to originate from a lack of funding. As Byun et al. (2001) state, EMI is now a prerequisite for universities when they wish to receive financial support from the government. However, perhaps universities need the foresight to anticipate the support that their EMI proposals require prior to requesting this funding. With this kind of pragmatic action, perhaps some of the funding can be allocated for the required support.

The question then remains, with adequate support what else needs to be considered as a criteria for success? The answer to this seems to be the appropriateness of the implementation. The literature has identified that in some cases both partial and full implementation can have different degrees of success in different contexts. Hence, how EMI is to be implemented needs to be decided on a case by case basis. What is clear is that the type of 'blanket' unilateral policy which has globally been the current practice of most implementation has been ineffective. Policy makers need to account for the demands that teaching in English has on faculty members. They also need to recognize that students have diverse needs on their particular EMI courses. This is key for the success of the policy. With this awareness, action can be taken to alter current practices. If no remedial action is taken, the current implementation impediments will continue unabated to the detriment of the real educational value of EMI.

Acknowledgements

References

Aguilar, M., & Rodriguez, R. (2012). Lecturer and student perceptions on CLIL at a Spanish university. *International Journal of Bilingual Education and Bilingualism*, *15*(2), 183-197.

Aguilar, M., & Muñoz, C. (2014). The effect of proficiency on CLIL benefits in engineering students in Spain. *International Journal of Applied Linguistics*, *24*(1), 1-18.

Airey, J., & Linder, C. (2006). Language and the experience of learning university physics in Sweden. *European Journal of Physics*, *27*(3), 553-560.

Altbach, P. G. (2005). Globalization and the University: Myths and Realities in an Unequal World. *The NEA 2005 Almanac of Higher Education*, 63-74.

Altbach, P. G. (2007). Globalization and the university: Realities in an unequal world. In *International handbook of higher education* (pp. 121-139). Dordrecht, The Netherlands: Springer Netherlands.

Altbach, P. G., Reisberg, L., & Rumbley, L. E. (2009). Trends in global higher education: Tracking an academic revolution. A Report Prepared for the UNESCO 2009 World Conference on Higher Education. Paris, France: UNESCO.

Althaus, S. L., Edy, J. A., & Phalen, P. F. (2002). Using the Vanderbilt Television abstracts to track broadcast news content: possibilities and pitfalls. *Journal of Broadcasting & Electronic Media, 46*(3), 473-492.

Ball, P., & Lindsay, D. (2013). Language demands and support for English-medium instruction in tertiary education. Learning from a specific context. In A. Doiz, D. Lasagabaster, & J. M. Sierra (Eds.), *English-Medium Instruction at Universities: Global Challenges* (pp. 3-24). Clevedon, United Kingdom: Multilingual Matters.

Bergin, M. (2011). NVivo 8 and consistency in data analysis: reflecting on the use of a qualitative data analysis program. *Nurse Researcher*, *18*(3), 6-12.

Byun, K., Chu, H., Kim, M., Park, I., Kim, S., & Jung, J. (2011). English-medium teaching in Korean higher education: policy debates and reality. *Higher Education*, *62*(4), 431-449.

Chang, Y. Y. (2010). English-medium instruction for subject courses in tertiary education: Reactions from Taiwanese undergraduate students. *Taiwan International ESP Journal*, *2*(1), 55-84.

Doiz, A., Lasagabaster, D., & Sierra, J. (2012). Globalisation, internationalisation, multilingualism and linguistic strains in higher education. *Studies in Higher Education*, *38*(9), 1-15.

Evans, S., & Green, C. (2007). Why EAP is necessary: A survey of Hong Kong tertiary students. *Journal of English for Academic Purposes*, *6*(1), 3-17.

Evans, S., & Morrison, B. (2011). Meeting the challenges of English-medium higher education: The first-year experience in Hong Kong. *English for Specific Purposes*, *30*(3), 198-208.

Hellekjær, G. O. (2010). Lecture Comprehension in English-Medium Higher Education. *Hermes–Journal of Language and Communication Studies*, *45*, 11-34.

Holsti, O. R. (1969). Content analysis for the social sciences and humanities. Reading, MA: Addison-Wesley.

Ibrahim, J. (2001). The Implementation of EMI (English Medium Instruction) in Indonesian Universities: Its Opportunities, its Threats, its Problems, and its Possible Solutions. *Jurusan Sastra Inggris, Fakultas Sastra, Universitas Kristen Petra*, *3*(2), 121-138.

Jensen, C., & Thøgersen, J. (2011). Danish university lecturers' attitudes towards English as the medium of instruction. *Ibérica*, *22*(22), 13-33.

Joe, Y. J., & Lee, H. K. (2012). Does English-Medium Instruction Benefit Students in EFL Contexts? A Case Study of Medical Students in Korea. *The Asia-Pacific Education Researcher*. Retrieved from 10.1007/s40299-012-0003-7

Kam, H. W. (2006). English language teaching in East Asia today: An overview. *Asia Pacific Journal of Education*, *22*(2), 1-22.

Kang, S. Y., & Park, H. S. (2004). Student beliefs and attitudes about English medium instruction: Report of questionnaire study. *Yonsei Review of Educational Research*, *17*(1), 33–53.

Karabinar, S. (2008). Integrating language and content: Two models and their effects on the learners' academic self-concept. In R. Wilkinson & V. Zegers (Eds.), *Realizing Content and Language Integration in Higher Education*. (pp.53-63). Maastricht University.

Kim, K. R. (2011). Korean Professor and Student Perceptions of the Efficacy of English-Medium Instruction. *Linguistic Research, 28*(3), 711-741.

Kim, S. K., & Sohn, S. Y. (2009). Expert system to evaluate English medium instruction in Korean Universities. *Expert Systems with Applications*, *36*(9), 11626-11632.

Kim, A., Son, Y. D., & Sohn, S. Y. (2009). Conjoint analysis of enhanced English Medium. Instruction for college students. *Expert Systems with Applications, 36*(6), 10197-10203.

Kimura, G. C. (n.d.). The increase of English-medium instruction in Japanese universities. Sophia University. Retrieved from http://esperantic.org/dosieroj/file/japan-kimura.pdf

Kırkgöz, Y. (2009). Students' and lecturers' perceptions of the effectiveness of foreign language instruction in an English-medium university in Turkey. *Teaching in higher education*, *14*(1), 81-93.

Klaassen, R. G., & De Graaff, E. (2001). Facing innovation: Preparing lecturers for English-medium instruction in a non-native context. *European Journal of Engineering Education*, *26*(3), 281-289.

Krippendorff, K. (2012). Content Analysis: An introduction to its Methodology. London, United Kingdom: Sage.

Lasagabaster, D. (2008). Foreign language competence in content and language integrated courses. *The Open Applied Linguistics Journal*, *1*(11), 30-41.

Lee, S. K. (2012). Review on Popular English-taught Courses. News & Forum. SNU Media. Seoul National University. 15 March. Retrieved from http://en.snu.ac.kr/snunews?bm=v&bbsidx= 72155&page=8

Manh, L. D. (2012). English as a Medium of Instruction in Asian Universities: The Case of Vietnam. *Language Education in Asia*, *3*(2), 263-267.

Mellion, M. J. (2008). The challenge of changing tongues in business university education. In R. Wilkinson & V. Zegers (Eds.), *Realizing Content and Language Integration in Higher Education* (pp. 212-227). Maastricht University.

Mok, K. H. (2007). Questing for internationalization of universities in Asia: Critical reflections. *Journal of Studies in International Education*, *11*(3-4), 433-454.

Nunan, D. (2003). The Impact of English as a Global Language on Educational Policies and Practices in the Asia-Pacific Region. *TESOL Quarterly*, *37*(4), 589-613.

Park, J. S. Y. (2009). *The local construction of a global language: Ideologies of English in South Korea*. Berlin, Germany: Mouton de Gruyter.

Park, J. K. (2009). 'English fever" in South Korea: its history and symptoms. *English Today*, *25*(1), 50-57.

Piller, I., & Cho, J. (2013). Neoliberalism as language policy. *Language in Society*, *42*(1), 23-44.

Riffe, D., Lacy, S., & Fico, F. G. (2005). *Analyzing media messages: Using quantitative content analysis in research.* Mahwah, NJ: Lawrence Erlbaum.

Sert, N. (2008). The Language of Instruction Dilemma in the Turkish Context. *An International Journal of Educational Technology and Applied Linguistics*, *36*(2), 156–171.

Slaughter, S., & Leslie, L. L. (2001). Expanding and elaborating the concept of academic capitalism. *Organization*, *8*(2), 154-161.

Somer, S. (2001). *The role of English-medium instruction in engineering and architecture courses at Anadolu University.* Unpublished Master's Thesis. Billkent University, Ankara, Turkey.

Tamtam, A. G., Gallagher, F., Olabi, A. G. & Naher, S. (2012). A Comparative Study of the Implementation of EMI in Europe, Asia and Africa. *Procedia-Social and Behavioral Sciences*, *47*, 1417-1425.

van Splunder, F. (2010). *English as a Medium of Instruction in Flemish Higher Education. Language and Identity management in a Dutch-Speaking Context.* PhD Thesis. Lancaster University, Lancaster, United Kingdom.

Wilkinson, R. (2013). English-medium instruction at a Dutch university: Challenges and pitfalls. In A. Doiz, D. Lasagabaster, & J. M. Sierra (Eds.), *English-Medium Instruction at Universities: Global Challenges* (pp. 3-24). Clevedon, United Kingdom: Multilingual Matters.

Zare-ee, A., & Gholami, K. (2013). Academic Justification for Preferring English as a Medium of Instruction by Iranian University Teachers. *Proceeding of the Global Summit on Education.* Kajang, Malaysia: Kolej Universiti Islam Antarabangsa Selangor.

About the author

Dylan Glyn Williams teaches EAP in the College English Program in the Faculty of Liberal Education at Seoul National University. He is currently undertaking his doctorate studies with the University of Manchester. His thesis is titled 'Understanding Students' English Medium Instruction (EMI) Experiences in South Korean Higher Education'. In addition to his research into EMI, he also conducts research into student autonomy and socio-cultural theory.