A principled approach to incorporating second language acquisition research into a teacher education programme

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ABSTRACT -

Second language acquisition (SLA) researchers have not been slow to assert the importance of SLA research for language pedagogy (LP). There is, however, no consensus on the nature of the relationship between SLA and LP. A number of sometimes conflicting positions can be identified, ranging from a super-cautious "don't apply" to a confident "go ahead and apply" while also claiming that the relationship should not be one-way but symbiotic. In this paper, the relationship in terms of a framework that links (1) SLA researchers, (2) classroom researchers, (3) teacher educators, and (4) language teachers is probed. Using this framework, I propose a set of general principles that can inform the SLA/LP relationship and serve as basis for designing a course as part of a graduate programme in TESOL or foreign language teaching. The principles concern both the "what" and the "how" of the relationship between SLA and LP, that is, what SLA topics are of relevance to teachers and how technical knowledge drawn from SLA can interface with the practical knowledge that informs actual teaching. These principles are then applied to examine one particular aspect of teaching—corrective feedback—and how this is informed by SLA.

KEYWORDS: SLA research, teacher education, language teaching, corrective feedback

Introduction

Second language acquisition (SLA) researchers have not been slow to assert the importance of SLA research for language pedagogy (LP). There is, however, no consensus on the nature of the relationship between SLA and LP. A number of sometimes conflicting positions can be identified, ranging from a super-cautious "don't apply" to a confident "go ahead and apply" while also claiming that the relationship should not be one-way but symbiotic.

I probe the relationship in terms of a framework that links (1) SLA researchers, (2) classroom researchers, (3) teacher educators and (4) language teachers. Using this framework, I propose a set of general principles that can inform the SLA/LP relationship and serve as basis for designing a course as part of a graduate programme in TESOL or foreign language teaching. The principles concern both the "what" and the "how" of the relationship between SLA and LP, that is, what

SLA topics are of relevance to teachers and how technical knowledge drawn from SLA can interface with the practical knowledge that informs actual teaching.

Finally, I apply these principles to the examination of one particular aspect of teaching—corrective feedback—and how this can be informed by SLA. I then review the theory/research that has addressed the role of corrective feedback in L2 acquisition as well as various pedagogic proposals for tackling corrective feedback. Finally, I present an example of a unit on corrective feedback from a masters' level program and discuss how this unit reflects the general principles.

A framework for examining the SLA-language pedagogy nexus

The framework shown in Figure 1 is based on the assumption that the relationship between SLA and language pedagogy needs to be specified in terms of the actors involved rather than, abstractly, in terms of the kinds of actions they perform. A second assumption of the framework is that it is classroom researchers and teacher educators who mediate between SLA researchers and teachers. Of course, actors can assume more than one identity. For example, SLA researchers often also function as teacher educators while teachers can act as classroom researchers.

SLA researchers

Two kinds of SLA researchers can be identified (Kramsch, 2000)—those who engage in "basic research", which focuses on the general principles and processes of L2 acquisition and is directed at constructing a general theory, and those who engage in "applied research", which focuses on the teaching and learning of specific L2s in classroom or naturalistic settings. A characteristic of much basic research is the "internecine feuding and fragmentation" (Larsen-Freeman, 2000, p. 165) that arises as researchers seek to promote and immunize their own preferred theories and epistemologies over those of their rivals. It is basic research that commentators such as Freeman and Johnson (1998) and Allwright (2005) had in mind when they argued that "academic research ... is of negligible value to current classroom participants, who need their understandings now" (Allwright, 2005, p. 27). More promising for building a nexus with practitioners, then, is applied research. Applied researchers take as their starting point questions of pedagogical significance and also are cognizant of classroom realities (Han, 2007).

Figure 1A framework for examining the second language acquisition-language pedagogy nexus



Classroom researchers

Many applied SLA researchers elect to conduct their research in a laboratory setting, seeking to make a connection with teachers by selecting participants (learners and teachers) drawn from real-life classrooms. Other applied researchers, however, investigate learners and teachers within classroom contexts. There are advantages and disadvantages of so doing. The main advantage is that research carried out within classrooms has high ecological validity and thus is more likely to be heeded by practitioners. The main disadvantage is that usually it is necessary to make use of intact classes, which precludes the possibility of forming randomized groups for experimental studies.

Research conducted in classrooms need not necessarily be any more applicable to language pedagogy than research conducted in laboratories. As Wright (1992) noted what is really needed is research on classrooms rather than research in classrooms. Nor does it follow that research conducted in (or on) a specific classroom can be transmitted to teachers in the form of recipes for effective practice, as research findings from one classroom setting may not be applicable to a different classroom setting.

Teacher educators

Teacher educators can adopt a number of different roles (Wallace, 1998). They can function as transmitters of information about SLA. As Wallace noted, this role assumes an applied science theory-to-practice model of education. Teacher educators can also function as mentors, as in a craft or apprenticeship model of education. Finally, they can function as awareness-raisers, encouraging teachers to examine their own teaching practice as in a reflective model of education. According to Crandall (2000), there has been a gradual shift in the role played by teacher educators. While the mentor role has always been evident in programmes that include a practicum, teacher educators have increasingly abandoned the transmitter role in favour of the awareness-raising role. Crandall's own view is that teacher education requires teachers to engage with teachers in all three roles depending on the specific needs of individual teachers.

Somewhat surprisingly, there have been relatively few studies of how teacher educators approach SLA when functioning in these different roles and even less of what impact they have on teachers. Studies that have attempted this include McDonald, Badger, and White (2001), Lo (2005), Angelova (2005), Erlam, (2008), McDonough (2006), and Busch (2010).

All these studies demonstrate that knowledge of SLA can have an effect on trainees' beliefs about language learning. In the case of McDonald et al., a fairly traditional course, where they functioned mainly as transmitters of knowledge about SLA, brought about changes in the students' beliefs. In the case of Angelova, Erlam, and McDonough, more innovative educational practices (mini-lessons in an unknown language, awareness-raising activities based on published research and an action-research project) were also found to have an impact on trainees' beliefs. Busch's SLA course, which included an experiential component (i.e., the students were asked to undertake 10 hours of tutoring an ESL student), also

reported clear evidence of changes in the students' beliefs about how an L2 is learned—in particular, with regard to the role that errors play in learning and the length of time it takes to learn an L2. Only one study (McDonough, 2006), however, investigated whether teacher education had any effect on trainees' actual teaching. There is clearly a need for more research on the roles that teacher educators can play in mediating between SLA researchers and teachers.

Teachers

A distinct pendulum swing has taken place in applied linguistics over the last thirty years or so. Where the 1970s and 1980s were characterized by a focus on the learner and a concern for ensuring that teaching took account of how learners learn, the 1990s and the first decade of this century have been more concerned with teacher cognition and teacher-learning (Freeman & Johnson, 1998). Teachers are no longer seen as technicians implementing methods prescribed by researchers but as individuals with their own sets of beliefs about teaching, formed in large part by their prior experiences of classrooms as learners and as trainee teachers, and with their own theories of action that guide the decisions they make as they teach. Thus, the key question has become not "What do teachers need to know about SLA?" but "How can SLA contribute to teacher-learning?" This question can only be answered if teachers are allowed to articulate the specific issues relating to learning that they see as important and in need of attention.

There is, however, a problem in this. What if teachers, lacking in any knowledge of SLA, identify issues in need of attention that have nothing to do with L2 acquisition? McDonough (2006) in the action-research study referred to above listed the topics her students elected to investigate. They were the effectiveness of specific teaching practices (e.g., grammar instruction), ways of encouraging class participation, techniques for transitioning between classroom activities and broader issues to do with course assessment and syllabus design. None of these were specifically concerned with L2 acquisition. Teachers, understandably, are concerned with teaching rather than learning. If this is so, then teachers may need some input about SLA to help them "theorize" their problems in relation to learners and learning. As Widdowson (1990) pointed out, teacher research cannot take place unless teachers engage in the process of conceptual evaluation.

However, as Widdowson went on to argue, any input must be "client-centred". Thus, the question arises as to which SLA topics should figure in an SLA course/guide for teachers. Pica (1994) provided an answer to this. She took as her starting point not SLA but the questions that teachers had asked her "both in the privacy of their classrooms and in the more public domain of professional meetings" (p. 50). These questions covered such topics as the relative importance of comprehension and production, the role of explicit grammar instruction, and the utility of drill and practice. Interestingly, one topic that figures strongly in SLA textbooks—the order and sequence of acquisition—did not figure in the list of questions.

This framework for examining the SLA-language pedagogy nexus enables us to see the importance of examining the roles of the various actors involved—SLA

researchers, classroom researchers, teacher educators and teachers. It suggests that the key roles are those played by classroom researchers and teacher educators, who function as mediators between SLA researchers and teachers. It also suggests that the topics that classroom researchers choose to investigate and teacher educators choose to include in their courses need to be filtered through teachers' own ideas about what is important for learning but that these ideas need to be fine tuned by a better understanding of SLA. Building on these insights I will now attempt to formulate a set of general principles that can guide how SLA can be effectively used in language teaching.

SLA research and language teaching: Some guiding principles

Cook (1999) proposed six requirements that, in his view, any use of SLA research for teaching must meet:

- 1. The research to be applied should be valid (i.e., have a sound methodology, adequate data, and sound conclusions).
- 2. The research must be ethical (e.g., it is not appropriate for the research to have exploited learners by placing them in a context where they are not expected to succeed).
- 3. The research must be of sufficient generality to allow for extrapolation to different contexts.
- 4. There needs to be a match between the language(s) investigated in the research and the language being taught.
- 5. There needs to be a match between the profiles of the learners being investigated and the profiles of the students being taught.
- 6. The coverage of the language learning areas needs to accord with the instructional goals (Cook suggests that the overly narrow research focus on morphosyntax limits the usefulness of SLA for language teaching).

These are a useful set of principles that can guide teacher educators in their choice of specific research studies to include in SLA or methods courses. They can also serve as a set of guidelines to help teachers evaluate the relevance of any pedagogic implications proposed in a research article.

The principles that I propose below—first published in Ellis (2010)—are directed at designing a course in SLA as part of a graduate programme in TESOL or foreign language teaching. They concern the "what" and the "how" of the relationship between SLA research and language teaching—what SLA topics are of relevance to teachers and how technical knowledge drawn from SLA can interface with the practical knowledge that informs actual teaching.

Principle 1: The overall goal of an SLA course for teachers should be to contribute to teacher learning by assisting teachers to develop/modify their own theory of how learners learn an L2 in an instructional setting.

A corollary of this principle is that the theory that teachers develop should be explicit. Teachers are likely to come to the SLA course with a set of beliefs about how learning takes place. The purpose of an SLA course is to assist them to evaluate these beliefs and modify

them in the light of information from SLA that they find relevant to their own instructional setting.

Principle 2: The topics covered in an SLA course need to be demonstrably relevant to teaching.

Relevance can be achieved in two ways. The way often advocated is to invite the teachers themselves to identify the topics they find relevant. However, as noted above, teachers may not be able to evaluate the relevance of some SLA topics until they have information about them. An alternative strategy, therefore, might be to consult handbooks for teachers (e.g., Harmer, 1983; Ur, 1996) to identify pedagogic issues deemed important for teachers and then relate these to SLA topics.

Principle 3: The topics covered in an SLA course should consist of "ideas" rather than "models".

For example, it would be preferable to tackle an idea such as "learners inevitably and naturally commit errors" and "learners sometimes make errors and sometimes don't" than to examine models such as Krashen's Monitor Model or N. Ellis' emergentist theory of learning. Theoretical positions should emerge out of the "ideas" discussed in the course.

Principle 4: The texts selected for an SLA course needs to be comprehensible to teachers who lack technical knowledge about SLA.

In effect, this means that the texts should have been written for teachers and not for SLA researchers or applied linguists (or even for students preparing to become applied linguists). A good example of an accessible text for teachers is Lightbown and Spada (2006). In addition, teachers might be invited to refer to more technical texts (e.g., Ellis, 2008) to research specific topics of interest to them in greater detail.

- **Principle 5:** Specific research articles used as readings should be selected bearing in mind the criteria proposed by Cook (1999). Ideally, these articles should be reports of classroom research rather than laboratory studies.
- **Principle 6:** Any proposals emanating from the SLA "ideas" examined in the course or from the pedagogical implications of research articles should be viewed as "provisional", to be evaluated in the light of teachers' own classrooms and experiences of learning and teaching an L2. This process of evaluation needs to be conducted explicitly.

One way of facilitating evaluation might be to make use of published responses to articles. For example, Nobuyoshi and Ellis' (1993) study of pushed output elicited a response from Hopkins and

Nettle (1994). After reading the original article and the response, teachers can decide to what extent they consider Nobuyoshi and Ellis' pedagogical proposals applicable to their own classroom.

Principle 7: Teachers can benefit from reflecting on their experience of learning a new language as part of the SLA course. Alternatively, if the course included an experiential component, teachers can be encouraged to relate what they learn in the course to their own experience of teaching an L2.

As in Angelova (2005), teachers can be given mini-lessons in a new language which have been designed to expose them to specific pedagogical practices (e.g., deductive grammar teaching; task-based teaching), to relate these to "ideas" from SLA introduced in the course, and to evaluate the practices in terms of their own experiences of learning. Or, as in Busch (2010), they can be asked to evaluate a set of belief statements about L2 learning in the light of their teaching experience.

Principle 8: Awareness-raising tasks based on L2 data or on SLA texts can be used to encourage teachers to evaluate the relevancy of specific "ideas". Such tasks may prove more effective in making the link between technical and practical knowledge than more traditional, transmission modes of teacher education.

Awareness-raising tasks serve two purposes in teacher education. They guide teachers to the self-discovery of "ideas" and they encourage reflection on "ideas" presented to them in texts. An example of an awareness-task directed at teachers' use of questions in the classroom can be found in Ellis (1994) while a good example of awareness-raising activities designed to stimulate reflection can be found in Erlam's (2008) report of her in-service workshop for teachers.

Principle 9: Teachers need opportunities to become researchers in their own classroom as well as consumers of SLA research. This can be achieved in a variety of ways—through collaborative research with an SLA researcher or through action research and exploratory practice.

In the case of collaborative research, it is important that it is the teacher who identifies the issues to be investigated, not the SLA researcher. That is, the issues must be drawn from teachers' own understanding of language pedagogy as this is practiced in their own classrooms. The role of the SLA researcher should be that of facilitating the teacher's research by providing relevant information from SLA and helping to develop appropriate data collection instruments and procedures.

In the case of action research, teachers will identify problems

relating to their own teaching. In the case of exploratory practice they will identify aspects in the life of their classroom that they wish to gain a better understanding of. These problems and issues are not likely to be the kinds of problems and issues that SLA researchers would choose to examine. This is not important. What is important is that teachers are able to relate SLA ideas to their own research questions. SLA is best viewed as a body of technical knowledge that can illuminate pedagogically inspired questions.

It may also be useful to encourage teachers to give public presentations of their research. McDonough (2006) reported that the teaching assistants in her course appreciated the assistance they received in publicly disseminating their research. One advantage of this is that it narrows the gap between "researchers" and "teachers". A variety of ways of reporting teacher-research should be encouraged, including narrative forms of reporting.

Principle 10: It is always the teacher who ultimately determines the relevance of SLA constructs and findings for teaching, not the SLA researcher.

As Freeman and Johnson (1998, pp. 409-410) put it:

Clearly any understanding of teaching must be anchored in examinations of learners and learning. However, teaching as an activity cannot be separated from either the person of the teacher as a learner of the contexts of school and schooling in which it is done.

A corollary of this principle is that it is the SLA researcher who determines the relevance and acceptability of the findings of teacher research for SLA.

These principles are unlikely to be agreed to by every SLA researcher, teacher educator or teacher. They require SLA researchers to be prepared to put aside the requirements of the academy in which they work, at least when they take on the role as teacher educators. They require teacher educators to allow teachers a much greater say in the content of SLA courses than is the norm and also to acknowledge that traditional modes of transmitting knowledge about SLA may not be the most effective way of assisting teachers to develop/modify their own theories of language learning. It requires teachers to accept that technical knowledge is of relevance to their own teaching and to seek ways in which they can make it relevant. These principles are perhaps best seen as a set of proposals for how to design and implement an SLA course for teachers that can be challenged and, hopefully, investigated empirically. Thus, a final proposal is as follows:

Principle 11: Teacher educators mounting SLA courses for teachers (or including SLA content in methods courses) need to engage in evaluation of these courses in order to establish which "ideas" teachers found useful and which teacher education methods were most successful in helping teachers develop/ modify their own theories of language learning.

Applying the principles: An example

Corrective feedback is a good example of a construct that has attracted the attention of both SLA researchers and teacher educators. I will begin by briefly describing how it has been tackled by each of these as a preliminary to describing how it might be handled in a course on SLA for teachers.

Corrective feedback in SLA

In SLA there are a number of different positions regarding the role of corrective feedback (CF) in L2 acquisition:

- 1. A strict Universal Grammar theory views corrective feedback as a source of negative evidence. It rejects any role for CF in the acquisition of linguistic competence as this is seen as dependent entirely on positive evidence (Schwartz, 1993). However, an innatist theory such as UG does allow for CF to contribute to the development of explicit L2 knowledge.
- 2. Interactional-cognitive theories see CF as making a substantial contribution to the acquisition of both implicit and explicit L2 knowledge. The main interactional-cognitive perspectives relevant to CF are the interaction hypothesis (Long, 1996), the output hypothesis (Swain, 1985), and the noticing hypothesis (Schmidt, 1994). CF assists acquisition when learners are focused primarily on meaning in the context of producing and understanding messages in communication and when they produce errors and receive feedback that they recognize as corrective. In this way, learners receive information not just about linguistic form but also about form-meaning mappings (i.e., they are able to see how a particular linguistic form realizes a particular meaning in context). Interactional-cognitive theories seek to account for the universal properties of CF as these relate to L2 acquisition.
- 3. In sociocultural theory (SCT), CF is also viewed as potentially enabling learners to perform specific linguistic features correctly through the mediation of a more expert other. CF helps the learner to move from other-regulation in the zone of proximal development to self-regulation, where the learner is finally able to use a linguistic feature correctly without assistance. In sociocultural theory what constitutes a facilitative form of correction at one time for one learner might not be so for another learner or for the same learner at a different time, either because it is pitched at a level too far in advance of the learner or because it fails to "stretch" the learner by posing a sufficient challenge (see Aljaafreh & Lantolf, 1994). Thus, SCT treats CF as a highly contextualized and individualized phenomenon.

CF has also been the object of numerous empirical studies. Descriptive studies (e.g., Lyster & Ranta, 1997) have sought to develop taxonomies of the different corrective strategies employed by teachers in communicative language classrooms. Experimental classroom studies (e.g., Lyster, 2004) have sought to identify whether CF contributes to acquisition (operationalized typically as statistically significant gains in linguistic accuracy) and also to investigate which type of CF (e.g., input-providing vs. output-prompting and implicit vs. explicit) works best for acquisition. Findings have been mixed. For example, some studies (e.g., Han,

2002) show recasts to be effective whereas others (e.g., Sheen, 2006) have found them ineffective. One way to resolve some of these conflicting findings is through a meta-analysis of published experimental studies. Russell and Spada's (2006) meta-analysis reported that CF results in acquisition but failed to establish which CF strategies are more effective due to the small number of studies that met the conditions for analysis. However, a more recent meta-analysis (Lyster & Saito, 2010) reports that output-prompting CF is more effective than input-providing CF.

In a frequently cited sociocultural study of CF, Aljaafreh and Lantolf (1994) demonstrated the advantages of fine-tuning the feedback to enable learners to gradually achieve self-regulation.

To sum up, SLA does not afford a unifying view of CF. There are theoretical disputations. There are different research findings. In these respects, SLA research on CF is no different from SLA research on many other issues (e.g., fossilization, the critical period hypothesis, and the role of form-focused instruction).

Corrective feedback in language pedagogy

The key issues facing teachers and teacher educators in developing a policy for conducting CF were identified by Hendrickson in 1978. They have not changed today. Hendrickson posed five questions:

- Should learner errors be corrected?
- 2. If so, when should learner errors be corrected?
- 3. Which learner errors should be corrected?
- 4. How should learner errors be corrected?
- 5. Who should correct learner errors?

Again, considerable disagreement is evident about what constitutes "best practice" for CF.

Regarding whether errors should be corrected, Ur (1996) noted that positions vary according to the method. In audiolingualism "negative assessment is to be avoided as far as possible since it functions as 'punishment' and may inhibit or discourage learning", in humanistic methods "assessment should be positive or non-judgemental" in order to "promote a positive self-image of the learner as a person and language learner", while in skill theory "the learner needs feedback on how well he or she is doing" (Ur, 1996, p. 243). She pointed out that in the post-method era methodologists are more likely to affirm the need for oral CF, recognizing the cognitive contribution it can make while also issuing warnings about the potential affective damage it can do. She concluded that "there is certainly a place for correction" but "we should not over-estimate this contribution" (because it often fails to eliminate errors) and suggested that it would be better to spend time preventing errors than correcting them.

Differences in opinions are evident in responses to the other questions that Hendrickson raised. For example, while some commentators argue for immediate correction of errors, even during a communicative activity, others (e.g., Willis, 1996) suggest that in fluency work it is better to delay attention to form until the activity is complete (i.e., carry out a post-activity review of errors). Differing

proposals regarding which errors to correct can also be found. For example, teachers have been advised to correct "errors" rather than "mistakes" (Corder, 1967), "global" versus "local" errors (Burt, 1975), and just persistent errors (Ellis, 1993). Nor is there agreement about what teacher educators have to say about how to correct. While some believe that teachers need to be consistent in their method of correcting, others (e.g., Allwright, 1975) argue that inconsistency is natural as teachers need to take account of individual differences in their students. Finally, regarding who should do the correction, teaching methodologists generally favour student self-correction or peer correction over teacher correction but they also acknowledge that this might not always be feasible as students may not be aware they have committed an error or lack the linguistic knowledge to correct it. Students themselves prefer teacher-correction.

Two points emerge from this brief review of pedagogical positions regarding CF. The first is that CF is a very complex issue, with no easy rules-of-thumb available to guide teachers. The second, a corollary of the first point, is that considerable disagreement exists over how best to conduct CF. If, as Hyland and Hyland (2006) point out, CF is "a form of social action designed to accomplish educational and social goals" (p. 10), it would seem to follow that it is not possible to specify a single set of guidelines for CF that is appropriate for all instructional contexts. This has obvious implications for how CF is handled in a teacher education course.

Developing a unit on corrective feedback in an SLA course for teachers

Here I will attempt to apply the eleven principles discussed in the previous section. The teachers I have in mind for the unit have all had experience of teaching in a variety of different contexts and are seeking to enhance their professional status by completing a masters-level course in language teaching (a situation common to many university graduate level programmes). The unit is outlined in Table 1.

In this unit, SLA serves as a resource for exploring a pedagogical issue of importance to teachers. The perspective adopted, therefore, is that of the teacher educator, not that of the SLA researcher. The aim is not "training" but "development". That is, the unit draws on a reflective model of teacher education rather than either a craft/apprenticeship model or an applied science model (Wallace, 1998) and thus accords with Principle 10 (i.e., the teacher needs to determine the relevance of SLA constructs and findings). Such an approach takes account of the fact that the participants are all experienced teachers who have engaged previously with corrective feedback in their own classrooms and hold beliefs about it. A somewhat different approach would be needed for novice teachers.

A key feature of teacher development is that teacher educators should assist teachers to evaluate and further develop their existing beliefs about language teaching, as reflected in Principle 1. This is catered to in a variety of ways in the unit outlined in Table 1, in particular through a comparison of the questionnaire that the teachers complete at the beginning and end of the questionnaire.

Principle 2 concerns the relevance of the topic chosen. Although this topic was chosen by me (as a teacher educator) without consulting the teachers concerned, it

Table 1Outline of a unit on corrective feedback as part of an SLA course for teachers

Topic	Oral corrective feedback in the classroom
Aim	To assist the teachers to examine their own beliefs about oral CF and to develop an explicit theory of CF relevant to their own teaching contexts.
Questionnaire	The teachers complete a questionnaire on CF. The purpose of this is to enable them to state their own beliefs about CF. A secondary purpose is to provide a basis for a final evaluation of the unit by asking them to complete it a second time after completing the unit.
Text	Lightbown and Spada (2006)—students read pp. x to x as a preliminary to work on the topic.
Research articles	(1) Sheen, Y. (2004). Corrective feedback and learner uptake in communicative classrooms across instructional settings. Language Teaching Research, 8, 263–300. The teachers read the article and answer a number of questions designed to help them identify key constructs (such as the types of CF and "uptake") and consider why CF varies from one instructional context to another.
	(2) Nobuyoshi, J., & Ellis, R. (1993). Focused communication tasks and second language acquisition. <i>English Language Teaching Journal</i> , 47, 203-210. Hopkins, D., & Nettle, M. (1994). Second language acquisition research: A response to Rod Ellis. <i>English Language Teaching Journal</i> , 48, 157-161. The teachers read the two articles and evaluate the arguments presented in relation to their own classroom.
Evaluation of "ideas" about CF	 The teachers are presented with guidelines about how to conduct CF in the form of a set of "ideas" about CF. Each idea is discussed and the teachers are invited to agree, disagree with it or modify it. Examples of the "ideas": 1. Teachers should ascertain their students' attitudes towards CF, appraise them of the value of CF, and negotiate agreed goals for CF with them. The goals are likely to vary according to the social and situational context. 2. CF works and so teachers should not be afraid to correct students' errors. This is true for both accuracy and fluency work so CF has a place in both. 3. Teachers should ensure that learners know they are being corrected (i.e., they should not attempt to hide the corrective force of their CF moves from the learners).
Awareness-raising task	The teachers are given a number of corrective feedback episodes taken from a communicative language lesson for young adults and are asked to discuss each episode in terms of whether teacher and student appear to have shared goals in each episode, whether the students show awareness they are being corrected, whether the teacher is able to adapt the CF strategies she employs to the needs

	of the students, whether the students uptake the correction, whether the teacher allows time for this to happen, and whether the students appear anxious or negatively disposed to the correction. They then assess the overall effectiveness of each CF episode.
	Example of CF episode:
	S: I have an ali[bi]
	T: you have what?
	S: an ali[bi]
	T: an alib-? (.2.) An alib[ay]
	S: ali [bay]
	T: okay, listen, listen, alibi
Research project	Teachers are asked to work in groups to plan a small action research project for investigating an aspect of CF of their own choice. They are encouraged to reflect on their own practice as well as researching the literature on CF in order to identify an aspect to investigate.
Evaluation	The teachers complete the questionnaire a second time. The questionnaires are collected, and teachers' responses are compared with their initial responses. Initial and final questionnaires are shown for the purpose of examining whether and how their beliefs about CF have changed. Finally, they are asked to identify any issues about CF about which they remain uncertain or would like to learn more.

is of demonstrable relevance to them as evident in the fact that corrective feedback figures as a topic in just about every published teachers' guide. Also surveys of teachers' beliefs about teaching have shown that teachers typically hold strong beliefs that corrective feedback is necessary (see, for example, Schulz, 2001).

Principle 3 states that the topics covered in an SLA course should consist of "ideas" rather than "models". This is addressed by presenting the teachers with a set of guidelines consisting of statements regarding how CF might be conducted (see Ellis, 2009). These guidelines are based on SLA research and are presented to the teachers for discussion. No attempt is made in the unit to expose teachers to the different theoretical positions regarding the role of CF in SLA as I do not see these as helpful to teachers who need to make practical decisions regarding CF. However, the "ideas" themselves reflect certain theoretical positions.

The text chosen is Lightbown and Spada (2006)—a text on SLA written specially for teachers. It assumes limited technical knowledge and what technical knowledge is required is explicitly presented in an accessible form (Principle 4).

The research articles on CF were chosen with Cook's six requirements in mind (Principle 5). The article by Sheen (2004) is quite technical but it raises the crucial issue about the importance of instructional setting in determining how CF is conducted and invites teachers to consider why CF varies in the ways it does. It also introduces a key technical construct—"uptake"—that the teachers will probably have no knowledge of. The articles by Nobuyoshi and Ellis (1993) and Hopkins and Nettle (1994) are designed to introduce students to a debate about the applicability of ideas about CF drawn from SLA to actual teaching.

Throughout the unit proposals for implementing CF are presented as "provisional" (Principle 6). That is, no attempt is made to prescribe or proscribe

CF practices on the basis of research findings.

Principle 7 (presenting mini-lessons in a new language) was not incorporated into the unit. The reason was that such mini-lessons must necessarily position the teachers as beginner learners and, it can be argued that CF has a limited role to play in the very early stages of L2 acquisition.

The awareness-raising task the teachers were given (Principle 8) involved analysing some examples of CF episodes. The idea here was to give the teachers the opportunity to apply the technical constructs about CF they had acquired and also to reflect on the learning opportunities that can arise through CF.

Ideally, teachers need to undertake a study of CF in their own classrooms but clearly this is not possible for every topic covered in an SLA course. An alternative—the one adopted to address Principle 9—was to invite the teachers to collaboratively develop a proposal for an action research project involving CF. Whether the teachers subsequently carry out the research is left to them.

Finally, Principle 11, which addresses the need for teacher educators to evaluate their materials and practices, is reflected in the final questionnaire which the teachers are asked to complete. As McDonald et al. (2001) noted, it is reasonable to assume that "something useful" is coming out of an SLA course if it can be shown that the course has some impact on teachers' beliefs.

Conclusion

An interesting debate about research and its pedagogical implications took place in TESOL Quarterly Vol. 41 (3). Han (2007), after reviewing a research article by Kim (2006) which included an implications section, mounted a general criticism of TQ articles on the grounds that they "ostentatiously link the research to practice" by means of an implications section. She noted that "in the domain of SLA not every topic ... is relevant to second language teaching, and the ones that are relevant may bear a direct or indirect, actual or potential, and above all complex relationship to teaching" (p. 391). Responding to Han's concerns, Chapelle (2007) pointed out that there is no such thing as a perfect research design so the limitations of a study should not be a reason for failing to propose implications for teaching. She argued that "if an author can state no implications for teaching and learning, TESOL Quarterly is the wrong journal" (p. 405). This debate points to the uncertainty regarding the legitimacy of basing pedagogical recommendations on research, which has marked the field of SLA since its inception (see, for example, Hatch's (1978) article entitled "Apply with Caution").

To my mind there is no danger in researchers proposing implications of their research as long as these are not presented as prescriptions for practice but rather as "ideas" that teachers can experiment with in their own classrooms. The danger, of course, is that the authority attributed to research may lead to a false positivism—researchers find what works and then teachers implement what the researchers tell them to. Implications, applications, and proposals are all fine providing that researchers acknowledge that it is ultimately the teacher who must determine the relevance of SLA constructs and findings for teaching.

There is, however, the gap between the discourse of research and the practice of teaching. This gap can be filled in two principal ways. One way is through applied rather than pure research. My perspective has been that of an applied SLA researcher who seeks to make SLA applicable to pedagogy by addressing issues that are of acknowledged relevance to the practice of teaching—such as corrective feedback. The second way is through the mediation of teacher educators, whose job is to facilitate the process by which technical knowledge about SLA can interface with teachers' own practical knowledge of teaching. Mediation, however, has to be principled. In an attempt to show how this can be achieved I have proposed a number of principles that can guide the use that teacher educators make of research.

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References

- Aljaafreh, A., & Lantolf, J. (1994). Negative feedback as regulation and second language learning in the zone of proximal development. *The Modern Language Journal*, 78, 465-483.
- Allwright, R. (1975). Problems in the study of leanguage teacher's treatment of error. In M. Burt & H. Dulay (Eds.), On TESOL '75: New directions in second-language learning, teaching and bilingual education. Washington, D.C.: TESOL.
- Allwright, D. (2005). From teaching points to learning opportunities and beyond. *TESOL Quarterly*, 39, 9-31.
- Angelova, M. (2005). Using Bulgarian mini-lessons in an SLA course to improve the KAL of American ESL teachers. In N. Bartels (Ed.), *Applied linguistics and language teacher education: Vol. 4. Educational linguistics* (pp. 27-42). New York: Springer.
- Burt, M.K. (1975). Error analysis in the adult EFL classroom. TESOL Quarterly, 9(1), 53-63.
- Busch, D. (2010). Pre-service teacher beliefs about language learning: The second language acquisition course as an agent for change. *Language Teaching Research*, 14(3), 318-337.
- Chapelle, C. (2007). Pedagogical implications in TESOL Quarterly? Yes, please! TESOL Quarterly, 41(2), 404-406.
- Cook, V. (1999). Using SLA research in language teaching. International Journal of Applied Linguistics, 9, 267-284.
- Corder, S.P. (1967). The significance of learners' errors. *International Review of Applied Linguistics*, 5, 161-169.
- Crandall, J. (2000). Language teacher education. Annual Review of Applied Linguistics, 20, 34-55.
- Ellis, R. (1993). Second language acquisition and the structural syllabus. TESOL Quarterly, 27, 91-113.
- Ellis, R. (1994). Second language acquisition research and teacher development: The case of teachers' questions. In D. Li, D. Mahoney, & J. Richards (Eds.), *Exploring Second Language Teacher Development*. Hong Kong: City Polytechnic.
- Ellis, R. (2008). The study of second language acquisition (2nd ed.). Oxford: Oxford University Press.
- Ellis, R. (2009). Corrective feedback and teacher development. *L2 Journal*, 1(1), 3-18. Available from http://escholarship.org/uc/item/2504d6w3
- Ellis, R. (2010). Second language acquisition, teacher education and language pedagogy. *Language Teaching*, 43(2), 182-200.
- Erlam, R. (2008). What do you researchers know about language teaching? Bridging the gap between SLA research and language pedagogy. *Innovation in Language Learning and Teaching*, 2, 253-267.
- Freeman, D., & Johnson, K. (1998). Reconceptualizing the knowledge-base of language teacher education. TESOL Quarterly, 32, 397-417.
- Han, Z. (2002). A study of the impact of recasts on tense consistency in L2 output. *TESOL Quarterly*, 36, 543-572.
- Han, Z. (2007). Pedagogical implications: Genuine and pretentious. *TESOL Quarterly*, 41, 387-393. Harmer, J. (1983). *The practice of English language teaching*. London: Longman.
- Hatch, E. (1978). Apply with caution. Studies in Second Language Acquisition, 2, 123-143.
- Hendrickson, J. (1978). Error correction in foreign language teaching: Recent theory, research and practice. *Modern Language Journal*, 62, 387-398.
- Hopkins, D., & Nettle, M. (1994). Second language acquisition research: A response to Ellis. ELT Journal, 48, 157-161.
- Hyland, K., & Hyland, F. (2006). Feedback in second language writing: Contexts and issues. Cambridge: Cambridge University Press.
- Kim, Y. (2006). Effects of input elaboration on vocabulary acquisition through reading by Korean learners of English as a foreign language. *TESOL Quarterly*, 40, 341-373.
- Kramsch, C. (2000). Second language acquisition, applied linguistics, and the teaching of foreign languages. *Modern Language Journal*, 84, 311-326.
- Larsen-Freeman, D. (2000). Second language acquisition and applied linguistics. Annual Review of Applied Linguistics, 20, 165-181.
- Lightbown, P., & Spada, N. (2006). How languages are learned. Oxford: Oxford University Press.

- Lo, Y. (2005). Relevance of knowledge of second language acquisition: An in-depth case study of a non-native EFL teacher. In N. Bartels (Ed.), *Applied Linguistics and Language Teacher Education: Vol. 4. Educational linguistics* (pp. 135-158). New York: Springer.
- Long, M. (1996). The role of the linguistic environment in second language acquisition In W. Ritchie & T. Bhatia (Eds.), *Handbook of second language acquisition*. San Diego: Academic Press.
- Lyster, R. (2004). Differential effects of prompts and recasts in form-focused instruction. *Studies in Second Language Acquisition*, 26, 399-432.
- Lyster, R., & Ranta, L. (1997). Corrective feedback and learner uptake: Negotiation of form in communicative classrooms. *Studies in Second Language Acquisition*, 19, 37-66.
- Lyster, R., & Saito, K. (2010). Oral feedback in classroom SLA. Studies in Second Language Acquisition, 23(2), 265-302. doi: 10.1017/S0272263109990520
- McDonald, M., Badger, R., & White, G. (2001). Changing values: What use are theories of language learning and teaching? *Teaching and Teacher Education*, 17, 949-63.
- McDonough, K. (2006). Action research and the professional development of graduate teaching assistants. *Modern Language Journal*, 90, 33-47.
- Nobuyoshi, J., & Ellis, R. (1993). Focused communication tasks. ELT Journal, 47, 203-10.
- Pica, T. (1994). Questions from the language classroom: Research perspectives. TESOL Quarterly, 28, 49-79.
- Russell, J., & Spada, N. (2006). The effectiveness of corrective feedback for acquisition of L2 grammar: A meta-analysis of the research. In J. Norris & L. Ortega (Eds.), Synthesizing research on language learning (pp. 133-164). Amsterdam: John Benjamins.
- Schmidt, R. (1994). Deconstructing consciousness in search of useful definitions for applied linguistics. AILA Review 11, 11-26.
- Schulz, R. (2001). Cultural differences in student and teacher perceptions concerning the role of grammar instruction. *The Modern Language Journal*, 85, 244-258.
- Schwartz, B. (1993). On explicit and negative data effecting and affecting competence and linguistic behaviour. *Studies in Second Language Acquisition*, 15, 147-163.
- Sheen, Y. (2004). Corrective feedback and learner uptake in communicative classrooms across instructional settings. *Language Teaching Research*, 8, 263-300.
- Sheen, Y. (2006). Corrective feedback, individual differences and the acquisition of articles by second language learners. Unpublished PhD thesis, University of Nottingham.
- Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. Gass & C. Madden (Eds.), *Input in second language acquisition*. Rowley, Massachusetts: Newbury House.
- Ur, P. (1996). A course in language teaching. Cambridge: Cambridge University Press.
- Wallace, M. (1998). Action research for language teachers. Cambridge: Cambridge University Press.
- Widdowson, H. (1990). Aspects of language teaching. Oxford: Oxford University Press.
- Willis, J. (1996). A framework for task-based learning. Harlow: Longman.
- Wright, T. (1992). Classroom research and teacher education: Towards a collaborative approach. In J. Flowerdew, M. Brock, & S. Hsia (Eds.), *Perspectives on second language teacher education*. Hong Kong: Hong Kong City Polytechnic.