The Gap between Theory and Practice: Problems and Possibilities

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Abstract

This paper treats the classic problem of the gap between theory and practice in the field of second and foreign language education. The research-practice gap has been known to exist for more than two decades, and whether or not the gap should be filled has been a controversial issue. Some researchers claim that the gap must be filled (Chapelle 2007), while others argue that it is not necessary to do so since not all research is pedagogically motivated (Han 2007). Similarly, some practitioners feel instruction should have an empirical basis, but others feel research-based pedagogical implications are of little use in the classroom.

With this background, we will first examine the cause of the gap and identify three factors that contribute the problems: social perception about researchers' roles and expertise as opposed to those of teachers; difference in cultural orientation between researchers and teachers; and the different opinions and interests within each profession. We will then consider ways in which the research-practice divide may be filled. More specifically, we will consider how researchers and teachers may be able to do independently and collaboratively.

1. Introduction

In the field of language education, the gap between theory and practice has been known to exist for more than two decades. Some researchers claim that the gap must be filled (Chapelle 2007), while others argue that it is not necessary to do so (Han 2007). Similarly, some practitioners feel instruction should have an empirical basis, but others feel research-based pedagogical implications are of little use in the classroom.

With this background, this paper focuses on the very issue of the theory-practice gap. First, I will discuss the reason for the divide in terms of social and cultural differences between teachers and researchers. I will also show how the variations within each profession complicate the problem. I will then discuss what can be done in order to link theory and practice.

2. Factors affecting research-practice gap

The gap between research and practice is not a new problem and occurs in many fields besides language, such as medical science, clinical psychology and child education. In the field of second language acquisition [SLA], which produces many pedagogically motivated studies (Erlam 2008), the controversy as to whether SLA research should be linked to language teaching practice has been debated for more than two decades (Lightbown 1985, 2000, V. Cook 1999, Stewart 2006, Han 2007, Chapelle 2007, Ellis 2010a, 2010b). For example, Han (2007) argues against linking research to practice because not all SLA researchers have practice in mind and the results of many SLA studies are not validated enough to make claims about teaching. On the other hand, Chapelle (2007) states that pedagogical implication drawn from research, including new and unreplicated studies, should benefit the practitioners, because insights from these studies can start new dialogues about practice.

The research-practice divide is created by social and cultural difference between researchers and teachers as well as intra-professional variations. The following sections discuss how these factors create the gap.

3. Social prestige and public perception

One of the major causes of the gap is the difference in perceived social status between researchers and teachers. Stewart (2006) points out researchers generally receive privileged status and are regarded as experts on teaching as long as they engage in educational research. On the other hand, teachers do not receive an

equal degree of recognition. Their knowledge and opinions are often undervalued, despite their in-depth knowledge of actual teaching contexts and practice.

This unfortunate perception is due to the difference in how excellence is determined in research and practice. Researchers' performance is evaluated on the basis of publications, which are considered as a visible and objective measure of expert knowledge and excellence. On the contrary, teachers' expertise is evaluated on the basis of teaching. Excellence in teaching can be recognized by teacher recognition and teaching awards. Other than that, it is not as readily visible as something concrete, like the number of publications and public talks. In addition, the quality of teaching is not easily understood by the public or those people who have no teaching experience. As a result, the perception that researchers are experts and teachers are not persists.

4. Cultural orientation

Labaree (2003) attributes the cause of the gap to the difference in cultural orientations between researchers and teachers. According to Labaree, researchers' cultural orientation is analytical, intellectual, universal, and theoretical whereas teachers' orientation is normative, personal, particular, and experiential. This difference creates a culture clash and misunderstanding between researchers and teachers.

More specifically, researchers' primary interest is seeking empirical knowledge, supported by solid evidence which is obtained through systematic observations and/or experimentation. Research findings often challenge beliefs, common sense, or statements of authority because these pieces of knowledge and beliefs are not necessarily supported by verifiable evidence and can be formed on the basis of superficial observations and impressions. Researchers pursue empirical knowledge in three types of research: basic research, applied research, and practical research (Seliger & Shohamy 1989). Basic research concerns with inquiry about theory itself such as linguistic theory and human perception mechanisms. This type of research is not necessarily relevant to teaching. Applied

research deals with inquiries evolved from basic research, and it helps to construct and revise theories and hypotheses formed by basic research. An example of applied research would be the studies of acquisition orders and sequence in the 1970s and 1980s (Dulay & Burt 1974, Bailey, et al. 1974, Krashen, et al. 1978, Pienemann 1984, Clahsen & Muysken 1986). This type of research may or may not be linked to practice. Finally, practical research investigates aspects of the theory applied for practical purposes such as material development and testing materials (Hatasa 2003, Narita 2012). The three types feed each other to provide research objectives for other types, but not all the research is relevant to teaching.

When researchers make pedagogical implications, they usually do so in order to provide generalized information to a broad audience of educators using methods that are found to be systematic, reliable, reproducible and replicable in quantitative studies. They are rarely interested in providing specific suggestions as to what works in different classrooms.

Teachers, on the other hand, live in a highly contextual world. They work in a specific learning context, have an in-depth knowledge about their students including their strengths, weaknesses, personality, interests and emotional states. They know a lot about their schools' missions, facilities, local community needs, and what they need to do in order to balance the variety of needs. Indeed, teachers are the responsible agents for all such needs and requirements. In addition, the classroom is a multifaceted environment where many things happen simultaneously, and teachers need to make moment-by-moment decisions constantly. For these reasons, they are interested in ideas that they can readily use in order to enhance instruction, rather than abstract suggestions.

5. Intra-professional variations
The gap between research and practice is further complicated by differences in opinions and beliefs within each profession. Researchers tends to focus on a specific area of inquiry such as word recognition, phonology, syntax, pragmatics, reading, etc. and they do not necessarily know about or are not interested in other

fields. As a result their insights from research findings tend to have a narrow focus and may be linked to practice only indirectly.

For example, Jones & Ono (2005) and Mori (2005) pointed out the unnaturalness of textbook dialogues and suggest maximizing realistic communication in textbooks because exposure to real talk helps learners to develop their intuitions about what Japanese native speakers actually do in real interactions. Experts in sociolinguistics, discourse and conversation analysis in other languages have made similar suggestions for more than thirty years (Gilmore 2007). The suggestions have an intuitive appeal because instruction should prepare learners for real-life communication in the target language by linking classroom language learning with actual language use outside the classroom. Real-life materials and authentic contexts are useful resources for this purpose.

However, the suggestions are unrealistic when a learner's cognitive process is considered. Unlike native speakers, beginning-level learners have a limited processing capacity and are unable to attend to all facets of input simultaneously (DeKeyser 2005, VanPatten 2007, Ellis 2008). They can focus on the target form if it is presented explicitly or in a focused manner, but cannot do so easily if it is embedded in natural discourse. As natural conversation is more complex, the learner's attention may be distracted and directed to features other than the target form. Also, learners may not be able to notice discourse and pragmatic features, when their attention is directed toward the target form and, therefore, truly authentic materials may not assist the learning of such features. In fact, language learners receive modified input and produce simple output even in a natural setting. Native speakers speaking with children and L2 learners tend to have a simpler discourse organization and use controlled topics (Ferguson 1971, Hatch 1983, Skouritarides 1981, Freed 1981, Long 1981). Although modified input and simplistic output are natural parts of low-level language learners' conversations, the researchers regard modified input to be inferior as L2

instructional resources and deem them unnatural just because they are different from adult NS-NS conversation.

Another problem with Jones & Ono's (2005) and Mori's (2005) suggestions is that they are too vague to implement. It is not clear what amount of realistic communication is considered adequate for what level, and why. When and how should realistic communication be used? How can teachers assist learners to control the amount of new and incomprehensible input in natural conversation? How may these modified textbooks be used to facilitate the acquisition of pragmatic features, as well as the target linguistic items in the lesson?

Variation in opinion is also seen among teachers, but it occurs for a very different reason. As mentioned earlier, teachers usually focus on a specific learning environment, rather than a wide range of instructional contexts. In this environment, teachers form a belief about what works and what doesn't work, and it shapes what, when and how they teach language. However, teachers have limited opportunities to objectively evaluate the validity of their opinions and beliefs outside of their teaching contexts, unlike researchers whose opinions are constantly challenged by other researchers. This allows a wide variation in teacher beliefs even if they think they agree on general approach.

The following comments by the reviewers of my textbooks illustrate how teachers' opinions vary. The reviewer comments on the grammar section show that some teachers think the grammar explanations are clear while others do not. Some like the detailed explanations but others think too much information is provided. Some are more function oriented, while others are more form-oriented.

Q: Grammar. Are grammar topics clearly presented? What (if any) specific changes would you make to this section?
- Generally clear.
- Grammar explanation is confusing
- Likes numbering of notes

- Too many notes, needs better organization
- More explanation needed
- Introduce functions according to content, not pattern.
- Should not tell students that particles may be omitted
- Add phonetic information.

The textbooks have been reviewed regularly by an anonymous group of teachers for more than ten years, and these kinds of disagreements have been consistently observed in all reviews. Also, the disagreements are seen not only in grammar but also other components such as activity types, vocabulary, kanji, reading and so on.

The variations in teacher beliefs have also affected the results of many method comparison studies. Teachers and teacher trainers have continuously looked for the better teaching methods (Scherer & Wertheimer 1964, Smith 1970, Asher 1977, Palmer 1979, Hammond 1988, Allen, et al. 1990). However, the results have been controversial for most of the studies. This is because even within a single method, teaching practice varies considerably because of the difference in teachers' beliefs (Ellis 2008). In addition, teachers differ in how they evaluate students' performance. For example, Kondo-Brown (2002) demonstrates experienced Japanese teachers vary in terms of strictness and the weight on grammatical accuracy in evaluating students' compositions in the placement test.

The intra-professional variations complicate the matter further. Researchers may or may not offer pedagogical suggestions, and even if they do, they may be biased because they tend to disregard factors affecting language learning outside of their own research area. Also, whatever researchers say about instruction may be interpreted differently by different teachers.

6. Filling gaps
The gap between research and language pedagogy can be bridged in a number of ways. First, regardless of the types of suggestions they wish to make (e.g., an

introduction of new teaching ideas, considerations for syllabus design, general guidelines for classroom management, etc.), researchers should keep the complexity of the classroom setting in mind. On this basis, they should consider (1) whether it is indeed desirable to make a pedagogical suggestion based on the given research findings, (2) if so, what type of contribution the research results can make, and (3) for what teaching context is the suggestion appropriate.

As I mentioned earlier, the findings from applied research are not necessarily linked to practice. When they are, they often have an indirect relationship to pedagogy. They provide issues for teachers to consider rather than providing empirical evidence for a particular teaching technique or method. For example, previous research has shown learners' strong preference for the one-to-one principle (Andersen 1984) in the early stage of L2 acquisition (Bardovi-Harlig 2007, Long 2007). The one-to-one principle states "An interlanguage system should be constructed in such a way that an intended underlying meaning is expressed with one clear invariant surface form (or construction) (Andersen 1984: 79). This means that learners have difficulty acquiring multiple forms with the same or similar meanings (e.g., Japanese giving-receiving verbs, numeral classifiers, and conditional forms), or multiple meanings or functions with a single form (e.g., the resultant state and progressive interpretations of -te iru.) Although the one-to-one principle does not suggest a method of teaching grammar, it alerts teachers that teaching multiple forms for one meaning or multiple meanings for one form at the same time would cause learning difficulty. Similarly, forms with overlapping meanings are hard to acquire and the simultaneous introduction of these forms may confuse students.

Another theory that can be applied to practice is the Projection Hypothesis (Zobl 1983, Gass 1982), which states that learning a marked form facilitates the acquisition of an unmarked form. A form is considered unmarked if it is more common, more natural, and/or easier, while marked forms is less common, less natural and more difficult. For instance, a relative clause with the subject function (e.g., "a man who introduced Bob to me here yesterday.") is unmarked because it

is easier to process and more commonly found in languages throughout the world. On the other hand, the object of preposition function (e.g., "a man to whom Bob introduced me") is marked because it is harder to process, less natural, or does not exist in many languages. Gass (1982) tested the validity of the Projection Hypothesis by teaching one group of learners only the marked form of relative clauses and the other group the unmarked form only. She found that the group who received the instruction of the marked relative clauses acquired the unmarked subject relative clauses without being taught. However, the learners who were taught the subject relative function acquired only the subject relative and did not acquire the object of preposition function or other forms of relative clauses.

Ishida (2004) found a support for this hypothesis with Japanese aspectual forms. In Japanese the progressive use of *-te iru* (e.g., *ame ga futteimasu*, "It is raining.") is an unmarked form because the progressive interprataion is more common in the world. The resultative use (e.g., *hito ga kiteiru*. "someone has come here.") is less common and thus marked. Previous research has shown the resultative use is more difficult than the progressive use (Shirai & Kurono 1998), but Ishida obtained opposite results. She examined the effectiveness of recast for marked and unmarked forms of *-te iru*. The results showed that students' accuracy on both forms improved over time, but they performed better on the marked form than the unmarked progressive use. The difference between her study and the previous studies is in the timing of the instruction of the two forms. The participants in her study received the instruction of the resultative use before the progressive use. On the other hand, the learners in the previous studies learned the progressive use first or both forms at the same time. The results of these studies indicate that teaching the easier form of a structure before the difficult form or both of them simultaneously may hinder the acquisition.

In the case of practical research, the results can be readily applied to practice, provided that the characteristics of learning context and learners are similar to the one in which the research is conducted. For example, Narita (2012) examined the applicability of Schmidt's (1990) Noticing Hypothesis to the

teaching of Japanese evidentiary forms *-soo da*, *-yoo da*, *-rashii*, and *-mitai da*. According to the Noticing Hypothesis, L2 learners must first consciously notice the target form in the input in order to acquire it. Narita used the pragmatic consciousness-raising activities (PCR), which is an inductive approach based on the hypothesis. It is designed to raise awareness of how language forms are used appropriately in a given context to a group of students. The results of the quasi-experimental study showed the students who received the PCR instruction outperformed the students in the control group in the immediate and delayed posttests. She demonstrated the effectiveness of PCR in instruction of L2 pragmatics.

Another way to fill the gap between research and practice is to apply research results to teacher training. Ellis (2010b) provided principles of adapting research to teacher training. Ellis (2005, 2010a) also summarized research findings and proposed the following research-based teaching principles:

Principle 1:   Instruction needs to ensure that learners develop both a rich repertoire of formulaic expressions and a rule-based competence.

Principle 2:   Instruction needs to ensure that learners focus predominantly on meaning.

Principle 3:   Instruction needs to ensure that learners also focus on form.

Principle 4:   Instruction needs to be predominantly directed at developing implicit knowledge of the L2 while not neglecting explicit knowledge.

Principle 5:   Instruction needs to take into account the learner's 'built-in' syllabus.

Principle 6:   Successful instructed language learning requires extensive L2 input.

Principle 7:   Successful instructed language learning also requires opportunities for output.

Principle 8:   The opportunity to interact in the L2 is central to developing L2 proficiency.

Principle 9:   Instruction needs to take account of individual differences in learners.

Principle 10: In assessing learners' L2 proficiency it is important to examine free as well as controlled production.

Similarly, Lightbown (1985, 2000) advocates providing teachers with research-based generalizations such as "There are predictable sequences in L2 acquisition such that certain structures have to be acquired before others can be integrated" (Lightbown 2000: 442). She argues that this type of generalization allows teachers to design syllabi and activities.

In addition, teachers can link research and practice by becoming an evaluator of researchers' pedagogical implications because researchers may not be experts in teaching and their pedagogical suggestions may not be taken at face value. They may make pedagogical implications even when the research findings cannot lead to sound pedagogical implications or the research is based only on laboratory study, an environment that is very different from a classroom. When they discuss pedagogical issues, researchers may have a very narrow focus and disregard other factors that teachers need to face in everyday teaching. Thus, the validity and reliability of their suggestions should be carefully examined by those who have in depth practical knowledge about classroom practice.

In order to evaluate researcher's claims, Cook's (1999) criteria for valid implication can be used as a guideline for this purpose.

- Research should be valid. It should have a sound methodology, adequate data, and a conclusion drawn from the actual research.
- Research should be ethical. It should be conducted with the learners, and should not exploit the learners.

- Research should be sufficiently general to allow teaching implications in different teaching situations, and avoid drawing a general teaching implication from specific research.

- The implication for language teaching should concern the language(s) investigated in the research.

- The implication for learners should fit the profile of learners who participated in the research.

- The implication for instructional goals should fit the coverage of language learning areas investigated in the research.

When evaluating researchers' implications, teachers should be careful about their own bias and avoid overly relying on their experiences. It is important to maintain critical attitudes of one's own teaching and be open-minded about what researchers might say. Also, teachers should examine pedagogical suggestions from different fields holistically, and from time to time, pay attention to theories and research development as well. There are many teacher friendly theory and practice books on the market, and reading them during a break may be a good idea.

Finally, more teacher-researcher collaborations should be conducted (Pica 2004, Narita 2012, Chamot, et al. 1999, Erlam (2008) . For example, teachers and researchers can design and conduct practical research together. Many motivated teachers have already been trying out innovative teaching techniques. However they are not trained to examine their effectiveness using empirical methods. A teacher-made survey can tell a lot about how students feel about the method, but it does not provide convincing and objective evidence. Researchers can assist teachers to obtain such evidence. In addition, they can provide a detailed account of learner progress and strengths and weaknesses of the method.

Chamot and her colleagues (Chamot, et al. 1993, Chamot et al1999) conducted strategy training in the US high school Japanese program for two years to examine both short-term and long-term effects of training on reading and

listening development. This longitudinal study showed explicit instruction of learning strategies were helpful although teachers found some of the strategies (e.g., imagery, self-assessment) not useful. Erlam (2008) presented a set of research-based principles as a guide to effective teaching, and had teachers check how many of the principles were actually applicable in their teaching contexts. This project is innovative in that teachers took charge of selecting and evaluating these principles and tried to implement them.

7. Conclusion

This paper focused on the long-standing issue of the division between theory and practice in education by exploring the reasons the gap occurs and persists. Although both researchers and teachers are professionals in their respective fields, the difference in social perception between them causes the gap. Also, teacher's world and cultural orientation is in the opposite continuum of the researcher's world. In addition, diversity within each profession allows a wide variation in interpreting teaching practice and research results.

I have suggested some ideas that both researchers and teachers can do to bridge the gap. Researchers should make pedagogical suggestions more carefully by analyzing the teaching context to which the generalization can be made. They can also apply the findings from research in teacher training. Teachers, on the other hand, can be critical evaluators of pedagogical implications and engage in collaborative research projects with researchers. It may take a lot of time and efforts to fill the gap. However the outcome of such efforts should greatly enhance second language instruction, and helps teachers and researchers to understand the process of how learners acquire the language.

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