Teaching and Learning in English in Higher Education: A Literature Review

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TEACHING AND LEARNING IN ENGLISH IN HIGHER EDUCATION: A LITERATURE REVIEW

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Abstract

Higher education instruction in English in non-English speaking countries has become a reality in several countries and contexts. The policy towards the adoption of English as language of medium of instruction (EMI) has led to a situation in which students are faced with the need of coping with learning new content in a language different from their mother tongue and teaching staff needs to deliver their courses in English, which is not their first language in many cases. The present review article focuses on the studies concerning EMI in higher education, reporting on didactical strategies employed by the teaching staff and students to cope with the learning context. Studies were acquired via ‘Web of Knowledge’ building on the following inclusion criteria: they dealt with EMI in higher education, did not have language teaching as main focus and reported didactical strategies utilized by the teaching staffs and/or the students. From 417 articles, only 10 articles met all inclusion criteria. Seventeen addition articles could be identified by consulting the references from the first studies, resulting in 27 studies being reviewed. The literature reviews results in a collection of 38 different didactical strategies employed by teaching staffs and 23 by students. These strategies could be split up into inside or outside the classroom strategies and could also be clustered as follows. Strategies used by staff inside the classroom are categorized as: Language, interaction, checking understanding, and lecture delivery. Strategies used outside the classroom were divided into the clusters: Language, checking understanding, interaction and preparation. Student strategies inside the classroom could be clustered as follows: Language, lecture attendance behavior, checking understanding and interaction. Lastly, strategies outside the classroom were divided into the following clusters: Studying strategies, checking understanding and language.

Keywords: Higher Education, English, English as medium of instruction.

1 INTRODUCTION

Higher education instruction in English in non-English speaking countries is a reality in different contexts. Higher education institutions promote the adoption of English as a language of instruction to achieve varying objectives, such as internationalization of students and staff, improvement of the English level of the students, etc. This policy towards the adoption of English as language of medium of instruction (EMI) has led to a situation in which students cope with learning content in a language different from their mother tongue and teaching staff having to deliver their courses and/or lectures in English, which is not their first language in many cases. Coping with this change and the resulting difficulties is found in the literature, as Kalmar & Linder state: “Although the shift to teaching in English has often been welcomed by teachers and students, the research community is only beginning to understand the dynamics of these changes within the learning environment. One of the reasons for this is that there is very little research available into the effects on disciplinary learning in higher education when the language used to teach a course is changed in this way” (Airey & Linder, 2008, p.146). Not understanding the dynamics of related changes may even lead to quality losses in teaching and learning processes: “…whether teaching in a language of which neither the teacher nor the student is generally a native speaker may lead to poorer learning.” (Jensen & Jacob Thøgersen, 2011, p. 21). Focusing on the role of teaching staff, studies point at the following challenges when teaching in English: “Perhaps the most serious problem the lecturers face is the fact that teaching in a foreign language (mainly in English) is more demanding and requires more effort on their part. The MP1 acknowledges the additional demands that teaching in a foreign language places on teachers by authorising participants a reduction in their teaching loads during the first two years” (Doiz, Lasagabaster and Sierra, 2011, p. 352). Teaching staffs acknowledge the need to adjust their didactical strategies in such context, as observed by Wilkinson: “The respondents in the qualitative
study reported that it was beneficial to adapt instructional techniques in English-medium teaching" (Wilkinson, 2005, p. 4). The concept of didactical strategies (also teaching method, didactic method, instructional strategy…) is used in this review in a generic way. Valcke (2010) defines the concept as a systematic way to activate learners, in view of attaining specific objectives, building on learning materials and media and giving way to evaluation. Didactical strategies tend to define the role of both teacher and student, and are as such often linked to a theoretical position about learning (behaviorist, cognitivist, constructivist). Didactical strategies can be approached in a broad way, thus discussing systemic implementations such as problem based learning, case based learning, … or in a narrow way, thus focusing on micro-level methods such as mind mapping, developing summaries, presenting advance organizers, etc. Besides their didactical strategies, teaching staff is also presented with the challenge of being linguistically efficient themselves when presenting new content in a second language. This impacts not only students’ understanding of the content, but also their perception towards the lecturers’ general lecturing competence: “Students’ attitudes towards their lecturers’ general lecturing competence are affected by their perceptions of the lecturers’ proficiency in English” (Jensen, Denver, Mees & Werther, 2013, p. 103). Students are also presented with challenges in this context: “Students seem more confident in using the English language in English medium universities but sometimes complain about memorization and not being able to participate in oral discussions in classes in English” (Karabinar, 2008, p. 54). Although we see how English as a medium of instruction might positively affect students’ English language mastery level, other studies show how this hinders content learning: “The preceding findings seem to point towards the tentative conclusion that the language of instruction affects student learning from a lecture. More in particular the use of English as the medium of instruction seems to reduce Dutch students’ learning from a lecture” (Vinke, 1995, p. 127). Furthermore: “In other words, the students felt that EMI was hindering their acquisition of knowledge to some extent” (Byun et al., 2010, p. 438). In order to identify and develop didactical strategies to overcome the challenges when teaching/learning in English, “a review of the research done on non-native speakers of English working as lecturers through the medium of English is needed” (Alexander, 2008, p. 91). Moreover, research on how the students can be helped to cope with this context, is also needed.

In view of the present review study, we emphasize that the review does not focus on English language learning; there is plenty of research linking language learning to content learning (Content and Language Integrated Learning, CLIL; see Dalton-Puffer, 2008; Marsh, 2002). Our review collects and analyzes literature about how lecturers and students cope with the actual teaching/learning of the knowledge base during the teaching/learning process. The study is organized as follows. After having introduced the research context, and the related research questions, we describe our review methodology by focusing on inclusion and exclusion criteria and the resulting analysis of the selected articles. The presentation of the results aims at looking at clusters of didactical strategies adopted by teachers and students.

2 RESEARCH QUESTIONS

As presented in the method section, studies addressing the issue of English language higher education instruction in non-English speaking countries are easily located. Nevertheless, a minority of those studies deals with the didactical implications of such change. Therefore, the present review of research aims exclusively at tracking research taking into consideration the didactical strategies employed by teaching staff and students. These strategies, as stated by Wilkinson (2005), “show that adaptations to programmes due to language are constantly necessary and that more time is required both for staff and students, compared to teaching in the mother tongue” (p. 01) and by Klaassen (2008, p. 33) when stating that studies have “…demonstrated the necessity of the development of (didactical) skills of lecturers who provide English-medium instruction.” Taking into consideration this need for adaptation, our first research question focuses on the teaching staff: What are the didactical strategies used by the teaching staff when teaching content in English to non-native English speakers?

Courses, programs and/or lectures in English do not put an extra burden on teaching staff only, but on students too: “students also find it more difficult and time-consuming to study in English, but in general they do not regard this as an argument against EMI” (van Splunder, 2010, p. 280). Therefore, the second research question considers the student perspective: What are the didactical strategies used by non-native English speakers students when taught in English?
3 METHOD

3.1 Locating the studies: inclusion and exclusion criteria

A selection of articles started in August 2013, by the use of the academic search service ‘Web of Knowledge’, in which the terms “English”, “Medium”, and “Instruction” (EMI) were employed as inclusion criteria. The time frame 1990-2013 was adopted. This resulted in a data set of 417 articles. Next, these articles were analyzed on the base of the following exclusion criteria:

- Dealing with EMI in higher education;
- Not having language teaching/learning as a research focus.

From the 417 articles, only 17 met the criteria. Further exclusion criteria focused on selecting only those articles, focusing on didactical strategies used by either instructors and/or students. This additional selection phase resulted in a set of 10 articles meeting the above criteria. These articles were the starting point of a new literature selection phase, building on the reference list of these articles. This resulted in 17 additional relevant articles, meeting the exclusion criteria. These additional articles were tracked and collected via the Ghent University’s library (4), Google Scholar (6), the Web of Knowledge (6) and direct communication with authors. The final data set included only 27 articles to start our review of the literature. It is important to repeat that identifying and locating articles meeting the very specific criteria was not a straightforward task. Though one easily finds studies dealing with the use of English in Higher Education, most describe how that process has been taking place in their specific contexts without addressing the didactical strategies used by the teaching staff and the students in order to cope with these new circumstances.

4 RESULTS

In this section selected articles will be analyzed. Article features are categorized as follows: country of origin, year of publication, academic level, program or course, data collection instruments and didactical strategies used by the teaching staffs and the students. The first category to be presented is Country of origin.

![Figure 1 – Country of origin.](image)

Concerning the origin of the studies, we are presented with 15 different countries (shown in fig.1). The fact most are (8) are European, might reflect the impact of Europe’s policy on fostering language
development, which aims at providing the opportunity for citizens from the European Union (EU) to speak two additional languages (from the EU) besides their mother language.\(^2\) Four studies are Asian. We can observe that 3 (out of 4) are from Hong Kong, in which, although the majority of the population speaks Cantonese, English is recognized as an official language (Flowerdew, Li, & Miller, 1998). This reflects the situation in the context of the African studies, one from South Africa and one from Rwanda, both being multi-lingual countries and both having English as one of their official languages. The single Israel based study is set up in an English teacher education program. The analysis results suggest a stronger concern in EU countries about the particular implications of multilingualism and about adopting English as the most popular L2 choice in European higher education.

Regarding the year of publication, we repeat we set our time frame between 1900 – 2013 in order to track recent research.

![Figure 2: Year of Publication.](image)

The articles in the data set are published rather recently (16 being published from 2010 and on) with only 3 studies published during the 90’s. The increase in interest during recent years mirrors the popularization of EMI in non-English speaking countries; next to the fact that until recently very little research was set up about this topic (Airey & Linder 2008).

In relation to the academic level addressed by the studies, 14 (52%) concern Undergraduate, 9 (33%) General in Higher Education (HE) (undergraduate and graduate programs) and 4 (15%) Masters.

![Figure 3: Academic Level.](image)

The implications of EMI can be studied at a general level or within the context of specific courses or programs. The analysis shows 12 studies are general in HE, whereas 15 studies position the research within a particular course setting. This is summarized in fig. 4.

<table>
<thead>
<tr>
<th>Program/Course</th>
<th>Number of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>General in Higher Education</td>
<td>12</td>
</tr>
<tr>
<td>Physics</td>
<td>3</td>
</tr>
<tr>
<td>Engineering</td>
<td>4</td>
</tr>
<tr>
<td>All master programs</td>
<td>1</td>
</tr>
<tr>
<td>Business and engineering</td>
<td>1</td>
</tr>
<tr>
<td>Faculty of Economics and Management</td>
<td>1</td>
</tr>
<tr>
<td>Economics</td>
<td>1</td>
</tr>
<tr>
<td>General Workshops</td>
<td>1</td>
</tr>
<tr>
<td>Master of Science in Industrial Ecology programme</td>
<td>1</td>
</tr>
<tr>
<td>Faculties of Economics and Administrative Sciences</td>
<td>1</td>
</tr>
<tr>
<td>English teacher program</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>27</strong></td>
</tr>
</tbody>
</table>

Figure 4: Program or Course.

Regarding the research methodology adopted in the studies, there is a predominance of studies based on interviews (15) and questionnaires (14). To a lesser extent, the studies are based on observations (8) and focus groups (8), also referred to as forums or debates. Other data collection instruments present in the selected studies are the analysis of university policies, legislation, course materials and student work, next to workshops and visits to faculty meetings.

Considering the research methodology, the dominant adoption of interviews has the strength to “…enable(s) participants – be they interviewers or the interviewees – to discuss their interpretations of the world in which they live, and to express how they regard situations from their own point of view (Cohen, Manion & Morrison, 2000).” From this interactional factor, the discussion, the researcher may encounter data that might have been omitted in non-interactional data collection instruments, such as a questionnaire. On the other hand, as the researcher participates in the data collection process, interviews may be biased on the part of the interviewer (Cohen, Manion & Morrison, 2000). The second most employed data collection instrument is based on questionnaires. “The questionnaire is a widely used an useful instrument for collecting survey information, providing structured, often numerical data, being able to be administered without the presence of the researcher, and often being comparatively straightforward to analyze (Wilson & McLean, 1994 in Cohen, Manion & Morrison, 2000).”
2000)." The latter makes questionnaires popular, but researchers should mind that by making use of them they develop a "...limited scope of the data that are collected (Cohen, Manion & Morrison, 2000)."

A third type of data collection instrument, often used in the studies analyzed (N 8) is observations, which "...afford the researcher the opportunity to gather 'live' data from 'live' situations." Enabling researchers to "understand the context of programmes, to be open-ended and inductive, to see things that might otherwise be unconsciously missed, to discover things that participants might not freely talk about in interview situations, to move beyond perception-based data, and to access personal knowledge (Cohen, Manion & Morrison, 2000)." A weakness from this instrument is the time consuming nature of the analysis of observation data, enforcing researcher to limit the number of observations. A fourth type of data collection, present in a considerable number of studies (N 8) is focus groups. Though labeled differently in the studies, focus groups rely "... on the interaction within the group who discusses a topic supplied by the researcher (Morgan, 1988 in Cohen, Manion & Morrison, 2000)." A positive characteristic of focus groups is that a large amount of data can be generated, but comparable to interviews, the analysis requires a lot of resources. As mirrored above, different data collection approaches reflect different strengths and weaknesses. It has to be stressed that in most studies (N 16), more than one data collection instrument is being used, thus allowing to build on the potential of a variety of research strategies.

4.1 Didactical strategies used by the teaching staffs and the students

For organizational purposes this section was divided into two sub-sections, didactical strategies used by teaching staffs and didactical strategies used by the students. But often, articles discuss strategies adopted by both groups.

4.1.1 Didactical strategies used by the teaching staffs

In total, 38 different didactical strategies could be identified to be used by teaching staffs. To facilitate their presentation, we organize them following two categories: Strategies used by teaching staff inside the classroom and strategies adopted by teaching staffs outside the classroom.

Strategies used inside the classroom are implemented during lectures, the moment they interact in English to, mostly, non-native speakers. We can cluster these strategies as follows: Language, interaction, checking understanding, and lecture delivery. The largest cluster is language, containing 8 strategies:

1. Paraphrasing
2. Explaining words/key-concepts
3. Less density of new information
4. Code-switching
5. Allowing L1 among the students
6. Adjust writing tasks
7. Activate students' prior knowledge as a context when introducing new key terms
8. Simplified language to adjust to the students' (language) level

Vocabulary seems a major concern, as reflected in the following strategies: paraphrasing, explaining words/key-concepts, activating the students' prior knowledge before introducing key terms and, in a more general way, simplifying the language used in the lectures. The third strategy is connected to how students are less able to intake information in an L2 lecture context. Strategies 4 and 5 are related to the use of the L1 in the classroom, which may not be applicable when students and lecturers do not share the L1. One has to realize that code switching might add extra effort to develop understanding. Lastly, strategy number 6, adjust writing tasks to short papers and short answer questions, is linked to assessment and evaluation and helps to diminish written production. The latter might have negative consequences in being able to fully test the mastery of complex learning outcomes.

The next cluster of strategies used inside the classroom is related to interaction, or the decrease of it, which is cited as a major issue in the studies being analyzed. The strategies are:

1. More discussions among the students
2. More interaction with the students
3. More interactive activities
4. Lecturers being more pro-active as a discussion leader
5. More group/pair activities

Teaching staffs try to deal with interaction in two main ways, either by encouraging it (strategies 1, 3 and 5) or attempting to promote it (strategies 2 and 4).

A further cluster in strategies used inside the classroom is checking understanding. The need for such cluster might be linked to the lack of interaction, as cited above, which leads to difficulties to grasp whether students are able to follow the lecture:

1. More repetition
2. Highlighting key concepts
3. Provide or ask students for summaries and/or mind maps
4. More checking

The last cluster of didactical strategies used by the teaching staffs inside the classroom pertains directly to lecture delivery:

1. Follow a book closely
2. Writing more on the whiteboard
3. Lectures with 10-15 minutes maximum (segments)

The first two strategies deal with signalizing where exactly the lecturer is within the frame of a lecture while the last one considers students’ attention span when being exposed to new content in a L2 context.

In the studies, we could identify 18 strategies used by teaching staff outside the classroom. We can distinguish four clusters: Language, checking understanding, interaction (these 3 coincide with the clusters used inside the classroom) and preparation. The largest cluster (N 8) is language. The strategies comprise:

1. More preparation time for language matters
2. Language course
3. Glossary of basic terminology
4. Suggest reading material in several languages
5. Organize content in formulated phrases to adjust to students’ level of English
6. Provide assistance with major writing tasks
7. Adjusted evaluation
8. Tutorials in L1 (less formal)

Strategies 1 and 2 center on the teaching staff’s own language level. While taking more time for lecture preparation, lecturers check vocabulary (synonyms and different ways of explaining a given concept) and pronunciation. The second strategy aims at improving a lecturer’s language level as a whole. Strategies 3, 4 and 5 deal with facilitating language comprehension for the students in varying ways. Strategy 3 suggests adding a glossary to the course material; in presentation slides, in handouts and/or made available online. Strategy number 4 suggests adding reading material in several languages; this can be challenging when there are students with a different L1 background. Strategy 5 reminds teaching staff taking into consideration a students’ English level while preparing the materials and lectures. Strategies 6 and 7 refer to the assessment. When tasks are too language demanding, these impose a greater linguistic difficulty level and assessing rather language mastery instead of the mastery of the learning objectives. The last strategy (8) suggests adding tutorials in the L1 language. Again, this is not feasible in contexts with a large variety of L1s.

The next cluster is labeled preparation, and consisting of 6 didactical strategies:

More preparation time for developing material

1. New material
2. Methodological Training
3. Focus more on key ideas
4. Adapt course and class plans in terms of time

5. Share material before class

The first strategy requires lecturers to plan their L2 lectures in greater depth. This strategy is related to strategy 2, stating teaching staff should develop new materials in the L2 language instead of simply translating material developed in L1. The third strategy is the availability of methodological training for the teaching staffs. Strategy number 4 suggests that lecturers should emphasize the key ideas during presentations to a larger extent. Strategy 5 basically acknowledges how lecturers slow down delivery rate in L2 by 25%. For example, a 45-minute lecture in L1 requires a full hour in an L2 context. Therefore, it is recommendable teaching staffs re-plan their courses and lesson plans according to this slower delivery rate. Lastly, strategy number 6 recommends sharing course material prior to the classes to allow students to get prepared in advance.

4.1.2 Didactical strategies used by the students

Similarly to the previous sub-section, the didactical strategies are also divided into two main clusters, inside and outside the classroom. In total, 23 different strategies could be identified in the literature review.

Firstly, didactical strategies used by the students inside the classroom are presented. In total, 8 strategies were identified that are divided into four different clusters: language (N 4), lecture attendance behavior (N 2), checking understanding (N 1) and interaction (N 1). Many of strategies coincide with strategies adopted by teaching staffs. This underpins the importance of these approaches in an L2 setting. The first cluster of strategies is labeled language:

1. Use of different languages at their disposal to negotiate meaning and construct knowledge.
2. Switch to L1 when in small groups
3. Students had more cases of 'comment on intent', 'comment on common ground' and 'repetition for emphasis'.
4. Students strongly preferred to have classes only in English.

Strategies 1 and 2 are related, they both resort to the use of students’ L1 whenever possible. These strategies are only adequate when students share the L1. The third strategy refers to linguistic choices made by students while working in groups. They made more comments on their intents, shared more common ground and engaged more in repetition when they are able to refer to their L1. Lastly, in strategy number 4, students reported disliking using their L1. The rationale is that allowing code switching would add an extra difficulty to the process.

The following strategy cluster - lecture attendance behavior - is composed of two strategies:

1. Lecture attendance (they get used and profit more from classes in the L2)
2. Not taking notes during class to focus on listening comprehension.

Strategy 1 may seem obvious. Lecture attendance is expected to have a positive impact on students’ learning outcomes. Students report that L2 lecture attendance helps them to get used to this type of lectures and, consequently, to learn from them. The second strategy is less obvious since note taking is mostly promoted in the literature to foster comprehension and student attention span. Nevertheless, in an L2 setting, note taking is too time consuming due to the fact it mostly requires code switching and slows down the actual processing speed. The next strategy category centers on student interaction in the classroom, as already mentioned as a matter of concern for the teaching staff:

1. More time to speak out and intervene in lectures or discussions.

It stresses the need to give more time to students to speak out and intervene during lectures and discussions. To be able to have livelier discussions, students reported needing more time to speak out during lectures and to participate in discussions. The last strategy refers to checking understanding, which was already mentioned as an approach adopted by the teaching staffs:

1. Students report needing additional explanations.

Having presented the didactical strategies used by the students inside the classroom we now move to strategies used by students outside the classroom. In total, 15 different didactical strategies were identified and grouped into three clusters: Studying strategies (N 7), checking understanding (N 4) and language (N 4). The first cluster, studying strategies, comprises a varying range of ways to foster L2 processing:
1. Reading sections of the material before lectures
2. Prior access to the material.
3. Extensive reading (repeatedly)
4. Completing assigned work
5. Practicing to become more confident
6. Pre and post lecture routines
7. Rote learning

The first two strategies are related and build on materials made available prior to lectures. Strategy number 1 and 2 require students to read sections of the materials made available beforehand to become better prepared. The third strategy implies extensive reading of materials after the lecture to enhance their learning. Strategy number 4, completing assigned work, seems obvious since it also applies to the L1 setting, but it becomes more relevant in an L2 context since it requires revisiting the content, activating new cognitive schema, rehearsing the content, etc. The fifth strategy is practicing to become more confident. Students reported increased confidence after practicing L2 content, by: making notes, giving informal presentations and/or participating in interactive seminars with other students. Strategy 6, “pre and post lecture routines”, refers to extra activities adopted in the L2 context, for example, preparing for lectures in advance, recording the lectures (audio) and, afterwards, (re)listening to the recordings on the base of the textbook and/or the notes. The last strategy, “rote learning”, should be avoided. Participants reported adopting rote learning since they could not follow the lecture content or did not fully understand the English. In such cases memorizing was seen as the only way to "acquire" the information.

The next cluster of strategies - checking understanding – was already identified when looking at strategies adopted by teaching staff:

1. More use of professors’ office hours to solve doubts.
2. Emails to deal with clarification or terminology.
3. Ask questions ‘off stage’, preferably in the L1, during the break or after the lecture.
4. Peer support systems.

The first two strategies focus on content or terminology and build on lecturer contact outside teaching time. Strategy 3 also builds on lecturer contact, but now during breaks or during/after the lecture. The question remains whether this contact should be in L1 or L2. It might depend on each other’s language mastery. The last strategy involves peer and builds on well-known Peer Assisted Learning Strategies (PALs). In the literature it is stressed that these approaches require a systematic build-up and a training of key actors involved in the process (e.g., tutors).

Language related strategies have been cited in the literature to be relevant for both teaching staff and students. The following language strategies are in particular used by students outside the classroom:

1. Miss/Suggest a glossary with technical/crucial terms
2. Accompanying English language courses within the curriculum
3. Study the terms in advance
4. Vocabulary-learning strategies, such as recording new words in a notebook and analyzing affixes and roots.

The first strategy is a request for adding materials to clarify the main vocabulary presented in the course materials. For example, a glossary helps students not to miss out on the most relevant terms. Glossaries could be composed of L1 and/or L2 translations and definitions in the L2, depending on what is most adequate in a context; e.g., where L1 is to be avoided. The second strategy is very demanding. It insists on adding English language courses to the curriculum. This seems to be particularly needed when students’ proficiency level is too low. Strategy 3 relates to the first one and requires students getting prepared in terms of lexicon prior to the lecture. This avoids lack of understanding due to vocabulary deficiencies. The last strategy focuses on learning new and crucial vocabulary. In the literature, students report adopting strategies such as writing down new words for memorization and analyzing affixes and roots.
5 DISCUSSION

This review reports on the studies investigating EMI in a Higher Education context and summarizes and structures the didactical strategies used by teaching staffs and the students in order to cope with L2 related learning challenges. Overall, the findings suggest that both teaching staffs and students employ didactical strategies inside and outside the classroom. Teaching staff strategies – inside the classroom - reflect concerns about: language, interaction, checking understanding and lecture delivery. Outside the classroom, categories comprise: language, preparation, checking understanding and interaction. Students adopt - inside the classroom – rather comparable clusters of strategies: language, lecture attendance behavior, checking understanding and interaction. Outside the classroom, students center on the clusters: studying strategies, checking understanding and language. The overlap in strategies adopted by students and teaching staffs indicates the main concerns of the key actors in the EMI context.

6 LIMITATIONS

Due to the inclusion/exclusion criteria, the number of studies was fairly small. Furthermore, there was not information about actual efficacy/impact of the strategies, with no quantitative analysis of effect sizes due to lack of information in the articles.

7 CONCLUSION AND FUTURE RESEARCH SUGGESTIONS

The present study presents an overview of didactical strategies adopted by students and lecturers when studying in an L2 higher education context. The literature review started from a promising large number of studies, published since 1990, but after applying the inclusion and exclusion criteria, a rather small number of studies remained. This small number is in sharp contrast to the actual problem at hand. Internationally growing numbers of students in higher education experience challenges due to having to study in an L2 context. It is promising that the studies also center on the challenges presented to lecturers. Only a small number of the studies in the literature review actually presented empirical evidence to underpin their impact. As such, the L2 research agenda becomes clear. The list of didactical strategies is therefore a starting point for future research to focus on their efficacy and efficiency. Attention should be paid to consider the “fit” between these L2 strategies and student and teacher characteristics, next to attention to be paid to the nature of the learning content. Next little has been said about mediating and interactions variables, such as variation in L2 language mastery, L2 motivation, professional development of staff, etc. Nevertheless, it is clear from the review of the literature that educational practice is becoming aware of the need to adopt adequate strategies to meet the needs of a growing group of L2 students.

REFERENCES

References marked with an asterisk indicate studies included in the review


