

The Relationship Between Instructional Language and Content Learning: A Case Study in the Turkish University Context

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CLIL research workshop_Vaasa,
Finland 2010

Introduction



Turkish context,

- Late immersion: CLILL not observed until higher education
- Sudden shift in instructional language at university: effects into content learning unknown
- CLIL - investigated in depth through studies in other contexts (Wilkinson, 2004; Wilkinson and Zegers, 2007)
- Need for research in different contexts for comparison (Airey & Linder, 2007)

Research Background

Turkish university context and theories of learning:

- Cummins (2000): Interdependency theory and late immersion- risk for Turkish learner to lag behind native speaker in comprehension of content
- Dalton-Puffer (2007): Importance of pedagogical dialogue and participation for maximizing learning (cf. Bruner's Constructivist and Vygotsky's Social Constructivist Theories): Limited participation in Turkish context due to insufficient language skills. Observed in:
 - European Universities Association –Eastern Mediterranean University Evaluation Report (2007): problems observed due to level of English
 - Arkin (2008): Survey of EMU sts' perception of EMI and learning- difficulty in following content due to limited language skills

A decorative graphic at the top of the slide consists of six circles. The first two circles on the left are partially overlapping and contain the text 'The Study'. The first circle is solid light purple, and the second is a white circle with a light purple outline. To the right of these are three more circles: a solid light purple circle, a white circle with a light purple outline, and another solid light purple circle.

The Study

Hypothesis:

Based on theoretical grounding and observed evidence,
“English-medium instruction may have negative impact
on Turkish university students’ disciplinary learning.”



Research in other contexts

Common finding is English-medium instruction may have negative impact on non-native speaker learners' comprehension of subject matter:

- Neville-Barton & Barton (2005) – maths
- Gerber, et al. (2005) – maths
- Klaassen (2001) – engineering
- Airey & Linder (2007) – physics

Research in Turkey



No research looking into the effects of instructional language on disciplinary learning at university context

Limited research so far has been based on teacher / learner views only; common finding is while EMI may have positive effect on language skills, it may have negative impact on content learning:

- Kırkgöz, Y. (2005) – student perception of EMI
- Kılıçkaya, F. (2006) – instructors' attitudes towards EMI
- Sert, N. (2008) – perceptions of students at English and Turkish medium programs



Significance of the Study

Need for in-depth analysis of the issue

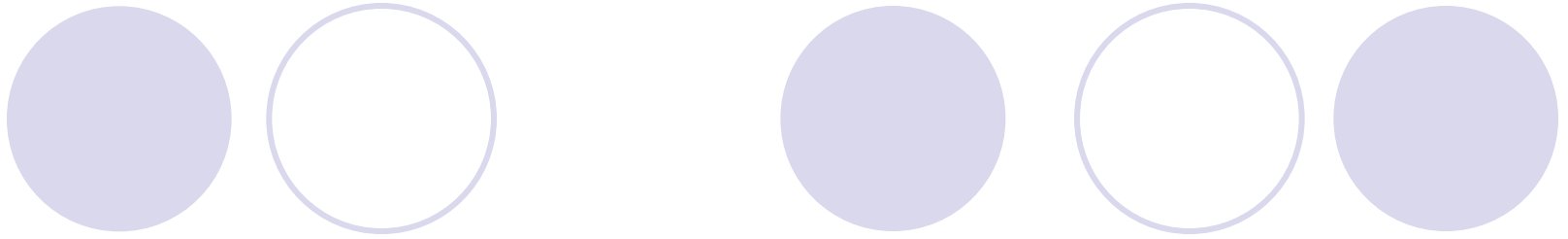
Flowerdew (1994), “... a lot more research is needed ... in terms of how a [SL] lecture is comprehended, in terms of what a lecture is made up of... which will have concrete effects on [SL] pedagogy”.



FOCUS of the Study:

How does L2 English instruction affect the process of disciplinary learning in undergraduate university education?

- L2 English instruction: Neither learners nor teachers typically have English as their L1
- university education: undergraduate higher education with a vocational orientation in the profession of Business Administration



Research Questions

1. What characterizes Turkish university students' participation in English-medium (EM) lectures?
2. What do students find problematic in EM lectures?
3. What adverse impact might instruction in English language have on students' learning of their disciplinary content?

Research Methodology



Based on Airey & Linder, 2006 (cf. Klaassen, 2001):

- Video-taped classroom observations (in both Turkish and English) (RQ 1)
- In-depth interviews using *stimulated recall* based on video excerpts (RQ 2 & 3)

Data Collection Procedure

- Ten 3rd and 4th year Turkish students attended lectures conducted both in English and Turkish by the same content instructor,
 - Two topics were selected from a 3rd-year undergrad course, *Human Resources Management (MGMT 301)*
 - 1st topic: Half of students attended lecture in English; lecture was repeated in Turkish for other half
 - 2nd topic: Those who attended first lecture in English attended this one in Turkish; lecture was repeated in English for other half
- All the students were interviewed individually using a semi-structured interview protocol
 - Eight students wanted the interview to be in Turkish. One started in English and later switched to Turkish. One had it in English.
 - Six video excerpts from each lecture were used for stimulated recall.



Data Collection and Issue of Validity and Reliability

- **Trustworthiness** sought through
 - deliberate and systematic data collection through semi-structured interview protocols (adapted from Airey, 2009)
 - ‘Thick description’- rich with contextual and situational details based on well-documented raw observation and interview data
 - Clarified researcher position through the hypothesis put forward

Research Question	Research Methodology	Findings
<p>1. What characterizes Turkish university students' participation in English-medium (EM) lectures?</p>	<p>Classroom observations of 4 lectures. 2 topics covered: One in English, one in Turkish. 10 participants divided into two groups: Each group attended one lecture in English, one in Turkish.</p> <p>This research design allowed the researcher to compare performances</p>	<p>Limited participation and interaction: Lectures largely proceed as monologue with limited asking/answering/ commenting...</p> <p>English lectures: Lecturer: ... %; Students: ... %</p> <p>Turkish lectures: Lecturer: ... %; Students: ... %</p>

Sample Interview Extracts [translated from Turkish]

Limited participation and interaction in EM lectures

“I wouldn’t want to say something wrong or make a mistake; no I’m a talkative person, but language is a factor of course... When the teacher asks a question, you say a word or two in response, but when he asks why, you just can’t respond... So I usually don’t respond to teacher’s questions, but if it’s a short answer question, I would say a few words... Turkish speaking students, their participation is not... a few students usually, the same ones. But those who participate well are the foreign students usually, ... their English is better and they participate and ask questions...”

“A little hard ... because of lack of practice. Well it’s, erm you feel like, ‘how can I ask this question in appropriate English?’ ... Foreign students, for example, they can easily raise a hand and ask their question directly, appropriately. But for us, there is... we [Turkish students] think how should I ask this question properly, then the time passes, the lecturer moves on and you say ah okay leave it...”

“They can’t... well, generally Turkish students don’t ask questions much. This is because... they feel if foreign students in class laugh at them when they make a mistake in speaking... I feel that sometimes too.”

Research Question	Research Methodology	Findings
<p>2. What do students find problematic in EM lectures?</p>	<p>Semi-structured interviews conducted with each student with questions about</p> <ul style="list-style-type: none"> - their English background - their experiences in learning in English up to now 	<ul style="list-style-type: none"> • Language effect is not perceived as serious as it is revealed (in interviews and stimulated recall). Perceived difficulty: <ul style="list-style-type: none"> - Understanding lecture: - Understanding the book: • Low performance and achievement- post English prep trauma • Lecture participation and comprehension: reduced attention span and extended gaps (due to limited language skills) • Increased study load: memorization / surface learning

Sample Interview Extracts [translated from Turkish]

Language effect
is not perceived
as serious

F: ... in fact I don't complain, yes we're having some difficulty but I'm not unhappy about it...

I: Do you ever wonder if language is a factor affecting content learning in this course?

F: I don't think it is affecting much... It may be affecting but English is the world language, and I'm happy with learning in English, but we lack practice with the language, it's a bit low... needs to be improved, I don't know...

[Later reveals in the interview]

F: "I repeated a course (Management 102) four times. My teachers told me it was my English that prevented me from passing this course; they said a native English speaker would pass this course just by taking the exams and without attending any of the lectures as it is an easy course in terms of content. But I failed that course three times because my English was not enough to follow the lectures..."

Sample Interview Extracts [translated from Turkish]

Low performance
and achievement-
post English prep
trauma

“English I learned at prep did not help me at all at dept... First two years were very hard, failed most courses due to English; thought about quitting school many times. I am still repeating the failed courses and trying to adapt...”

“First term in my first year I failed 3 courses which require English, and passed the other three, one was Turkish the other two were mathematics... I had to repeat MGMT 101 (Intro to management) course 5 times. At last I managed to pass the course, not because I learned something, but because I memorized the key terms and content.”

“First year was not easy for me. I did not fail any courses but my GPA was very low.”

“I passed the proficiency and skipped the prep school. But I had problems at the dept at the first year, especially with technical and academic English... I survived first year English courses by memorizing key terms and concepts. Thinking back, if I passed these courses with better understanding and learning, rather than memorizing, I would feel more comfortable in the upper years as most course content- topics and concepts- are repeated in the upper year courses...”

Sample Interview Extracts [translated from Turkish]

Lecture participation and comprehension: reduced attention span and extended gaps (due to limited language skills)

“The course content is not that hard, if it was in Turkish it wouldn’t be so difficult... if it was in Turkish we would catch up and tune in easily when you missed a point... when it is in English, it is very difficult to catch up with the lesson when you are once lost and it gets harder to comprehend...”

“When there is a word you don’t understand and when that word is a key word for understanding and if you don’t know the meaning, you get lost in the rest of the lecture... As there are so many words that I don’t understand in a lecture, I cannot and I don’t want to ask for all these words, don’t want to disturb the class, my friends with my questions...”

Sample Interview Extracts [translated from Turkish]

Increased study
load:
memorization /
surface learning

“I have another BA book, Turkish. I revise the topics we learned in class with that book in Turkish; I use both books... it doubles my work: looking up words, translating into Turkish, then into English... Many of my friends have survived mostly memorizing; when you ask them explain this [a topic], they cannot express neither in English or Turkish...”

“I could easily figure out a difficult concept by checking the book or the Internet or asking a friend, but when it is in English you have to look up many words and it gets difficult to comprehend... I don't use the book, I use the lecture slides only while revising for the exams... I refer to the Internet resources when I don't understand...”

I don't use the course book, did not buy one; it is too difficult to understand. I use the slides only, but of course they are not sufficient... only one or two of my friends have the book, others don't use it...”

Research Question	Research Methodology	Findings
<p>3. What adverse impact might instruction in English language have on students' learning of their disciplinary content?</p>	<p>In-depth interviews using <i>stimulated recall</i> based on video excerpts; some of the key concepts focused are:</p> <ul style="list-style-type: none"> -Maslow's hierarchy of needs -Herzberg's two-factor model 	<p>Miscomprehension or limited understanding of some topics, concepts (<i>e.g. Maslow's self-actualization; Herzberg's hygiene factors</i>)</p>

Sample Interview Extracts [translated from Turkish]

Miscomprehension or limited understanding of some topics, concepts: *Maslow's self-actualization**

**All disciplinary courses are in English; they had this lecture in Turkish only, as part of the research design. These students reflect on the Turkish lecture, revealing their miscomprehension of the concepts in previous courses...*

“... There was one thing I could not understand before: Kendini Gerçekleştirme (self-actualization); I understand that concept clearly now in this [Turkish] lecture. The other steps in the hierarchy I got them correct in English in the earlier course, but this concept [self-actualization]... One thing that the instructor said about its meaning [in Turkish], ‘You get to know the real meaning of life, and start seeking the absolute truth and values within ...’ In the other [previous] courses , from neither what I listened in the lecture nor what I read from the book, I did not understand the meaning fully...”

“Yes, but it does not match with what we learned here about its meaning now... I thought it was like, when you satisfied all your needs and achieved a position you earn the respect of people; you become a respected person after achieving a certain status and position... However, it actually means realizing your self-being, your existence. I learned it now...”

Sample Interview Extracts [translated from Turkish]

Miscomprehension or limited understanding of some topics, concepts:
*Herzberg's hygiene factors**

**All disciplinary courses are in English; they had this lecture in Turkish only, as part of the research design. These students reflect on the Turkish lecture, revealing their miscomprehension of the concepts in previous courses...*

A: "... Here the lecturer clearly explained where the term hygiene comes from, why these factors are called hygiene. I've seen the same concept before in the previous three courses I took earlier but I could not understand why it is called hygiene factors... Look [pointing to the screen], he [lecturer] is going to explain the term hygiene [explanation is watched]... here I felt I fully understood the concept and its relation to motivation... I think this is a very important concept for my profession in the future; I would have been very upset if I hadn't learned its real meaning [in this Turkish lecture]. I feel very sad to have learned this concept this late; this would be useful for me in the other courses, as well. But I'm happy to have learned it before starting a job, before having to need it in practice...

I: But didn't you ask yourself if you learned it fully in the prior courses?

A: Not much, because the aim, for us, for most students, is to pass the course and we don't look back and reflect on what we learned. I, for example, saw this concept in the three courses I took before but I did not wonder what hygiene would really mean [in regards to motivation], or maybe I thought I understood what it meant, until now...

Sample Interview Extracts [translated from Turkish]

Miscomprehension
or limited
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concepts:
*Herzberg's hygiene
factors**

**All disciplinary courses
are in English; they had
this lecture in Turkish
only, as part of the
research design. These
students reflect on the
Turkish lecture, revealing
their miscomprehension
of the concepts in
previous courses...*

E: "... We've covered this, too, before. We've seen this many times as well...

I: So have you noticed anything new about the difference between the two factors [motivators and hygiene]?

E: I had sort of understood what motivators were but I'd had doubts about this hygiene, not fully understood; I sort of memorized and passed that concept... here now I understand what it is...

I: What did you think it was in the previous lectures?

E: You need a clean work environment; you need to provide a healthy, safe and clean environment for your workers to motivate them better. I kind of associated it with hygiene, and memorized it that way. This was how I defined and explained the term in the exams, or I could not explain enough I don't know, I don't remember exactly... I only understand the term now, in my final year!

Discussion of Findings

- Airey and Linder (2007), “problems ... may be even more pronounced in countries with generally lower levels of English language competence.”
- Findings confirm above concerns and hypothesis
 - Major lecture comprehension skills (Flowerdew, 1994) seem to be lacking:
 - i. Identifying major themes or ideas
 - ii. Identifying relationships among ideas
 - iii. Comprehending key vocabulary
 - iv. Inferring relationships between information

Conclusion



What needs to be done

- Awareness raising about language differences: learners, teachers, administrators
- Better coping strategies for learners
- Rethinking and revising pedagogical strategies
- Curricular revision: restructuring intensive English content and first one/two year content

Sample Video: Herzberg's ...

- Video – Herzberg in English [12:40]
- Video – Herzberg in Turkish [14:50]

For references:

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