Research Article

English as a Medium of Instruction: Findings from a Systematic Review of Literature

Abstract: English as a medium of instruction (EMI) has given birth to researches because of its perceived significance in the international arena. This systematic review of literature accessed multiple databases to locate every study on EMI. A repertory grid was utilized to plot the responses to the posted research questions. Different areas of concern emerged from the grid: culture condition, content absorption, education transition, and parent facilitation. From these themes, the systematic review revealed the need to study or document the impact of EMI on culture of students and on content learning. EMI transition in educational levels, and parent’s participation in the EMI implementation are seen to be gaps of the reviewed studies. With these discoveries, it is still believed that there is still a wide area on EMI that needs to be studied.

Keywords: English as a Language of Instruction, English as a Medium of Instruction, Systematic Review of Literature.

INTRODUCTION

English language is now one of the most widely spoken languages in the world. Learners from different countries move from one English speaking countries to the other in order to learn or enhance their English, and to become competent in speaking English. The declaration of English as the international lingua franca gave birth to different language policies among educational institutions. English as a medium of instruction (EMI) is one of those language polices.

In some studies, EMI is also known as English-medium instruction. To understand further what EMI is, it is vital to understand the context of medium of instruction. Medium of instruction planning involves decisions about the language or languages (media) which will be used to teach language and content courses (Tollefson & Tsui, 2004; Hornberger, 2003; Cooper, 1989). Medium of instruction policies are ‘a key arena in which political conflicts among countries and ethnolinguistic, social and political groups are realized’ (Tollefson & Tsui, 2004). With these understanding of medium of instruction, EMI can be said as the use of the English language in the teaching and learning process.

In fact, EMI is defined as the use of the English language to teach academic subjects (other than English itself) in countries or jurisdictions where the first language of the majority of the population is not English (Macaro et al., 2018). In this context, English language now is being learned by learners not only in their English courses but also in their other courses that use it as medium of instruction. Indeed, using English as the Medium of Instruction (EMI) can contribute to promoting international mobility and improve the language competence of both lecturers and students (Cenoz, 2009).

Nowadays, policies and programs involving English as a medium of instruction (EMI) are truly a global phenomenon (Goodman, 2014). EMI is a growing global phenomenon in all phases of education and educational settings (Deardens et al., 2015). Globally more and more universities are caught up in the rush to offer both undergraduate and postgraduate programs through the medium of English (Lasagabaster et al., 2014; Earls 2016). The internationalization of Higher Education in countries where English is not the national language seems to be a synonym for the use of EMI (Costa & Coleman, 2012; Jensen & Thøgersen, 2011; Lasagabaster, 2012; Coleman, 2006). English has also become the international lingua franca and the main communication tool within Higher Education (Dafouz, 2015; Seidloher, 2004; Van Leeuwen & Wilkinson, 2003; Wilkinson, 2004).

The use of EMI is because of perceived need to internationalize the university in order to render it more prestigious; needing to attract foreign students because of falling enrolment numbers of home students through changing demographics, national cuts in HE investment; the need of the state sector to compete with the private sector; and the status of English as an international language, particularly in the domain of research publications (Macaro et al., 2018).
In the European Union (EU), the sharp rise in EMI programs in tertiary education can be attributed to the Bologna Process, a series of multi-national educational reforms initiated with the Bologna Declaration in 1999 (Council of Europe, 2014; Dafouz, Camacho, & Urquia, 2014). English as a medium of instruction has also emerged in Asian countries (Naun 2003). However, unlike in Europe, researchers have yet to thoroughly document EMI implementation in Asian countries (Byun et al., 2011). Nonetheless, other parts of the world instituted EMI because of the role of English in the international arena.

Coleman (2006) signaled the implementation problems associated with the ‘inexorable increase in the use of English’ HE. The rate of that increase has accelerated, and a number of commentators and researchers have referred to its dangers (Jenkins 2014; Graddol 2006). Erling and Hilgendorf (2006) noted some of these problems like students’ and some instructors’ inadequate language skills and insufficient opportunities for appropriate language training, particularly for those in need. Tsuneyoshi (2005) added insufficient assistance for students lacking adequate language skills, difficulty securing instructors who were both willing and able to lecture in English, lack of a suitable compensation system for EMI instructors, problems with meeting a multi-national student body’s diverse needs in EMI classes, and difficulty finding adequate EMI secretarial assistance as problems associated with EMI implementation.

Despite the problems associated with EMI, it is undeniable that the role and scope of English has grown immensely during the past few decades due to globalization and the concomitant increase in personal mobility and intercultural exchanges (Byun et al., 2011). English fulfills the need for an international medium of communication, thereby deepening its global influence and dominance as the preeminent language.

Finally, with EMI in the international education arena, various studies examined and evaluated its implementation, policies related to it and other aspects of it as perceived by stakeholders of education sector. Hence, conducting systematic literature review to be able to identify the unexplored areas of EMI for possible research and to provide a framework or background in order to appropriately position new research activities about it is imperative.

**OBJECTIVES**

This study aimed to conduct a systematic review of literature on English as a Medium of Instruction (EMI) as basis in identifying research gaps for further researches. Specifically, the study sought answers to the following:

1. What is the research problem of the article?
2. What was the objective of the study?
3. What research approach, method and design were employed in the conduct of the study?
4. What were the variables that were included in the study?
5. What were the major constructs that were dealt with in the study?
6. What were the key or salient findings of the study?
7. What were the recommendations for further investigation given by the study?
8. What were the limitations of the study?

**METHODOLOGY**

**Research Design**

This study employed the systematic literature review method. A systematic literature review (often referred to as a systematic review) is a means of identifying, evaluating and interpreting all available research relevant to a particular research question, or topic area, or phenomenon of interest. Individual studies contributing to a systematic review are called primary studies; a systematic review is a form of secondary study (Kitchenham, 2007).

Such method is also supported by Okoli and Schabram (2010) who distinguish a stand-alone literature review (systematic literature review) from the other two types of literature review for theoretical foundations for primary research and for graduate student theses. Accordingly, a stand-alone literature review, in its best form, becomes a much cited piece of work which researchers would seek out as a first clear outline of the literature when undertaking an investigation. Such free-standing reviews summarize existence evidence, identify gaps in current research and provide a framework for positioning research endeavors.

Finally, literature review is helpful in several ways. It not only helps researcher glean the ideas of others interested in a particular research question (through important research findings and theories), but it also lets them read about the results of similar or related studies (Panolong & Soliba, 2018). Literature reviews also give researcher ideas about areas where more research needs to be done. They refer to these as “gaps” in the literature (Fraenkel et al., 2012). Thus, the use of the method employed in this endeavor.

**Sources of Data**

Panolong and Soliba (2018) stated that to be able to meet the aims of this study, the search of multiple databases to locate every study on English as a medium of instruction was the first step done. Accordingly, the search process was based on the eligibility criteria that were established before the process of identifying, locating, and retrieving the
research needed to address the problem of evidence-based practice started. The eligibility criteria specified which studies will be included and which will be excluded from the systematic review—though the criteria were subjected to possible changes as the systematic review progressed through the early stages of the process, some of the criteria were fundamental to collecting a rigorous and defensible set of data for the review (Meline, 2006). The criteria used for including and excluding studies form the operational definition of the problem (Abrami et al., 1988), and they provide a clear guideline as to the standards of research that will be used to determine the researches that will be included in the review. The eligibility criteria were liberally applied in the beginning to ensure that relevant studies were included and no study is excluded without thorough evaluation; at the outset, studies were only excluded if they clearly meet one or more of the exclusion criteria (Panolong & Soliba, 2018).

Using critical evaluation approach that aims to include studies that meet some high methodological standard of quality (Slavins, 1987 cited by Meline, 2006), the inclusion criteria were not too broad and not too strict. Lam and Kennedy (2005) stated that if the inclusion criteria are too broad, poor quality studies may be included, lowering the confidence in the final result. If the criteria are too strict, the results are based on fewer studies and may not be generalizable. Hence, the specific inclusion and exclusion criteria were identified by the researcher in the process of retrieving the available data from the databases.

Finally, using English as a medium of instruction, medium of instruction and English instruction as keywords, 21 studies met the following initial inclusion and exclusion criteria:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Inclusion</th>
<th>Exclusion</th>
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<tbody>
<tr>
<td>Types of Research</td>
<td>Primary research that were published on peer reviewed journals and scientific papers.</td>
<td>Book reviews, abstracts, opinion pieces, news articles, literary reviews, and policy documents</td>
</tr>
<tr>
<td>Results of the Study</td>
<td>Research articles or scientific papers that dealt with the use of English language as medium of instruction.</td>
<td>Research articles or scientific papers that did not deal with the use of English language as medium of instruction.</td>
</tr>
<tr>
<td>Language</td>
<td>Research articles or scientific papers that used English language as a medium in writing</td>
<td>Research articles or scientific papers that did not use English language as a medium in writing</td>
</tr>
<tr>
<td>Data Base</td>
<td>Google scholar, ProQuest and other data bases that are accessible to the researcher</td>
<td>Data bases that are not accessible to the researcher</td>
</tr>
<tr>
<td>Time Frame</td>
<td>Research articles or scientific papers that were published from 2010 to 2018</td>
<td>Research articles or scientific papers that were not published from 2010 to 2018</td>
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The main consideration in the selection of articles as included in the inclusion criteria are articles from valid publications or those that have undergone a peer review process. Publications are necessary steps in the dialogue with other scientists about the approach and significance of research studies (Kalichman, 2001).

After ensuring that the research articles meet the above cited criteria, the quality of the papers were further evaluated for the selection of the final papers to be included in the review identified (Panolong & Soliba, 2018). At this phase, the criteria used in evaluating a scientific paper were considered. The papers should have at least the generally accepted structure of a scientific paper sectioned as: introduction, methods, results/findings and discussions (Sharp, 2002).

Finally, English as one of the media of instruction in bilingual or multilingual classrooms and studies on evaluation of policy on English as medium of instruction were also reviewed to further understand the context of the EMI.

**Data Gathering Instrument**

A repertory grid was utilized to plot the responses to the research questions posted. A repertory grid originally termed as Kelly’s Grid (1955) constitutes a highly innovative approach to the systematic assessment of individual personal constructs (Fransella et al., 2006).

**Data Gathering Procedure**

In the conduct of the study, different researches were retrieved from different online data bases using the identified search terminology. Then, the retrieved researches were evaluated based on the inclusion and exclusion criteria. After the researches are identified, the analysis was done using a repertory grid. Finally, coding to arrive at themes for the findings and gaps of the studies was done.

**Treatment of Data**

Though the data in the study do not consist of the personal constructs but rather the different answers to
the research questions, these data were analyzed to be able to identify the gaps in the researches that were conducted (Panolong & Soliba, 2018). These gaps were thematically analyzed and coded according to areas of concerns; hence, employing coding and thematization. Finally, frequency and percentage were used to describe the locale of the study.

RESULTS AND DISCUSSIONS

Findings

Coverage. There were 21 literature included in the study. Figure 1 shows the locale of the studies. The locale of the study is an integral part of the analysis to show the coverage of studies in mediation.

![Figure 1. Locale of the Studies](image)

Much published studies on EMI are Asia-based. (Norpaahi, Rahman, & Salija (2018); Joe & Lee (2013); Al-Kahtany, Faruk, & Al Zumor (2016); Botha (2016); Channa, Memon, & Bugnio (2016); Byun, Chu, Kim, Park, Kim, & Jung (2011); Hu & Lei (2013); Karamadi & Aminabhavi (2016); Lai (2013); Aritonang (2014); Hashmi (2016); Chun, Kim, Park, Mcdonald, Ha, & Kim (2017); Gul and Aziz (2015); Keuk & Tith (2013)).

On the other hand, 28% of the studies are Europe-based. (Macaro, Curle, Pun, An & Dearden (2018); Blattès (2018); Ament & Pérez-Vidal (2015); Goodman (2014); Kouassi (2016); Fernández-Costales (2017). Finally, one study is from Africa. (Owu-Ewie & Eshun, 2015)

Areas of Concern. The answers of the research questions were filled in the repertory grid. From this, similar areas of concerns were deduced and coded for the identification of gaps. Table 1 presents the areas of concerns of the studies.

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<tr>
<th>Areas of Concern</th>
<th>Article</th>
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**Design.** Twelve (12) studies employed the quantitative approach while nine (9) employed the qualitative approach in answering their research problems. The most common design of the quantitative studies is descriptive-survey while case study for qualitative studies. Other designs include pretest post-test experimental and discourse historical approach. The research techniques include interviews, observations, document analysis, questionnaire, tests, and focus group discussions. Purposive sampling and maximum variation were the pervading sampling techniques. Only one (1) study employed systematic review (Macaro et al., 2018) (Figure 2). Nonetheless, the designs used in the studies were explicitly stated, except for sampling techniques; thus the easier identification of the research methods for analysis.

![Research Approach](image)

**Figure 2.** Research Approach

**Recommendations and Limitations.** Recommendations for further investigation were present in most of the studies; however, the limitations of most studies were not explicitly stated.

**DISCUSSION**

With the identification of the different parts (problem, objectives, methods/ designs, findings, recommendations and limitations) of the studies and the ultimate goal of the literature review, gaps were ascertained. Interestingly, four themes emerged in the literature review: Culture Condition, Content Absorption, Education Transition, and Parent Facilitation.

**Culture Condition: The EMI in the Context of Multilingual Society:** Culture condition describes how EMI may affect the culture of multilingual students in a multilingual education. When an individual learns or is exposed to a language, his or her views may be changed. In fact, inherent structures in languages shape our thoughts without us realizing it; differences in languages seem to impact how people act and interpret their surroundings (Becker, 2010). After all, the language cannot exist without culture (Hayati, 2011).

In addition, Weiler (2018) underscores that every language has embedded cultural overtones. For him, these of course vary country to country, not just language to language, so the culture of a country will be expressed through the language. In the case of EMI, students are exposed to the culture embedded in it; hence, the tendency of acculturation among students. In fact, Bolbanabad & Hanifi (2014) also underscored that language as technical, social, cultural instrument has a special role in achieving cultural knowledge; this social phenomenon also has a particular importance in socialization and acculturation.

Moreover, Weiler (2018) argued that learning a language requires a learner to get a feel for the culture from which it comes; without an appreciation of that, learning a language can be more difficult. Accordingly, no matter how dedicated one might be to learning a language if he or she is not prepared to accept differences and open himself or herself to other ways of relating to people, then the language will just be harder to master. The adherences to one’s own preferred means of communication can be so strong that unconsciously there can be bias against another language or culture (Weiler, 2018).

Furthermore, Bolbanabad and Hanifi (2014) articulated that language and culture have a straight connection and
relation together, because language is an instrument for transmitting culture so no language can exist in the lack of culture. They also posited that the person’s ability of learning language is strongly based on their realizing level and their domination on culture. Hence, if someone has rich information in the field of language learning but neglect from cultural matter, this negligence causes awkward mistakes in learning language (Bolbanabad & Hanifi, 2014).

Above all, it is evident that researches on impact of EMI on the culture of students must be accounted for. The language, English in this review, is one of the instruments that changes by political and cultural evolutions (changes), and revolutionize during the human history (Bolbanabad & Hanifi, 2014). Nonetheless, we can acquire information about nation’s culture and the way that they thought just by analyzing their language and surveying its impact on the language (Bolbanabad & Hanifi, 2014).

Content Absorption: The Role of EMI in Content Learning. Content absorption describes how EMI effectively facilitates the absorption of content in different courses being taken by students: academic, professional, major courses.

As higher education institutions (HEIs) across the world strive to become increasingly international, Dafouz and Camacho-Milano (2016) underscored that English-medium instruction (EMI) is swiftly becoming mainstream in contexts where English has traditionally held a foreign language status. Accordingly, this change in the language of instruction has given rise to a number of concerns, which are still largely under-explored. One of these concerns is EMI in the context of content learning.

In his article, Galloway (2017) stated that many governments believe that EMI programs will improve students’ English proficiency, and therefore result in a workforce that is more fluent in English. She also highlighted that EMI is seen to give students a double benefit: knowledge of their subject and English language skills. Also, she articulated that governments, and students for that matter, think that this will make them more attractive in the global job market. However, there is little research into the impact of EMI on how much English students learn, and how much content they absorb; provision is definitely outpacing empirical research (Galloway, 2017).

Finally, the reviewed studies described EMI in language learning as teachers teach academic courses through EMI. This is what the studies revealed as the content and language integrated learning (CLIL). The success of this phenomenon was only determined though self-rating reports or perceptions of the key players of education. In fact, from 83 higher education studies that Macaro et al., (2018) included in their systematic map, only seven have in some way measured the impact, via objective language tests, that EMI programs have had on English language learning or English language proficiency. Again the focus was on English language learning or English language proficiency, and handful of studies embed self-assessed performance Macaro et al., (2018). Hence, it is also worth noting that there is a dearth of studies using other research designs and techniques of testing EMI’s effectiveness rather than merely self-reflective surveys.

Educational Transition: The EMI Condition in the Different Levels of Education. Educational transition highlights the unexplored area of research on EMI among students as they move from elementary to high school, and high school to college.

Interestingly, the reviewed studies dealt with EMI on the abovementioned different levels of education. EMI was studied in separate levels. This means that the studies focused only on specific course, year level or degree programs where EMI was instituted. Clearly, studies on progression of EMI and students’ cognition and behavior remain unexplored; if there are, just glimpses.

Macaro et al., (2018) revealed that there is a need for more studies which document transition from secondary education to higher education. They further underscored that higher education EMI cannot be considered in isolation from what has come before in the same way that future reviews of secondary EMI cannot ignore the possible downward pressures from HE.

More so, Dearden and Macaro (2016) questioned whether EMI in higher education is gradual progression in student competence to thrive in an EMI environment or a sudden shock with permanently negative consequences, as some teachers have commented. This is because of the unexplored concern of EMI in the context of student’s transition from one educational level to the other.

Hence, this review underscores the need to study the document EMI transition from secondary education to higher education, and how it affects students.

Parent Facilitation:

The Participation of Parents in Teaching their Children through EMI. Parent facilitation underscores the role of parents in facilitating EMI. This also describes how parents facilitate learning of different content areas using EMI. Last, it talks about parent’s role in teaching the four macro skills using EMI.

In the learning of students, parents facilitate it through their active involvement in the academic and extracurricular lives of their children. This is seen in the context of helping their children do their school-related
outputs. Offering education support to children from their parents, concerning issues such as homework, would help children to create an everyday routine of learning (Ceka & Murati, 2016).

Parents role in child learning is never underrated. In fact, Ceka and Murati (2016) posited that parents take a crucial stand, when it comes to their children’s development and education as whole, as the parents themselves are the ones to take care on the overall children physical and intellectual development, till the point they get independent and ready to face the challenges of the society they live in. Parents are aware of the work on the development of children; hence, in order to have good results at school, the parental control over the child needs to be permanent (Ceka & Murati, 2016).

Aside from teachers, parents select and organize stimuli that they consider appropriate for the child, shape them and present them in the ways considered most suitable to promote learning (Williams&Burder, 1997). The positive feedback of parents on their children’s reading enhances children’s motivation and stimulates their thinking (Abu-Rabia and Yaari, 2012).

From all what was said so far, we may conclude that the education the premises of a family life has … its contribution to the overall child raising up and education, which is crucial to proper formation of children’s personality and further on, his or her preparation for leading an independent life (Ceka & Murati, 2016). In various family environments, children do acquire a variety of experiences, through performing various activities and is constantly exposed to a range of influence and expectations from the people he/she cohabits (Ceka & Murati, 2016). Hence, this review highlights the need to explore the parent’s participation in EMI implementation.

CONCLUSION

Using a systematic literature review, this paper attempted to identify gaps for further investigations on EMI in teaching higher education courses. As international coverage of available literature in this area could be found, certain limitations emerge; thus making it open for worthy areas of research (Panolong & Soliba, 2018).

EMI in the education arena remains steadfast as it tries to meet the demand of the global education and economy. It is evident that the world is continuously adapting with trends and development in education through institutionalizing EMI in the education sector. With this scenario, researches emerged revealing problems, challenges, attitudes, views and perceptions on EMI implementation that this systematic review revealed.

Through this review, the impact of EMI on culture of students and on content learning, EMI transition in educational levels, and parent’s participation in the EMI implementation are seen to be gaps of the reviewed studies.

In such light, this review forwards that there are still much unexplored areas in EMI forward. Hence, the Philippines is a workable avenue for such kind of research.

REFERENCES


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