Developing a teaching assessment framework for EMI programs in Taiwanese HE

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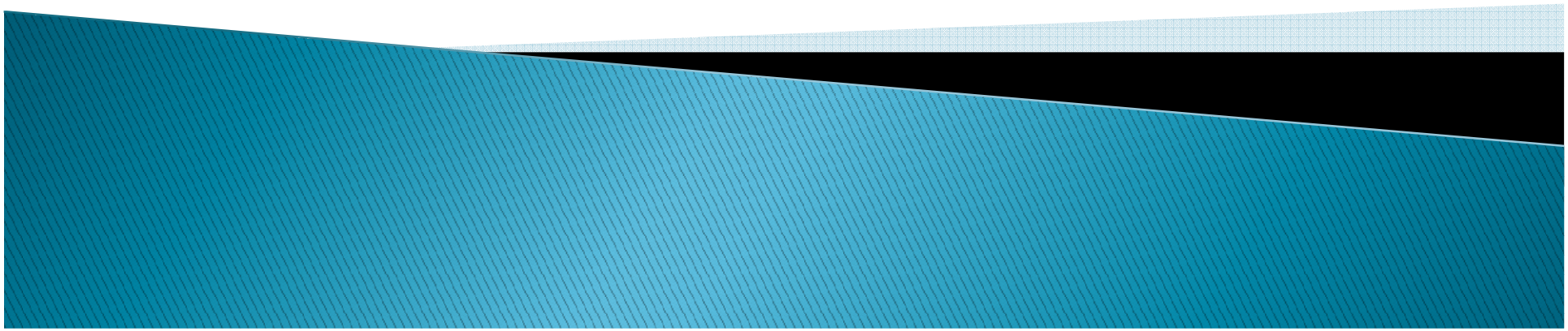

Outline

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Introduction

EMI programs in Taiwanese HE

- Academic globalization
- National policy to promote EMI programs
- International programs recruiting also local students
- Evaluation of EMI programs
- Funding support as incentives
- Seek more program quantity than quality
- EMI practices across universities ungoverned
- No assessment standards available

Introduction

Problems with EMI Programs

- Curriculum design
- EMI teacher qualifications not addressed
- Student motivation & learning results not addressed
- Evaluation of teaching quality and effectiveness not addressed

Rationales

- Assessment standards and model yet to be desired
- Understanding stakeholder perspectives to assessment standards/criteria
- Critical measure for EMI quality assurance

Method

Review of prior models on CLIL assessment

- Seek a prior assessment model as a preliminary framework
- *Milne, Llinaries, and Morton (2010)*
- *Kling & Hjulmand (2008)*
- *Ludbrook (2009)*
- *De Graaff, Koopman, Anikina, and Westhoff (2007)*
- *Lucietto (2008)*
- *Lorenzo, Casal, and Moore (2010)*
- *Hughes (2007)*

Method

Review of prior models on CLIL assessment

- Common in underscoring some aspect of teaching competence
- Divergent in focus on skills or strategies, or aspects of teaching performance
- *Lorenzo et al (2010)* also addressed ***assessment of learning change*** and how well learning objectives were accomplished
- *Hughes (2007)* incorporated ***attitude*** into the model

Method

Qualitative Interview

- 6 EMI teachers from STUST
- 2 from each of the 3 colleges
- Completing the preliminary model with assessment indicators

Method

Delphi technique

- 3-round intensive survey
- Panel of 30 experts
- 3 stakeholders
  - *EMI teachers*
  - *Assessment specialists*
  - *Teacher evaluation administrators*
- Delphi survey questionnaire
  - *6-point Likert-scale*
- Panel formation

Panel formation

Teaching/Assessment Expert	ELT Expert			4
	Language Assessment Researcher			4
	Subtotal		**8**	
EMI Teachers	Engineering	Public	Tech/Vocational Univ (TVU)	1
			Conventional Univ (CU)	1
		Private	TVU	1
			CU	1
	Business/ Management	Public	TVU	1
			CU	1
		Private	TVU	1
			CU	1
	Humanities	Public	TVU	1
			CU	1
		Private	TVU	1
			CU	1
	Others	Public	TVU	1
			CU	1
		Private	TVU	1
			CU	1
	Subtotal		**16**	
Teacher Evaluation Administrator	Public			3
	Private			3
	Subtotal		**6**	6
Total				**30**

Method

Analytic Hierarchy Process (AHP)

- Based on results of the Delphi process
- AHP QN instrument
- Assigning pairwise relative importance across 3 levels of indicators
- On a 9-point scale from

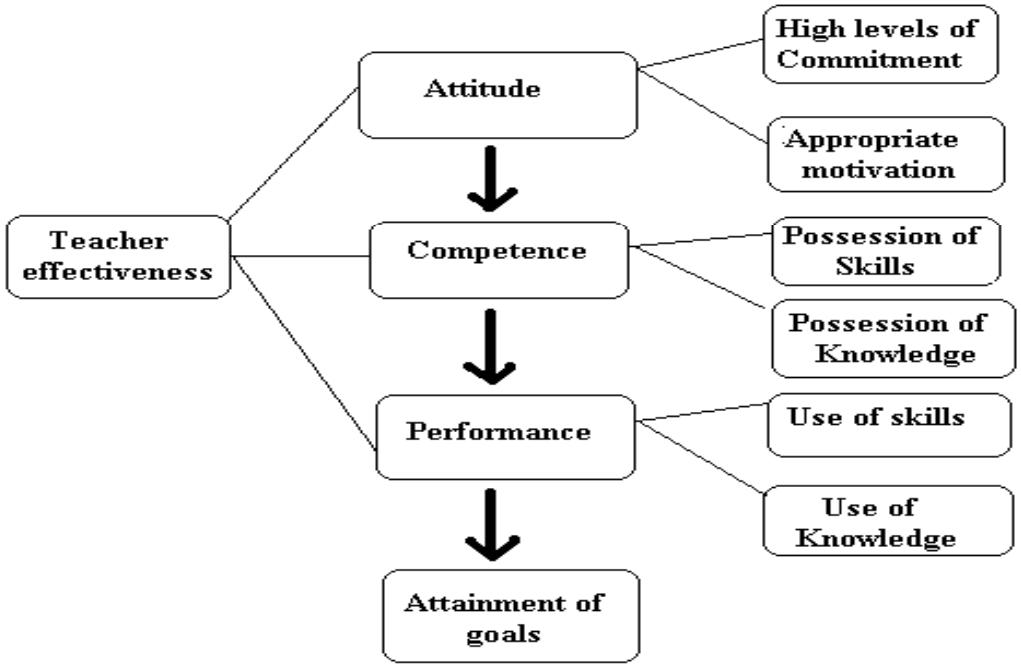
  Extreme Importance (9:1) to

  Extreme Unimportance (1:9)
- Data analysis using *Expert Choice 2000*

Result / Review of prior models (1/2)

Teacher effectiveness asssment model

- ***Hughes(2007) best fits into the context and background of EMI practices in Taiwanese HE***



Hughes (2007) 's Components of Teacher Effectiveness

Result / Review of prior models (2/2)

Preliminary assessment framework (3-level)

Component	Sub-component	Indicators
Attitude	*Commitment*	3 ~ 6
	Motivation	3 ~ 6
Competence	*English Proficiency*	3 ~ 6
	Content Knowledge	3 ~ 6
Performance	*Delivery Skills*	3 ~ 6
	Course Management	3 ~ 6
	Learning Assessment	3 ~ 6
Goal Attainment	*Content Learning Progress*	3 ~ 6
	English Learning Progress	3 ~ 6

Result / Qualitative interview
Completion of the preliminary model (1/4)

- 3 levels
  - 4 components
  - 9 subcomponents
  - *45 indicators created*

Result / Qualitative interview

Completion of assessment indicators (2/4)

Sub-components	Indicators
Commitment	1.Can actively inquire about students' learning difficulties and help to solve them 2.Can volunteer to teach EMI courses 3.Can participate voluntarily in EMI teacher training programs 4. Can organize or participate in the professional community on EMI quality improvement 5.Can actively encourage students to take EMI courses
Motivation	1. Can actively review student learning outcomes and reflect on how to improve teaching quality 2. Can recognize EMI experiences as an important professional development process 3.Can recognize EMI as a means to improve oral communication in English 4. Can recognize EMI as a means to enhance teacher global competitiveness 5.Can endorse promotion of EMI courses to enhance internationalization quality
English Proficiency	1.Can use clear English pronunciation, apt intonation and stress to express ideas in words and sentences 2.Can describe complex conceptual development and highlight critical points and connotations in clear and intelligible English 3.Can express concepts and make up message gaps in fluent and clear-paced English 4. Can express semantic twist and change of topics in clear English 5. Can accurately explain learning points through extensive use of vocabulary
Content Knowledge	1. Can demonstrate familiarity with English vocabulary in a specific content subject. 2. Can express terms in a specific content subject in clear English pronunciation 3. Can demonstrate understanding of the fundamental theories of EMI 4. Can demonstrate understanding of the fundamental theories of L2 acquisition 5. Can achieve content course learning objectives via EMI

Result / Qualitative interview

Completion of assessment indicators (3/4)

Sub-components	Indicators
Delivery Skills	1. Can repeat, paraphrase, elaborate, summarize, and demonstrate to make students understand learning points 2. Can adjust pace and progression of lectures considering student individual differences to make learning points best understood 3. Can switch to more intelligible and easily demonstrable explanation when students encounter difficulties 4. Can explain via the aids of tables, diagrams, models, and animation to make learning pointes easily understood 5. Can exploit class interactions to monitor learning progress, inspire thinking, and raise concentration
Course Management	1. Can establish effective teaching objectives to accommodate both content knowledge learning and English learning progress 2. Can select authentic course materials based on students' abilities, learning objectives, and assessment methods. 3. Can design class activities and remedial or self-directed learning activities considering differing learning progress of students 4. Can provide students with the essential content knowledge bilingual glossary at the start of an EMI course 5.Can create a syllabus containing content learning schedule, instruction procedures, and guiding English phrases for each teaching session
Outcome Assessment	1.Can use formative and summative assessment methods, and conduct semester-end student learning effect surveys 2.Can design multiple assessment instruments with sufficient validity and reasonable weighting in compliance with course objectives 3.Can design multiple assessment instruments according to distinctive properties of differing content learning disciplines, implement the assessment plan truthfully, and document the assessment procedures 4.Can assess both content knowledge and English learning progress and make the weighting of the assessment criteria known to students at the course beginning 5.Can establish a learning progress tracking mechanism to examine, identify, and solve learning problems on a regular basis

Result / Qualitative interview

Completion of assessment indicators (4/4)

Sub-components	Indicators
Content Learning Progress	1.Can make students satisfied with content knowledge learning results 2.Can increase student learning motivation in content knowledge learning 3.Can make students make significant progress in comprehending content knowledge English 4.Can help students make significant progress in learning content subject English vocabulary 5.Can help students decrease anxiety of learning content knowledge in English
English Learning Progress	1.Can make students satisfied with their English learning progress 2.Can help students enhance their English learning motivation 3.Can help students make significant progress in overall English comprehension 4.Can engender significant increase of class interactions in English 5.Can inspire in students significant increase of self-confidence in overall English use

Result / Delphi technique

Finalized assessment model (1/4)

- 4 components / 9 subcomponents
- Reduced from 45 to 39 items
  - *Deletion*
  - *Addition*
  - *Merging*
- Rephrasing of some items
- Switching of some items
- Relabeling of subcomponents
  - *English learning → ESP/Content subject English learning*

Result / Delphi technique

Finalized assessment model (2/4)

Sub-components	Indicators
Commitment	1. Can volunteer to teach EMI courses 2. Can encourage students to take EMI courses 3. Can inquire about students' learning difficulties and help to solve them *4. Can reflect on learning effects and teaching methods to improve teaching quality*
Motivation	1. Can acknowledge EMI experiences as an important professional development process 2. Can recognize EMI as a means to improve oral communication in English 3. Can recognize EMI as a means to enhance higher education global competitiveness 4. Can endorse school's goal of promoting EMI to enhance internationalization quality
English Proficiency	1.Can use clear English pronunciation, apt intonation and stress to express ideas in words and sentences 2.Can describe learning content in clear and intelligible English, and highlight critical points and connotations 3.Can express concepts in fluent and clear-paced English and make up message gaps 4. Can express semantic twist and change of topics in clear English 5. Can accurately explain learning points through simple and extensive use of vocabulary
Content Knowledge	1. Can demonstrate familiarity with English vocabulary in a specific content subject. 2. Can express terms in a specific content subject in clear English pronunciation 3. Can achieve content course learning objectives in clear English

Result / Delphi technique

Finalized assessment model (3/4)

Sub-components	Indicators
Delivery Skills	1. Can provide course learning materials for students to preview and review 2. Can make learning points understood by adjusting pace and progression of lectures based on student individual differences 3. Can switch to more intelligible and easily demonstrable explanation when students encounter learning difficulties 4. Can make learning points easily understood explain via the aids of tables, diagrams, models, and animation 5. Can best use class interactions to monitor learning progress, inspire thinking and motivation *6. Can encourage students to participate in class discussions*
Course Management	1. Course objectives can accommodate learning of both content knowledge and professional English 2. Can select authentic course materials based on students' abilities, learning objectives, and assessment methods. 3. Can design class and remedial activities taking student differing learning progress into account 4. Can create at the semester outset a syllabus containing weekly learning content and schedule
Outcome Assessment	*1. Can use multiple assessment to evaluate student learning achievement, and make the weighting of the assessment criteria known to students before hand* 2. Can develop learning assessment methods according to the course teaching plan, and keep track of assessment records 3. Can establish a learning progress tracking mechanism to examine, identify, and solve learning problems on a regular basis

Result / Delphi technique

Finalized assessment model (4/4)

Sub-components	Indicators
Content Learning	1.Can make students feel progress in content knowledge learning 2.Can increase student learning motivation in content knowledge learning 3. Can help students make significant progress in learning content subject English vocabulary 4. Can help students make significant progress in comprehending content subject English 5.Can help students decrease anxiety of learning content knowledge via English
Content Subject English Learning	1.Students can feel improved in content subject English 2.Can help enhance student English learning motivation 3.Can help students make significant progress in content subject English comprehension 4.Can make students significantly increase use of English in class 5.Can significantly increase student self-confidence in English use

Result / AHP (1/7)

Weight of Level-1 /Level-2 indicators

Level-1		Level-2	
Components	**Weight**	**Subcomponents**	**Weight**
Attitude	.3475	*Commitment*	.2244
		Motivation	.1231
Competence	.2266	*English Proficiency*	.119
		Content Knowledge	.1076
Goal Attainment	.2174	*Content Learning*	.1233
		Content Subject English Learning	.0941
Performance	.2082	*Delivery Skills*	.1018
		Course Management	.0562
		Outcome Assessment	.0502

Result / AHP (2/7)

Weight of Level-3 indicators

Level -3 Indicators	Weight
Attitude	**0.3475**
(1) Commitment	**0.2244**
Can reflect on learning effects and teaching methods to improve teaching quality	0.0753
Can inquire about students' learning difficulties and help to solve them	0.0685
Can volunteer to teach EMI courses	0.051
Can encourage students to take EMI courses	0.0296
(2) Motivation	**0.1231**
Can recognize EMI as a means to enhance higher education global competitiveness	0.0347
Can endorse school's goal of promoting EMI to enhance internationalization quality	0.033
Can acknowledge EMI experiences as an important professional development process	0.0288
Can recognize EMI as a means to improve oral communication in English	0.0266
Competence	**0.2266**
(1) English Proficiency	**0.119**
Can accurately explain learning points through simple and extensive use of vocabulary	0.0283
Can express concepts in fluent and clear-paced English and make up message gaps	0.0273
Can describe learning content in clear and intelligible English, and highlight critical points and connotations	0.0255
Can express semantic twist and change of topics in clear English	0.0238
Can use clear English pronunciation, apt intonation and stress to express ideas in words and sentences	0.0141
(2) Content Knowledge	**0.1076**
Can demonstrate familiarity with English vocabulary in a specific content subject.	0.046
Can achieve content course learning objectives in clear English	0.0335
Can express terms in a specific content subject in clear English pronunciation	0.0281

Result / AHP (3/7)

Weight of Level-3 indicators

Level-3 Indicators	Weight
Performance	**0.2082**
(1) Delivery Skills	**0.1018**
Can switch to more intelligible and easily demonstrable explanation when students encounter difficulties	0.0238
Can best use class interactions to monitor learning progress, inspire thinking, and motivation of students	0.0195
Can make learning points easily understood explain via the aids of tables, diagrams, models, and animation	0.0184
Can make learning points understood by adjusting pace and progression of lectures based on student individual differences	0.0173
Can encourage students to participate in class discussions	0.013
Can provide course learning materials for students to preview and review	0.0098
(2) Course Management	**0.0562**
Can design class and remedial learning activities taking student differing learning progress into account	0.0167
Teaching objectives can accommodate the learning of both content knowledge and professional English	0.0156
Can select authentic course materials based on students' abilities, learning objectives, and assessment methods	0.014
Can create at the semester outset a syllabus containing weekly learning content and schedule	0.0099
(3) Outcome Assessment	**0.0502**
Can use multiple assessment to evaluate student learning achievement	0.018
Can establish a learning progress tracking mechanism to examine, identify, and solve learning problems on a regular basis	0.0176
Can develop learning assessment methods according to the course teaching plan	0.0146

Result / AHP (4/7)

Weight of Level-3 indicators

Level-3 Indicators	Weight
Goal Attainment	**0.2174**
(1) Content Learning	**0.1233**
Can increase student learning motivation in content knowledge learning	0.0294
Can make students feel progress in content knowledge learning	0.027
Can help students make significant progress in comprehending content subject English	0.024
Can help students make significant progress in learning content subject English vocabulary	0.022
Can help students decrease anxiety of learning content knowledge via English	0.0209
(2) Content Subject English Learning	**0.0941**
Can overall help students make significant progress in content subject English comprehension	0.0224
Can make students significantly increase use of English in class	0.0203
Can overall significantly increase student self-confidence in English use	0.0199
Can help enhance student English learning motivation	0.0162
Students can feel improved in content subject English	0.0153

Result / AHP (5/7)

Top weights of Level-3 indicators

Level-1	Level-2	Level-3 Indicators	Rank	Weight
Attitude	Commitment	***Can reflect on learning effects and teaching methods to improve teaching quality***	1	0.0753
Attitude	Commitment	***Can inquire about students' learning difficulties and help to solve them***	2	0.0685
Attitude	Commitment	***Can volunteer to teach EMI courses***	3	0.0510
Competence	Content knowledge	***Can demonstrate familiarity with English vocabulary in a specific content subject***	4	0.0460
Attitude	Motivation	***Can recognize EMI as a means to enhance higher education global competitiveness***	5	0.0347
Competence	Content knowledge	***Can achieve content course learning objectives in clear English***	6	0.0335
Attitude	Motivation	***Can endorse school's goal of promoting EMI to enhance internationalization quality***	7	0.0330
Attitude	Commitment	***Can encourage students to take EMI courses***	8	0.0296
Goal Attainment	Content Learning	***Can increase student learning motivation in content knowledge learning***	9	0.0294
Attitude	Motivation	***Can acknowledge EMI experiences as an important professional development process***	10	0.0288

Result / AHP (6/7)

Level-1 comparison across stakeholders

	SH1 Teacher Evaluation Administrators		SH2 Assessment Experts		SH3 EMI Teachers	
Rank	**Component**	**Weight**	**Component**	**Weight**	**Component**	**Weight**
1	*Attitude*	.416	*Attitude*	.309	*Attitude*	.315
2	*Goal Attainment*	.276	*Goal Attainment*	.281	*Competence*	.275
3	*Performance*	.158	*Performance*	.210	*Performance*	.222
4	*Competence*	.149	*Competence*	.200	*Goal Attainment*	.188

Result / AHP (7/7)

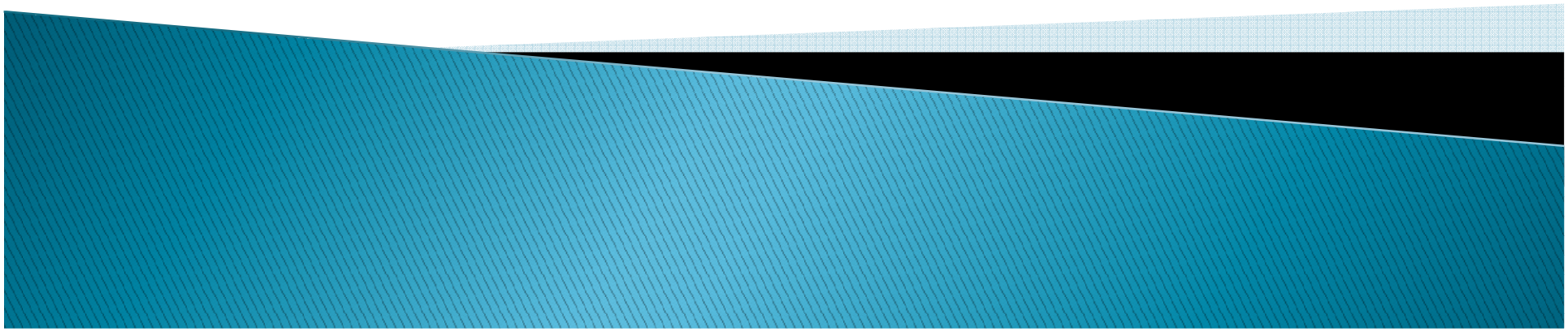
Level-1 comparison across stakeholders

- Attitude assigned most importance across 3 stakeholders
- SH#1 & SH#2 as evaluators place more weight on Goal Attainment than on Competence
- SH#1 & SH#2: Goal achieving more vital than ability qualification for SH#3
- SH#3 as evaluatees place more weight on Competence than on Goal Attainment
- SH#3 seek competence while downplaying GA to relieve burden of responsibility

Conclusion

- The created model facilitates effective/valid nationwide EMI program evaluation
- Attitude as most crucial component of EMI assessment, less importance placed on Performance
- Evaluator & evaluatee stakeholders reflect differing values on Competence & Goal Attainment
- EMI training program may incorporate the findings into the curriculum

Suggestions for further research

- Further validation of the created model
- Survey of EMI practices nation wide
- Survey of EMI teachers vs. students
- Trial of the created model in actual EMI teacher evaluation process
- Use of assessment indicators
  - *Construction of verification methods*
  - *Construction of rating rubrics*
  - *Evidential/justifiable sources*

Questions ?