

# English medium of instruction (EMI) in Indonesian public junior secondary school: Student's language use, attitudes/motivation and foreign language outcomes

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# Overview

- Background & research context
- Literature review
- Questions for the study
- Methodology
- Findings
- Conclusions & recommendation

# Background & research context

- Increasing trends of implementing **bilingual education (BE)** programs often also referred to as:
  - **dual language education** (Lindholm-Leary 2001; Genesee 2009) or
  - **bilingual immersion** (May 2008)including **variants**, referred to with different descriptors, such as:
  - **one way/two way immersion** (Fortune&Tedick 2009)
  - **content & language integrated learning (CLIL)** (Seikkula-Leino 2009), and distinguishing in relation to the languages involved, eg.
    - **English medium of instruction (EMI)** (Wannagat 2007)
    - **Teaching English for Maths and Science** (Hashim, 2009)

not only in North America & Europe but also in Asian & African countries.

# EMI in Indonesia

- Started in 2006 - National Education Law 20/3, 2003 (DPGSEM 2009)
- Conducted at the 'international standard school' (SBI)
- A form of content-based FL learning through English medium of instruction (EMI)
- Focus on certain subjects, such as maths & science
- Aims – Content subjects & linguistic competitiveness

# EMI in Indonesia: Unique features

- Location
  - EMI & non-EMI - one school
- Resources – content subject teacher – principal appointment
- Poor human resources - teachers have limited English proficiency

## Some evidence:

- TOEFL test results of 260 SBI principals – 90% scored <245, only 10% got good results (Pena Pendidikan 2009)
- IELTS test results of 40 SBI teachers – 80% scored between 2.5 -3.5, only 20% scored 4.0- 4.5 (Pena Pendidikan 2009)
- Studies by Sundusiyah (2010) & Kustulasari (2009) - the majority of SBI teachers have limited English

# LITERATURE REVIEW

## Student language use

- Several important factors may influence the outcomes of L2 learning including socio-psychological aspects, such as identity, attitude, and motivation and their impact on language use (Butler 2004)
- Studies on student language use showed - Immersion students feel more comfortable and confident in using SL/FL in non-school contexts (Genesee 1984; Swain&Lapkin 1982)
- Immersion students tend to use L1 when interacting with each other & L2 primarily in their academic activities – a form of ‘diglossia’ (Tarone&Swain 1995)
- In one-way immersion (e.g Broner & Tedick 2011) & in dual way immersion (e.g Christian et al 1997) - the higher the grade the more L2 students use in the classroom activities.

# Attitude/motivation

- The concepts of 'attitude' , 'motivation' & 'learning orientation' often used interchangeably (Belmechri &Hummel 1998; Noels 2001)
- Gardner & Lambert (1972) - pioneers of motivational theory in language learning, e.g classified motivation into 'integrative' & 'instrumental'
- Tremblay & Gardner (1995) put both instrumental and integrative motivation into attitude,
- Gardner, Tremblay, & Masgoret (1997) put only integrative motivation as an aspect of attitude.

So, the way attitude and motivation are distinguished depends on the model developed

## Continued...

- Gardner (2000) - Two main variables which are predicted to influence motivation: 'integrativeness & 'attitude toward learning situation'
- Motivation affected by: 'the person's cognitive thinking', 'behaviour' & 'context' (Dornyei 2003), so conceptualised as more complex and multifaceted than simplistic distinctions, such as integrative vs instrumental, including in FL contexts.

## Research of the effectiveness of BE/Immersion/EMI programs

- No negative effect on the learner's L1 development (e.g Seikkula-Leino 2007), may even have a positive effect (e.g Harley, Hart, & Lapkin 1986).
- Improve L2; no negative effect on L1 (e.g Admiraal, Westhoff & deBot 2006)
- Improve L2 & content subjects (eg Bostwick 2005)
- Positive to L2& L1; negative on content subjects (e.g. Marsh, Hau & Kong 2000)
- Problematic politically and with mixed outcomes (e.g Hashim 2009)

This paper focus only on the learner's FL (English) outcomes

# Rationale for the current study

- Most of the previous studies have shown that BE programs can improve student FL outcomes.
- The successful implementation in previous studies mentioned above was in the context of teacher's second language proficiency is native-like or near native-like.
- In EMI in Indonesia, however, most of the teachers have relatively limited proficiency in English (Pena Pendidikan 2009; Sundusiyah 2010; Kustulasari 2009)

# Questions of the current study

- To what extent can English medium of instruction (EMI) be successfully implemented in a foreign language context, such as Indonesia, where the English proficiency of the teacher workforce is comparatively low?”
- Is there any relationship between student language use, attitude and motivation and the student’s FL outcomes?

In the context of this study, “successfully implemented” is defined to mean that the students’ FL (English) learning outcomes in an EMI program are superior to those of students learning EFL in a non-EMI program.

# METHODOLOGY

# Research design, setting & participants

- Multiple case study research design
- 3 SBI junior secondary schools in South Sulawesi Province
- one school (inner urban), one school (suburban), & one school (rural areas)
- Participants:
  - grade 9 students in 2010/2011 academic year
  - maths & science teachers who teach in EMI programs

# Data collection & analysis: Mixed method

## Data collection

- Quantitative:
  - National exam results obtained from school records - 853 students (234 EMI & 619 non EMI) – comparing the exit score (after grade 9) between EMI & non-EMI students
  - Student questionnaires – (82 EMI & 97 non-EMI students)
- Qualitative:
  - Teacher interviews - (12 EMI teachers)
  - Student group interviews - 24 EMI students, divided into 6 groups

## Data analysis

- Student scores & questionnaires (SPSS)
- Student group interviews & teacher interviews (NVivo)

# FINDINGS & DISCUSSION

# RQ 1. Foreign language (English) outcomes

Table 1: Students National exam results for English

School	Program	n	mean	Std deviation	Std mean error	Sig (2-tailed)
A	EMI	92	9.2326	.39142	.04081	.003
	Non-EMI	210	9.0476	.53760	.03710	.001
B	EMI	92	9.2348	.23225	.02421	.000
	Non-EMI	195	7.6969	.31145	.02230	.000
C	EMI	50	8.7360	.33671	.04762	.000
	Non-EMI	214	8.5495	.27352	.01870	.001

(Source: School records, 2011)

## Teacher comments on their students' FL (English) achievement

- Most of the EMI students improved their English

*“if we look at the individual achievement, some students increase and some others decrease, but the number of those who increase is higher”* (a maths teacher in school C, interview, August 2010)

*“of course improved, because in the past they just got English subject, but now they are learning maths and science in English and this leads to the improvement on their vocabularies”* (a science teacher in school A, interview, August 2010).

*“In regular classes, they use English as a subject, while in the EMI programs, all mathematics and science subjects are in English, as a consequence they always hear English”* (a maths teacher in school B, July 2010)

## Another example:

- The student English improved because they have more extra time to developed their skills outside the schools.

*“Yes, improved because they attended private English course”* (a science teacher in school B, July 2010)

*“the students in this school creatively developed their own skills through English course, and as a result many students are better than their teachers”* (a maths teacher in school A, August 2010)

*“Improved ... they have a high motivation to learn English, I can see from the number of the students who join private English course either inside or outside the school”* (a science teacher in school C, interview, August 2010)

## RQ 2.1 Student language use

Table 2: The percentage of language use with parents at home

Language use with parents	School A		School B		School C	
	EMI, n=26 (%)	Non-EMI, n=32 (%)	EMI, n=31 (%)	Non-EMI, n=33 (%)	EMI, n=25 (%)	Non-EMI, n=32 (%)
Indonesian & local language(s)	20.0	25	25.9	43.3	56.0	53.8
Indonesian only	72.0	71.4	66.7	56.7	44.0	46.2
Indonesian & English	8.0	3.6	7.4	0.0	0.0	0.0
English only/mostly English	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

(Source: Student questionnaire responses, 2010)

Table 3: The percentage of students language use with brother and sister at home

	School A		School B		School C	
	EMI, n=26 (%)	Non-EMI, n=32 (%)	EMI, n=31 (%)	Non-EMI, n=33 (%)	EMI, n=25 (%)	Non-EMI, n=32 (%)
Indonesian & local languages	16.0	19.4	25.9	36.7	36.0	46.2
Indonesian only	64.0	70.9	63.0	63.3	56.0	53.8
Indonesian & English	16.0	9.7	11.1	0.0	8.0	0.0
English only/mostly English	0.0	0.0	0.0	0.0	0.0	0.0
Total	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
No brother or sister	4.0	3.6	0.0	0.0	0.0	0.0

(Source: Student questionnaire responses, 2010)

Table 4: The percentage of students language use with teachers at school

Language use with teacher	School A		School B		School C	
	EMI, n=26 (%)	Non-EMI, n=32 (%)	EMI, n=31 (%)	Non-EMI, n=33 (%)	EMI, n=25 (%)	Non-EMI, n=32 (%)
Indonesian & local language(s)	3.8	10.7	3.7	16.7	8.0	19.2
Indonesian only	24.0	71.4	22.2	73.3	32.0	80.8
Indonesian & English	72.2	22.2	74.1	10.0	60.0	0.0
English only/mostly English	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

(Source: Student questionnaire responses, 2010)

# Data interpretation

- Data in Tables 2, 3 & 4 above indicated that EMI students use FL (English) more often than their counterpart in non-EMI programs both at home and at school.
- Students in urban areas (school A&B) spoke more in a mix of languages (English&Indonesian) than students in rural areas
- In contrast, students in rural areas (school C) use local language(s) & Indonesian more often than students in urban areas

# Students comments on their language use

- English was mostly used in the classrooms when studying maths and science. For example:

*"In the classroom, I usually use English* (an EMI student in school A, July 2010)

*"If the teachers asked in English we have to try our best to answer in English, if we cannot then we can mix between Indonesian and English"* (an EMI student in school C, interview, July 2010)

## Continued...

- Outside the classroom, such as in the 'cafeteria' and 'playground' , the students used mostly Indonesian.

*I used English and Indonesian at the break time (in playground) but I used mostly bahasa Indonesia* (an EMI student in school B, interview, July 2010)

- At home they spoke mostly local language(s) or Indonesian

*"I mostly used Indonesian and sometimes local language with my parents at home"* (a student in school C, interview, July 2010)

*"At school I used English, but at home I used Indonesian"* (an EMI student in school A, interview, August 2010)

## RQ 2.2 Attitude/motivation

Table 5: Mean score of student learning orientation

(5 points Likert-scale: Strongly disagree=1, Disagree=2, Neutral/Not sure=3, Agree=4, Strongly agree=5)

	School A		School B		School C	
	EMI, n=26 (%)	Non-EMI, n=32 (%)	EMI, n=31 (%)	Non-EMI, n=33 (%)	EMI, n=25 (%)	Non-EMI, n=32 (%)
Instrumental	4.13	4.05	4.00	3.67	3.84	3.78
Integrative	2.41	2.05	2.49	2.28	2.49	2.08

(Source: Student questionnaire responses, 2010)

## Attitude&motivation:

Students comments on their attitude/motivation in learning English

(Source: Student group interview, July 2010)

- Most of the students responded that they learned English based on instrumental orientation. For example:

*“ For me it depends, for example (pause) English is important if we want to look for a job...to be... an ambassador, we must be fluent in English, but for Indonesian, it depends on what kind of subject they want to be studied, for instance Indonesian Literature, they must master Indonesian. So, I think it depends on the needs “*

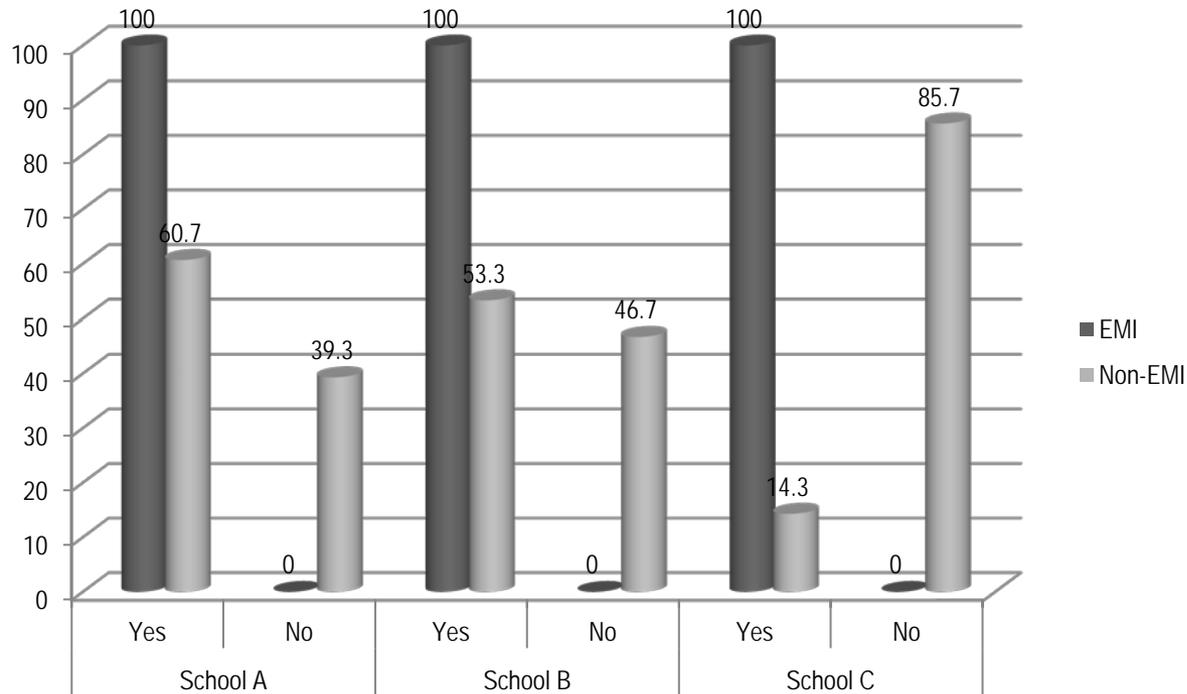
(an EMI student in school A, July 2010)

## Continued...

*"Both of them are important, for Indonesian because here we use it everyday, isn't it? In contrast, English is used when we go overseas"*  
(an EMI student in school B, interview, July 2010)

*"We can not separate from Indonesian as it is our own national language, but English is also important because it is an international language. Although Indonesian is important, we want to be internationally recognised and more developed, then we really need this "* (an EMI student in school C, interview, July 2010)

# Figure 1: The percentage of students attending additional English courses outside school



(Source: Questionnaire responses, 2010)

# Data interpretation

## Overall results suggests:

- Limited evidence of integrative motivation towards learning English;
- Instrumental orientation to learn English appears to dominate and tends to be stronger in the EMI groups; and
- there was only slight variation between the responses of the urban and rural school students.

This finding is contrary to Gardner & Lambert (1972) that integrative orientation is more powerful. The finding supports Dornyei (2003) – evidence that EMI students more proactively seek opportunities to learn English, even though their motivation is more instrumental than integrative.

# CONCLUSIONS & RECOMMENDATION

# Conclusion

- Based on the statistical analysis of their national exam results, the EMI students performed better in their EFL achievement compared to their counterparts in non-EMI programs.
- Instrumental orientation is more dominant as student motivation
- Evidence of a 'diglossia' phenomenon where SL/FL predominantly used in the academic context, and L1 is dominant in more informal situation
- Findings suggest that by joining this program, the EMI students achieved a higher frequency of English language use both at home and at school, a more positive attitude toward English and higher motivation to learn English.
- There was no significant different of attitude/motivation in FL learning between students in urban and rural areas, but urban students showed more FL language use both at home and at school than their counterpart in rural areas.

# Recommendation

- Further research is warranted to understand whether the greater use of English and achievement in English primarily results from the greater exposure to English of the EMI students, including through extracurricular activities, or as a result of the teaching and learning in EMI classroom.
- Since EMI is one model of CLIL which usually aims not only at improving the students' linguistic achievement but also their academic achievement, further study is needed to evaluate the effectiveness of the program in achieving its second aim of improving the students' content subject learning in contexts where teachers have limited English proficiency, such as Indonesia.

THANK YOU

Questions, comment or suggestions

# References

- Admiraal, W, Westhoff, G & deBot, K 2006, 'Evaluation of bilingual secondary education in the Netherlands: Students' language proficiency in English', *Educational Research and Evaluation*, vol. 12, no. 1, pp. 75-93.
- Anam, S 2009, 'Wawancara Surya Dharma, MPA, PhD, Direktur Tenaga Kependidikan Depdiknas: memberi nilai tambah rintisan SBI', *Pena Pendidikan*, 30 September
- Belmechri, F & Hummel, K 1998, 'Orientations and motivations in the acquisition of English as a second language among high school students in Quebec City', *Language Learning*, vol. 48, no. 2, pp. 219-44.
- Bostwick, M 2005, 'What is immersion?', in J Cohen, KT McAllister, K Rolstad & J MacSwan (eds), *ISB4: Proceedings of the International Symposium on Bilingualism*, Cascadilla Press, Somerville MA, USA, pp. 1-4.
- Broner, MA & Tedick, DJ 2011, 'Talking in the fifth-grade classroom: Language use in an early, total Spanish immersion program', in DJ Tedick, D Christian & TW Fortune (eds), *Immersion education: Practices, policies, possibilities*, Multilingual Matters, Bristol.
- Butler, YG 2004, 'What level of English proficiency do elementary school teachers need to attain to teach EFL? Case studies from Korea, taiwan, and Japan', *TESOL Quarterly*, vol. 38, no. 2, pp. 245-78.
- Clement, R & Kruidenier, BG 1985, 'Aptitude, attitude, and motivation in second language proficiency: A test of Clement's model', *Journal of Language and Social Psychology*, vol. 4, no. 1, pp. 21-37.
- Csizer, K & Dornyei, Z 2005, 'The internal structure of language learning motivation and its relationship with language choice and learning effort', *The Modern Language Journal*, vol. 89, no. 1, pp. 19-36.
- Dalton-Puffer, C 2007, *Discourse in content and language integrated learning (CLIL) classrooms*, John Benjamins Publishing Company, Amsterdam.
- DGPSEM 2009, *Sistem penyelenggaraan Sekolah Bertaraf Internasional untuk pendidikan dasar dan menengah [Implementation system for international standard school in elementary and secondary education level]* Directorate General for Primary and Secondary Education Management (DGPSEM). Jakarta.

## Continued...

- Dornyei, Z 2003, 'Attitudes, orientations, and motivation in language learning: Advances in theory, research, and application', *Language Learning*, vol. 53, no. 1, pp. 3-32.
- Fortune, TW & Tedick, DJ 2009, 'One-way, two-way, and indigenous immersion: A call for cross-fertilization', in TW Fortune & DJ Tedick (eds), *Pathways to multilingualism: Evolving perspectives on immersion education*, Multilingual Matters Ltd, Clevedon, pp. 3-21.
- Gardner, RC & Lambert, WE 1972, *Attitudes and motivation in second-language learning*, Newbury House Publishers, Rowley, Massachusetts.
- Gardner, RC 2000, 'Correlation, causation, motivation, and second language acquisition', *Canadian Psychology*, vol. 41, pp. 10-24.
- Gardner, RC, Tremblay, PF & Masgoret, AM 1997, 'Towards a full model of second language learning: An empirical investigation', *Modern Language Journal*, vol. 81, pp. 344-62.
- Genesee, F 2009, 'Dual language in the global village', in TW Fortune & DJ Tedick (eds), *Pathways to multilingualism: Evolving perspectives on immersion education*, Multilingual Matters Ltd, Clevedon, pp. 22-45.
- Genesee, F 1984, 'Beyond bilingualism: Social psychological studies of French immersion programs in Canada', *Canadian Journal of Behavioural Science*, vol. 16, no. 4, pp. 338-52.
- Hakuta, K 1983, 'Methodologies for studying the relationship between bilingualism and cognitive flexibility', *TESOL Quarterly*, vol. 17, no. 4, pp. 679-81.
- Harley, B, Hart, D & Lapkin, S 1986, 'The effects of early bilingual schooling on first language skills', *Applied Psycholinguistics*, vol. 7, no. 4, pp. 295-322.
- Hashim, A 2009, 'Not plain sailing: Malaysia's language choice in policy and education', in L Lim & E-L Low (eds), *Multilingual, globalizing Asia: Implications for policy and education*, John Benjamins Publishing Company, Amsterdam, vol. 22, pp. 36-51.
- Kustulasari, A 2009, 'The international standard school project in Indonesia: A policy document analysis', Master thesis, Ohio State University.

## Continued...

- Lindholm-Leary, KJ 2001, *Dual language education*, Multilingual Matters Ltd, Clevedon.
- Masgoret, AM & Gardner, RC 2003, 'Attitudes, motivation, and second language learning: A meta-analysis of studies conducted by Gardner and associates', *Language Learning*, vol. 53, no. 1, pp. 123-63.
- May, S 2008, *Bilingual/Immersion education: What the research tells us*, eds J Cummins & NH Hornberger, Springer Science, <<http://0-www.springerlink.com.library.vu.edu.au/content/pj85556182584420/>>.
- Noels, KA 2001, 'Learning Spanish as a second language: Learners' orientations and perceptions of their teachers communication style ', *Language Learning*, vol. 51, pp. 107-44.
- Seikkula-Leino, J 2007, 'CLIL learning: Achievement levels and affective factors', *Language and Education*, vol. 21, no. 4.
- Sundusiyah, A 2010, 'Teachers in International-Standard Schools: What is missing? What can be improved? What does it take?', paper presented to International Conference of Indonesian Students (KIPI), Melbourne.
- Swain, M 1985, 'Communicative competence: Some roles of comprehensible input and comprehensible output in its development', in SM Gass & CG Madden (eds), *Input in second language acquisition*, Heinle & Heinle, Boston, MA.
- Swain, M & Lapkin, S 1982, *Evaluating bilingual education: A Canadian case study*, Multilingual Matters, Clevedon, England.
- ---- 2005, 'The evolving sociopolitical context of immersion education in Canada: some implications for program development', *International Journal of Applied Linguistics*, vol. 15, no. 2, pp. 169-86.
- Tarone, E & Swain, M 1995, 'A Sociolinguistic Perspective on Second Language Use in Immersion Classrooms', *The Modern Language Journal*, vol. 79, no. 2, pp. 166-78.
- Tremblay, PF & Gardner, RC 1995, 'Expanding the motivation construct in language learning', *The Modern Language Journal*, vol. 79, no. 4, pp. 505-18.
- Wannagat, U 2007, 'Learning through L2-content and language integrated learning (CLIL) and English as medium of instruction (EMI)', *The International Journal of Bilingual Education and Bilingualism*, vol. 10, no. 5, pp. 663-82.

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