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Complexity in mentoring in a pre-service teacher practicum: a case study approach

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Abstract

Purpose – Significant effort has been made to support pre-service and novice teacher learning in the K-12 context. Less attention has been paid to promoting pre-service and novice second language teacher learning via collaboration with peers and more expert educators at the university level. In order to facilitate this type of teacher collaboration, a mentoring project was incorporated into the existing practicum of a Master of Arts in Teaching English as a Second Language (ESL) program at a US University. The purpose of this paper is to examine the nature of the mentoring experiences of four ESL mentor-pre-service teacher pairs in the US University context.

Design/methodology/approach – For this research project, eight teachers – four mentor-pre-service teacher pairs – participated as pairs in mentoring sessions focussed on activities such as co-planning, co-teaching, and co-reflecting on teaching. Informed by a sociocultural perspective on teacher learning (Vygotsky, 1978), this study presents case studies of all four pairs in order to demonstrate the complex nature of mentoring. The data analysis focussed on the content of the teachers' interactions and their perceptions of the mentoring experience.

Findings – The study traced the developmental trajectories of the participating teachers over one 15-week academic semester. The study uncovered some critical contradictions that the participants encountered during the mentoring experience, thus pointing to its complexity. The study also uncovered the varied nature of mentoring: whereas in one pair the mentor acted as a more expert other (Vygotsky, 1978), in another pair, the mentoring relationship was more reciprocal.

Practical implications – This study showed that pre-service teachers can develop further through mentoring. Such mentoring can help teachers gain confidence and share teaching strategies. At the same time, the study revealed certain challenges associated with introducing a mentoring project in a pre-service teacher practicum. It is recommended that program faculty as a whole read the rich dialogues produced by participating teachers engaged in relationships focussed on collaborative learning, thereby discovering a foundation for revisions that go beyond individual teaching practices to the programmatic level.

Originality/value – This study's principal contribution to the field is that it showcases the complex nature of mentoring experiences and the ways in which they differ from each other.

Keywords Mentoring, ESL, Higher education, Pre-service teacher education,
Learning and development, International and intercultural education, Teaching practicum

Paper type Case study

Introduction

Drawing on a perspective of teacher learning as a collaborative, inquiry-based, and developmental process, an emergent body of studies in the K-12 context (Bullough *et al.*, 2003; Roth and Tobin, 2004; Tobin, 2006; Tobin and Roth, 2005) focusses on how collaboration between peer teachers or among a group of co-teachers and several students in a class affects pre-service teachers' experiences in the practicum context. A traditional mentoring model involves a single mentor working with a single

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pre-service teacher (Malderez, 2009). Historically, teacher mentoring, which stems from a model of clinical supervision in the context of general teacher education as proposed by Goldhammer (1969) and Cogan (1973), focusses on the growth-oriented rather than the evaluative component of teacher supervision. Moreover, a number of research studies on teacher mentoring clearly show that a mentor (a more expert teacher) can play an important role in the development of a pre-service teacher's instructional expertise during a field-based practicum (Feiman-Nemser, 2001; Golombek, 2011; Guyton and McIntyre, 1990).

In addition, there is a line of research that focusses on more collaborative approaches to pre-service and novice teacher mentoring. For example, proponents of the co-teaching model of teacher mentoring emphasize the collaborative nature of mentoring (Roth and Tobin, 2004; Tobin and Roth, 2005; Tobin, 2006). By engaging novice teachers with a number of more experienced co-teachers in the activities of co-planning and co-teaching, this model is one in which all the co-teachers share responsibility for student learning (Roth and Tobin, 2004; Tobin, 2006). The novice, a number of more experienced colleagues, and several students from the class participate in after-class dialogues. During these dialogues, all the participants refer to direct evidence from the previous class in the form of videos and student work and co-generate possible solutions to the various instructional problems identified (Tobin, 2006). Through the implementation of the co-teaching model, not only the novice and a number of more experienced colleagues can contribute to each other's expertise, but also the participating students are given opportunities to help create a more effective learning environment by sharing their perspectives on what happened in the classroom.

Research on collaborative teaching practices has mainly focussed on the K-12 context (Bullough *et al.*, 2003; Honigsfeld and Dove, 2010, 2012; Roth and Tobin, 2004; Tobin, 2006; Tobin and Roth, 2005). Less attention has been paid to collaboration among English as a Second Language (ESL) pre-service teachers at the university level (Dang, 2013; Golombek, 2011; Johnson and Golombek, 2013). In the ESL context (the USA), Golombek (2011) and Johnson and Golombek (2013) demonstrated that a teacher educator can be effective in promoting a pre-service teacher's learning to teach in two key ways: the teacher educator can adjust his/her mediation to the pre-service teacher's developmental level and help the pre-service teacher to move beyond an overly emotional response to teaching by shifting the latter's attention to determining how best to support student learning. In the English as a Foreign Language context (Vietnam), Dang (2013) reported the differences between the respective developmental paths of two pre-service teachers in a language teaching practicum, thereby highlighting the idiosyncratic character of learning to teach.

The study takes a sociocultural perspective (Vygotsky, 1978) on teacher learning, where teachers learn to teach by engaging in the concrete activities and contexts of teaching. Vygotsky (1978) insisted that students (in this case, pre-service teachers) learn through engaging in learning tasks, and he was especially aware of the role of symbolic mediation such as language in facilitating learners' appropriation of existing cultural knowledge. In all the principal mentoring activities such as, for example, learning conversations with a mentor, symbolic mediational means such as language play a major role. Yet, the process of learning is not a straightforward process of appropriation of knowledge and skills from outside in. Vygotsky (1978) characterized the process of human development as uneven, complex, and dynamic. In other words, it is through the process of articulating and attempting to resolve perceived contradictions between one's beliefs and practices that development occurs (Roth and Tobin, 2002).

The primary purpose of this study was to examine the nature of mentoring in a pre-service second language teacher practicum in the university context. The study involved four mentor-pre-service teacher pairs engaged in the mentoring relationship at a large northeastern US University. The study was guided by the following research question:

RQ1. How did the mentoring sessions mediate the relationship of learning in the context of the mentoring experience?

The principal contribution of this study to the field is that it showcases the complexity and the varied nature of mentoring through the lens of the sociocultural theory (Vygotsky, 1978).

Next, an overview of the literature on mentoring in the context of teacher education is presented. This is followed by a presentation of the theoretical framework and background of the study, an overview of the method, the procedural details of the project, and a report of the findings. The study ends with a discussion and a conclusion.

Literature review

In educational research, mentoring is defined as a process that is "supportive of the transformation or development of the mentee and of his/her acceptance into a professional community" of educators (Malderez, 2009, p. 260). Recently, the assumption that mentoring is necessarily unidirectional (i.e. all the learning occurs on the mentee's part) in nature has been challenged and the possibility of a reciprocal relationship in which the mentor and the novice contribute to each other's professional expertise has been proposed (Grove *et al.*, 2006; Wink and Putney, 2002). Wink and Putney (2002) explained the concept of reciprocal mentoring as the idea that "the more experienced or capable other can alternate depending on the situations and setting" (p. 161). In such a conception, through mentoring, novices can start to re-conceptualize teaching in light of the particular classroom context (Orland-Barak, 2001), while mentors can reflect on and modify their own conceptions of teaching.

On the other hand, some studies have uncovered certain challenges associated with mentoring. For instance, Clarke (2006) found that mentors tended not to connect their own insufficient guidance to pre-service teachers' unsuccessful experiences in the classroom and lacked a sense of responsibility for the pre-service teachers' learning. Further, Clarke (2006) concluded that the participating mentors' feedback was not always explicit enough for the pre-service teachers. In addition, the mentors lacked knowledge regarding the pre-service teachers' backgrounds and poor subject knowledge, which prevented the latter from connecting with students (Clarke, 2006). Stanulis and Russell (2000) examined the nature of the relationship between the members of each of two mentor – novice teacher pairs during a school-based teaching practicum. The researchers found that both the mentors and the novices considered trust and communication as the major factors of a successful mentoring relationship. In regard to trust, the researchers reported that the relationship between the members of one of the participating pairs was not one characterized by trust, which hindered the mentee's growth as a teacher. Lastly, Hobson and Malderez (2013) found that among other obstacles, the practice of judgmental mentoring ("judgmentoring") contributed to less than satisfactory mentoring experiences in the UK school-based mentoring context. By judgmental mentoring, Hobson and Malderez (2013) mean "revealing too readily and/or too often their [mentors'] own judgments on or evaluations of mentees' planning and/or teaching" (p. 6). Such findings clearly indicate the need for more rigorous mentor preparation and selection.

Overall, the literature suggests that engagement in the mentoring relationship can benefit both the mentor and the novice. However, a number of research studies focus on challenging the view of mentoring as an uncontested good to show both its limitations and the complex ways in which mentors and teachers learn.

Theoretical framework

The present study proceeds from a sociocultural perspective of teacher development (Vygotsky, 1978) according to which teacher cognition originates in and develops from the concrete activities and contexts of teaching (Johnson, 2009). Teachers' engagement in the activities and contexts of teaching is mediated by various means, among which language and social interaction play a major role. For Vygotsky (1981), social relations "genetically underlie all higher functions and their relationships" (p. 163). In all mentoring relationships, activities, interactions, and engagement in the practices of teaching play a major role.

Mentoring relationships generally begin from the premise that compared to the novice the mentor has more knowledge of the educational context in which mentoring is taking place. Yet, depending on the nature of the teaching task in which the participating teachers are engaged, it is possible for the novice to be the more knowledgeable party (Vygotsky, 1978). For example, in the ESL context, native-speaking ESL teachers may find it difficult to explain points of grammar explicitly (Kanno and Stuart, 2011), whereas their non-native-speaking counterparts who learned grammar in an explicit way may be proficient instructors in this regard.

Within a sociocultural framework, another important concept is what Vygotsky (1978) referred to as the zone of proximal development (ZPD): "the difference between what a person can achieve when acting alone and what the same person can accomplish when acting with support from someone else and/or cultural artifacts" (Lantolf, 2000, p. 17). The ZPD addresses the learner's maturing abilities by distinguishing between the learner's actual development, i.e., his/her independent performance on a certain task, and his/her potential to develop, which can be revealed in learner-teacher collaboration over the task. From a sociocultural theoretical perspective, mediation is best carried out within the learner's ZPD. Therefore, it is crucial for mentor teachers to first determine the novice's ZPD and deliver their mediation within it. In the context of second language education, Golombek (2011) demonstrated how upon seeing a pre-service teacher's unresponsiveness to a teacher educator's prompts during a post-lesson reflection session, the teacher educator was able to adapt her mediational strategies accordingly. She shifted from an implicit to a more explicit level of mediation during the same session.

Overall, Vygotskyan sociocultural theory can serve as a useful theoretical lens, through which it is possible to see the developmental trajectories of participating teachers.

Background to the study

The mentoring project was incorporated into the existing practicum of an MA TESL program at a large northeastern US University. Eight people participated in the study: four pre-service teachers (Amber, Sergey, Bristol, and Madhu[1]) enrolled in the practicum and their mentors. Two of the mentors (Konstantin and Aidan) were doctoral students in the university's applied linguistics program teaching an academic writing course for incoming international first-year college students, and two (Samantha and Lisa) were full-time ESL instructors for the university's intensive English program.

The participants differed greatly in regard to the nature and the extent of their experiences and their level of expertise in ESL teaching and mentoring. It was important that the sample be diverse because one of the study goals was to capture the diverse character of learning to teach during a mentored teaching practicum. Amber and Bristol had practically no teaching experience, whereas Sergey had 19 years' teaching experience in the context of adult education to draw on. Similarly, Lisa, Aidan, and Konstantin were fairly new to mentoring, in contrast with Samantha, who had mentored over 20 pre-service teachers. Other distinctive factors included the participants' respective cultural and educational backgrounds: Konstantin, Lisa, and Amber self-identified as non-native-speaking ESL instructors, whereas Samantha, Madhu, Bristol, Aidan, and Sergey spoke English as their first language.

All the teachers agreed to participate in the project and thereby to allow their classes and mentoring sessions to be video-recorded. In order to further clarify the analysis of the findings, the researcher also involved the participating teachers in a series of post-session interviews and several e-mail exchanges. Throughout the project, each mentoring session was followed by an interview with both participants in which the researcher asked them to share their perspectives on the session (sample interview questions are presented in Appendix 1). In addition, a series of subsequent e-mail exchanges with the participants served as a member check (Lincoln and Guba, 1985; Maxwell, 2004) and was integrated into the data analysis. In this context, member checking involved collaborative and co-constructed interpretation of the mentoring sessions and interviews with the participants. The collaborative approach strengthens the validity of the final analysis.

The data collected were drawn from a video of a lesson co-taught by each mentor and pre-service teacher; the two ESL lessons that each pre-service teacher taught independently as a requirement of the practicum; mentoring sessions; the audio-recordings of the researcher's post-session interviews with each of the participants; and e-mail correspondence between the researcher and each of the participants.

Mode of inquiry

The goal of qualitative research is to "understand the nature or the meaning of the experience" of research participants (Strauss and Corbin, 1998, p. 11) and "to offer insight, enhance understanding, and provide a meaningful guide for action" (Strauss and Corbin, 1998, p. 12). Crucial to the qualitative research is valuing participants' own making sense of their respective experiences.

Using commonly accepted qualitative methodology for case studies (Patton, 2001; Stake, 1995; Yin, 2009), the researcher analyzed the transcripts of the mentoring sessions and ESL lessons in order to identify themes and recurrent concepts based on which the mentors' and pre-service teachers' professional development could be traced. The data analysis proceeded in two stages. During the course of the project, the researcher wrote interpretive memos about the nature of the topics discussed by the participants. These memos initially corresponded to the two a priori themes identified in the literature on mentoring and ESL, which provided the initial guiding framework. One of these themes is the varied nature of mentoring: for example, in one pair the relationship was unidirectional (i.e. the mentor acted as a more expert other), whereas in another, it was reciprocal in nature (i.e. each member acted as a more expert other some of the time) (Grove *et al.*, 2006; Wink and Putney, 2002). The other theme concerns native-speaking ESL teachers' difficulty in regard to explaining English grammar explicitly (Kanno and Stuart, 2011). The memos also guided future readings. The second

stage of analysis occurred at the end of the project when all the data were collected and a detailed content analysis was carried out. The researcher read the transcripts multiple times. Recurrent concepts and themes were identified through the researcher's reading process. Each transcript was divided into topics, coded, and sorted into themes, some of which emerged from the content analysis and were added to the initial themes. Two additional themes that emerged from the data relate to the non-native ESL teachers' insecurity in regard to mentoring a native English-speaking ESL teacher and certain contradictions that the participants encountered during mentoring.

Yet, as in most investigations, the method chosen had limitations (Bryant and Charmaz, 2006). For example, the effect of the researcher's own social and physical role in the study should be accounted for. During her doctoral studies, she had been a colleague of both Konstantin and Aidan. In fact, she, Konstantin, and Aidan had all taught classes in the same writing program. Thus, she had a deeper understanding of Konstantin's and Aidan's respective situations than of either Lisa's or Samantha's (the latter taught at the university's intensive English program). It can be argued that the researcher could not have refrained from imposing personal and societal expectations as she analyzed the participants' words and behaviors during the practicum. However, the similarity between the researcher's background and those of Konstantin and Aidan (i.e. colleagues in the same writing program) only meant that as compared to the respective experiences of the other mentor-pre-service teacher pairs (Lisa – Madhu, Samantha – Amber) she had a greater understanding of their experiences and could, therefore, offer a fuller and more valuable account of these than of the other participants' experiences.

Process

The mentoring project engaged the participants in a series of mentoring sessions. For instance, the first session (orientation to the course) required the mentor to introduce the pre-service teacher to the instructional context and to describe the teaching materials and the students' backgrounds. As the semester progressed, all the participants engaged in the practices of co-planning, co-teaching, and co-reflecting on teaching; examined samples of student work; and co-reflected on the course in its entirety at the end of the practicum. Table I summarizes the mentoring sessions incorporated into the practicum.

As part of the mentoring project, explicit protocols for mentoring were provided to all the participants to facilitate their planning activities and reflections on teaching. The protocols were constructed by drawing on literature focussed on mentoring in the

Month	Session title and description
January 2012	Pre-semester interviews
February and March 2012	Orientation to the course
	Mentor and pre-service teacher background session
	Cycle I: Co-Plan, Co-Teach, and Co-Reflect
April 2012	Cycle II: Solo Plan 1, Solo Teach 1, and Co-Reflect
	Looking together at student work
	Cycle III: Solo Plan 2, Solo Teach 2, and Co-Reflect
	Final co-reflection on the course
	Post-semester interviews

Table I.
Mentoring sessions' timeline

context of general and second language teacher education (Blythe *et al.*, 1999; Graves, 2000). By answering the questions in the protocols, the teachers were prompted to engage in a deeper and more structured discussion of teaching (a sample protocol is presented in Appendix 2).

Findings

The main findings identified in the data are: first, revealing the varied nature of mentoring: in one pair the mentor acted as a more expert other (Vygotsky, 1978), whereas in another pair, the of mentoring was reciprocal in nature; second, uncovering contradictions the participants encountered during mentoring: the study highlights the complexity of mentoring; third, exploring native English-speaking ESL teacher's difficulty with teaching English grammar explicitly: the study confirms the findings of previous research (Kanno and Stuart, 2011); and fourth, uncovering the non-native English-speaking mentor's initial insecurity associated with mentoring a native English-speaking mentee: the study explores an issue not previously discussed in the literature on mentoring.

Revealing the varied nature of mentoring

This study highlights the varied nature of each mentoring experience: in one of the pairs, the relationship was reciprocal in nature (Wink and Putney, 2002), whereas in another pair, the mentor served as a more expert other (Vygotsky, 1978).

In the first pair (Lisa, the mentor, and Madhu, the pre-service teacher), the mentoring relationship resulted in learning benefits for both the participants. Whereas Madhu contributed to Lisa's classes by suggesting additional instructional ideas and materials, Lisa assisted Madhu in considering how to implement her instructional ideas.

During the first co-planning session, Madhu shared an instructional idea that she thought could be incorporated into the ESL grammar course – an idea for which Lisa expressed great appreciation. Madhu's instructional idea centered on teaching English grammar through the use of contemporary US songs. Not only did Lisa encourage Madhu to implement the new instructional idea in her ESL course, she also gave Madhu several practical tips for implementing this:

> Excerpt 1.
>
> Lisa (looks through the list of songs that Madhu had prepared): **This is good. I was thinking we should have the song that has both [present simple and present progressive tenses]. […] What you could also do is hmm space this out and make it like a listening exercise and see whether they can fill in** (1st co-planning session, 4.56-6.20, February 6, 2012).

As Excerpt 1 demonstrates, the mentor and the pre-service teacher each contributed to the other's expertise by sharing an instructional idea (Madhu) and the strategies to implement it (Lisa).

In contrast, in another pair (Aidan, the mentor, and Bristol, the pre-service teacher), the mentor served as an expert other mediating the novice's development (Vygotsky, 1978). One of the mediational strategies used by the mentor in this context was that of guiding the novice toward situating her instructional activities[2]. The excerpt below shows how Bristol introduced a textbook activity at the beginning of the practicum:

> Excerpt 2.
>
> Bristol: So, I'd like you to take out your books, page 109, and I would like you to just read the page 109 (Bristol's 1st lesson, 20.00-20.02, March 2, 2012).

During a subsequent mentoring session, Aidan drew Bristol's attention to the directions that she had given to the students during this part of the lesson pointing to the importance of situating one's instructional activities:

Excerpt 3.

Aidan: What do you notice about how you introduced it?

Bristol: Page 109 and I don't know why we are reading it, why-

Aidan: **Exactly. So, the information that you just presented is the location, it's 109 and just read it. So, think about it from the perspective of the students. What am I supposed to do with it? […] "I want you to read this," and then you might have said something like maybe, "Take some notes and what are the main points" […] And then, "The reason we are doing this is to get you familiar with whatever"** (1st co-reflection session, 6.00-7.50, March 6, 2012).

In her subsequent lesson, Bristol provided the students with a more elaborate set of directions for the activity she had assigned. Yet, she did not situate her instructional activity:

Excerpt 4.

Bristol: I would like you to get with a partner and decide whether you agree on each of these answers for exercise one. And then we'll go through exercise one, and then I'll give you a couple of minutes to go through exercise two. But for right now, please get with a partner, and get a couple of minutes discussing exercise one and see if you agree (Bristol's 2nd lesson, 23.00-23.50, April 2, 2012).

Given that Bristol did not fully incorporate Aidan's suggestion regarding situating her instructional activities, it can be argued that this concept was not within her ZPD. At the same time, during a subsequent co-reflection session, she expressed concern regarding how the students had experienced the class:

Excerpt 5.

Bristol: Did you think that when I did the exercise one, did you think it went okay?

Aidan: Yeah.

Bristol: **Because I saw some of them were still not catching up** (2nd co-reflection session, 6.00-6.08, April 3, 2012).

To conclude, the excerpts above demonstrate the varied nature of mentoring as experienced by its participants: in one of the pairs (Lisa – Madhu), the relationship was reciprocal (Wink and Putney, 2002), whereas in the other (Aidan – Bristol), it was unidirectional in nature.

Uncovering contradictions the participants encountered

Previous research suggests that co-teachers and their students can successfully negotiate their various approaches to teaching and learning (Roth and Tobin, 2002). And, even though the researcher agrees with Siry's (2011) point that there is not one right way to teach, the present study shows that mentors and pre-service teachers should be provided with opportunities to articulate and discuss their various perspectives on teaching. Yet, despite being provided with spaces in which to discuss teaching with the novices, the participating mentors did not always successfully handle their concerns.

The excerpt below shows an attempt by Amber (a pre-service teacher) to articulate her disagreement with the idea of teaching vocabulary from a required textbook containing a list of unrelated sentences with the new vocabulary items. The excerpt also shows Samantha (the mentor) disregarding or at least appearing to disregard Amber's view:

Excerpt 1.

Amber: **I don't know. Vocabulary? I guess [...] it was sort of new to me [...] because I never learned vocabulary explicitly, that way.**

Samantha: Uh-hm.

Amber: **I was just- keep trying to think of other ways you can teach vocabulary.**

(1st co-reflection session, 58.51-59.01, February 21, 2012)

In a subsequent post-session interview, Amber explained that the practice of teaching new vocabulary from a required textbook did not align with her teaching beliefs. Even at the end of her practicum experience, Amber was not sure which approach, Samantha's or her own, to teaching vocabulary was more effective:

Excerpt 2.

Amber: **Throughout the semester, well, I tried two different ways of teaching. One was going over the questions [Samantha's approach to teaching vocabulary], and the other one was like PowerPoint [Amber's approach to teaching vocabulary].** But I wish that I knew what they [the students] thought about [it] (Amber's post-semester interview, April 27, 2012).

Samantha had modeled her own instructional practices (teaching new vocabulary from textbook examples) for Amber and prompted her to try alternative modes of classroom teaching (using a PowerPoint presentation). Yet, even at the end of the practicum, Amber had not determined which constituted the more effective method of teaching vocabulary – or whether using both methods might be most effective.

Thus, the mentoring sessions afforded opportunities for the participants to discuss teaching to a certain extent and, on the basis of the dialogues, it was also possible to identify some of the pre-service teachers' beliefs that remained in conflict with those of their mentors. Excerpt 3 from a session of the second pair illustrates this point.

By sharing his own views on grading ESL students' written work, Konstantin (the mentor) attempts to address Sergey's (his mentee's) recurrent concern regarding grading:

Excerpt 3.

Sergey [reads from the protocol]: And, I also wondered about grading. How do you grade them? Do you grade them based on what a native American speaker does or ah-?

Konstantin: **I basically follow the rubric I have in the syllabus.** So, there are four or five main categories. So content, the ideas ah- content, organization [...] and so coherence and cohesion, that's another. And the last thing is form (Orientation to the course, 07.46-10.30, January 17, 2012).

In Excerpt 3, Sergey frames his question about grading in terms of how non-native students' written work compares to that of native English students. However, Konstantin makes no attempt to directly address Sergey's question as to whether non-native students' writing should be evaluated based on native-speaker norms. In fact, this concern remained with Sergey throughout the practicum and seems to have been at the root of his inability to develop a clear sense of how to grade ESL students' essays fairly.

The data suggests that, in part, Sergey's discomfort with grading is related to his lack of understanding of how harshly he should evaluate ESL students' written work and how closely ESL students' writing should resemble native-speaker norms. Unfortunately, his mentor did not directly address these issues. From a sociocultural theory perspective, internal contradictions represent a locus for development (Lantolf and Thorne, 2006; Roth and Tobin, 2002). However, Sergey did not receive sufficient support on this point. As the practicum experience unfolded, Sergey again returned to his persistent concern over grading. Even by the end of the teaching practicum, Sergey stated that he was still "up in the air" (in his own words) in regard to how to grade ESL students' essays.

According to a sociocultural perspective, contradictions constitute an integral part of a developmental process, and it is through attempts to attend to and resolve these contradictions that development occurs (Lantolf and Thorne, 2006). It is possible that efforts on the part of the mentors to address the mentees' concerns directly would have helped the latter find ways to resolve areas of difficulty. For example, Samantha might have been more effective in her role as mentor had she directly addressed Amber's lack of understanding in regard to determining the more effective way to explain new vocabulary.

Overall, the mentoring sessions allowed both the mentors and the pre-service teachers to co-reflect on their shared experiences in the classroom. However, in both pairs above, the pre-service teachers externalized some opinions on teaching that differed from those held by their mentors who did not fully address these differences – at least not during the practicum experience.

Exploring native English-speaking ESL teacher's difficulty with teaching grammar

As the practicum progressed, Madhu (a pre-service teacher), in common with many native English-speaking ESL instructors, experienced a strong negative emotional reaction to the requirement that she teach English grammar explicitly. To address this concern, Lisa offered Madhu guidance on ways to explain English grammar (specifically, a unit on adjectival clauses) explicitly in her course.

Seeing Madhu's lack of confidence in regard to teaching the grammar unit on adjectival clauses, Lisa offered her both critical professional and emotional support. In Excerpt 1 below, Lisa first gives Madhu explicit suggestions regarding teaching the grammar unit and then explores the textbook examples with her. In addition, Lisa supports Madhu emotionally by explaining that this unit might be more difficult for native speakers to teach than for non-native speakers:

> Excerpt 1.
>
> Lisa: **Yes, but you would need to stay here longer. They may not get it all at once. […] But then the key is […] don't go too fast. […] "The police officer was friendly. She gave me directions."**
>
> Madhu: So, the police officer who was- oh wait [re-reads the sentences from the textbook]. So, the police officer who gave me directions was friendly.
>
> Lisa: Right. **I think this is harder for native speakers to teach because you guys use it just so naturally-.** But for me, I need to think about it, too, so I know, I know the rules (3rd co-planning session, 4.12-7.55, April 7, 2012).

Another important point in relation to Madhu's grammar lesson was her creation and use of a cheat sheet to support her teaching. In an e-mail exchange with the researcher (October 11, 2012), Madhu explained that in creating the cheat sheet she had drawn on her own experiences as a learner, i.e., preparing for this class by reviewing the textbook grammar

explanations and completing the exercises herself. She was then able to use this tool in order to regulate her teaching activity during the lesson. Madhu's cheat sheet turned out to be a useful instructional artifact that her mentor both appreciated and proposed to use in a subsequent class. In addition, during the same session, Lisa recognized the value of Madhu's instructional tool by sharing her own previous experience teaching the same grammatical point to her students. Lisa noted that when she taught this particular lesson in the past, both she and the students found it challenging and even confusing.

Overall, the mentoring sessions created a space wherein the pre-service teacher was able to elicit mentor's guidance regarding teaching English grammar explicitly and wherein the mentor was able to provide both critical professional and emotional support to the novice.

Uncovering the non-native English-speaking mentor's initial insecurity associated with mentoring a native English-speaking mentee

The mentoring project was not without challenges. For example, in one of the pairs, Lisa, the mentor, was initially apprehensive about mentoring a native English-speaking pre-service teacher (Madhu). However, her apprehension disappeared as the mentoring relationship developed:

> Excerpt 1.
>
> Lisa: **Yes, I was at first […] like uncomfortable.** Like why? Why you give me a native speaker as a mentee? […] Yes, but then when we got to know each other, it was better (Final co-reflection on the course, 5.05-6.20, April 23, 2012).

Interestingly, the pre-service teacher (Madhu) was not aware of her mentor's apprehensive feelings during the initial period of the practicum, as Excerpt 2 shows:

> Excerpt 2.
>
> Madhu: **And I did not even know. […] I would never have guessed** (Final co-reflection on the course, 7.00-7.03, April 23, 2012).

In addition, Lisa proposed that in training non-native English-speaking teachers to become mentors, it would be useful to equip them with strategies for negotiating any feelings of insecurity that they might experience in relation to mentoring native English-speaking teachers. These findings point to the additional support necessary for non-native English-speaking mentors mentoring native English-speaking novices.

Summary of results

Overall, the mentoring sessions mediated the relationship of learning in the context of the mentoring experience. Yet, the extent to which that occurred depended a great deal on the ability of each party to engage in a dialogue wherein ideas from the field, the classroom, and the participating teachers (both the mentors and mentees) not only coexisted but created a synergy whereby each party developed professionally. In two of the four pairs, the mentees were not able to resolve certain contradictions they experienced during the course of their mentoring experience. Perhaps, the mentors' more direct involvement with the mentees' thinking about teaching could have led the latter to find ways to resolve the contradictions they reported on.

Discussion

As noted earlier, the purpose of this study was to examine the nature of the mentoring experiences of four ESL teacher pairs in a US University. The study uncovered the varied

and complex nature of the mentoring experience. In addition, the extent to which learning occurred in the four participating pairs was determined by the ability of each party to engage in a dialogue that simultaneously enabled a synthesis of ideas and an interrogation of different perspectives on teaching and learning in a second language classroom.

In terms of teacher development, it was important for each mentor and mentee to benefit from the other's expertise. For example, in the case of Madhu and Lisa, we witnessed what is known as reciprocal mentoring (Grove *et al.*, 2006; Wink and Putney, 2002), wherein both the mentor and the mentee contributed to each other's professional expertise. In this study, Lisa was the more capable other (Lantolf and Thorne, 2006) who mentored Madhu on teaching a grammar unit, whereas Madhu was the more capable other inasmuch as she suggested additional class activities and materials to Lisa. At the same time, the study revealed the varied nature of the mentoring experience: in another pair (Bristol and Aidan), the mentor served as a more expert other mediating the novice's ZPD (Vygotsky, 1978). In other words, the relationship was unidirectional in nature.

As native English-speaking ESL teachers generally tend to find it difficult to explain English grammar explicitly (Kanno and Stuart, 2011), and a collaboration with a non-native colleague may be especially useful in that regard. Similarly, non-native teachers can benefit from the input of native counterparts. In addition, collaboration among teachers can lead to the creation and exchange of instructional tools (e.g. Madhu's cheat sheet) that can further contribute to student learning. Similar findings related to the inability of native-speaking instructors to explain English grammar explicitly have been reported elsewhere (e.g. Kanno and Stuart, 2011), such that it is evident that this aspect of teaching often presents a major challenge to novice native English-speaking instructors and, therefore, requires greater attention on the part of teacher educators.

Among the other findings was the non-native mentor's initial apprehensiveness over mentoring a native English-speaking teacher (Lisa – Madhu). This is an important finding that has not been discussed in the mentoring literature previously. Its importance lies in the fact that native English-speaking instructors and teacher educators are likely to find it difficult to imagine the experience of teaching in a second language in a country where that language is spoken, and this paper throws some initial light on this issue. Yet, in the present study, as the mentoring relationship developed, the non-native mentor was able to cope with her initial misgivings. This outcome was probably due to the relatively extended period of this mentoring project (one academic semester), during which there was considerable time for a relationship to develop.

According to the proponents of sociocultural theory, teachers' internal contradictions represent areas for professional growth (Roth and Tobin, 2004). This is because a perceived contradiction between a teacher's beliefs and practices, i.e., emotional dissonance (Golombek and Johnson, 2004), can drive teachers to re-examine their teaching beliefs and practices, search for alternative modes of engagement in the classroom, and finally embrace and implement alternative views and practices in their own teaching. However, in the present study, it was found that the mentors did not always effectively address the pre-service teachers' contradictions.

The reasons for the mentors' inability to effectively address the pre-service teachers' concerns varied: Konstantin had not been explicit with regards to whether or not to evaluate non-native speakers' writing based on native-speaker norms, whereas Samantha did not see anything problematic in her own strategies for teaching vocabulary. Due to the mentors' inability to resolve the pre-service teachers' contradictions, it became evident that teaching experience alone does not necessarily translate to pre-service teachers' professional growth. In addition to their engagement in teaching, pre-service teachers need

opportunities to fully articulate their teaching beliefs and understand the rationale behind accepted teaching practices. In addition, both professional and emotional support provided by teacher educators (in this case, the mentors) is crucial in helping the novices articulate and endeavor to resolve their emergent contradictions.

In considering the role of the mentoring sessions in this study, we were afforded a vantage point on teacher learning as it actually unfolded during one-on-one mentor-mentee interactions and collaborative teaching in second language classrooms. In particular, when the pre-service teachers externalized their thoughts and feelings about teaching, they also became open to "dialogic mediation that can promote reorganization and refinement" (Johnson, 2009, p. 66). For example, as Madhu struggled with translating her theoretical knowledge of English grammar into pedagogical content knowledge (Shulman, 1986), Lisa offered critical mediation. Kagan (1992) reported similar observations on the nature of pre-service teachers' experiences during a practicum wherein the pre-service teachers often reported experiencing a disconnect between their theoretical coursework and their experiences in the classroom during the practicum. However, whereas Kagan (1992) predominantly relied on the pre-service teachers' perceptions and feelings in regard to the practicum experience, this study revealed the nature of the disconnect between theory and practice (Madhu's example) and illustrated how crucial the role of the mentor teacher is in that respect. Research by Smagorinsky *et al.* (2003) likewise suggests that teachers do not fully internalize the concepts taught in teacher education programs and that although teachers comprehend these concepts, the extent to which they do so is undermined by their experience in the institutions where they teach. Therefore, Smagorinsky *et al.* (2003) emphasize the importance of ensuring that pre-service teachers fully internalize concepts during teacher education programs. Further, they state that this can be achieved by connecting the content knowledge to which pre-service teachers are exposed to the actual activities of teaching.

Theoretical courses are often front-loaded in teacher education programs. And, it is in the context of the teaching practicum that pre-service teachers must start to make sense of their theoretical knowledge and translate it into pedagogical content knowledge (Shulman, 1986) that their students can understand. Similar claims were made in more recent research studies on second language teacher education (Johnson and Arshavskaya, 2011; Johnson and Kuerten Dellagnelo, 2013), which showed that even though novices often lacked the conceptual knowledge related to teaching second language writing, a more expert educator mediated these novices toward a greater understanding of the material they were expected to master. On this point, the mentoring sessions included in the design of the present study offered insight into how a pre-service teacher made sense of theoretical knowledge (English grammar) to which she had previously been exposed in a grammar course. The sessions also show the importance of the mentor's assistance in helping the novice prepare and teach a unit on this content.

Implications for teacher education practice and theory

The study findings have important implications for teacher educators and researchers in the field. A key area to address pertains to the appropriate preparation and selection of mentors. For example, non-native English-speaking mentors might be more thoroughly prepared to mentor native English-speaking teachers by, for example, participating in face-to-face or virtual discussions with other mentors facing similar issues. In this way, mentors of native English-speaking teachers might be able to discuss the psychological challenges they encounter as well as strategies to overcome them.

In addition, in the present study, it was found that the mentors did not always effectively address the pre-service teachers' internal contradictions. This finding also has important implications for teacher educators. It is evident that the resources for mentoring activities (i.e. the mentoring protocols developed for the purposes of this study) though useful may not have been sufficient to support mentoring practices. Attention, therefore, should be paid to how mentors conceptualize mentoring process as well as to whether both mentors and pre-service teachers have opportunities to articulate and negotiate their views on various aspects of teaching in the context of mentoring.

Lastly, the mentoring sessions in this study afforded access to teacher learning as it actually occurred. Further, the sessions showed that this (i.e. teacher learning) can be achieved by connecting content knowledge to which pre-service teachers are exposed to the actual activities of teaching (e.g. actual teaching in the classroom). The practicum context appears to be the key space in which pre-service teachers must start to make sense of their theoretical knowledge and translate it into pedagogical content knowledge (Shulman, 1986) that their students can comprehend. Therefore, it is important that mentors provide adequate support to novices in this context.

Conclusion

Overall, this study provides initial insights into the gains that can be realized from incorporating a collaborative mentoring relationship into an existing teacher education program. However, clearly, generalizations about ESL teacher mentoring cannot be made based on this research due to the limited sample (eight participants). Although the mentoring project had limitations, it contributed to the development of all the teachers in the study. Additionally, the researcher gained insights into the potential challenges of collaborative relationships between ESL instructors.

As noted, previous research reported how pre-service teachers' inner contradictions can be resolved via dialogues with more expert others and with students (Roth and Tobin, 2004). Yet, in the present study, mentoring did not lead to the resolution of the pre-service teachers' contradictions. Recognizing and attending to those unresolved concerns is important, as they have implications, with respect to how to prepare mentors to better work with novices. Further, the possible consequences of a teacher's decisions for student learning should be discussed among co-teachers. This observation is vital as it supports the importance of agency (Lantolf and Thorne, 2006) on the part of the pre-service teachers, who instead of simply replicating their mentors' practices prefer to draw on their own views on teaching and teaching-related issues. Furthermore, as Salles El Kadri and Roth (2013) have shown, novices are often resistant to the notion of incorporating new approaches to teaching. However, over time, such resistance can give way to a more positive attitude whereby a novice teacher comes to welcome his/her colleagues' suggestions in relation to teaching. It is possible that given more time, the pre-service teachers might have developed a better understanding of the issues at the root of their emotions (Amber, in particular) underlying their responses to the pedagogical issue at stake.

Given that teacher narratives have been found to stimulate participating teachers to engage in a process of critical reflection (Johnson and Golombek, 2002, 2011), the next step could entail engaging teachers in writing a narrative about their experiences during the mentoring project. Furthermore, should such narratives be published, it is likely that other teachers would offer related ideas.

To conclude, the study suggests that mentoring sessions can serve as an important mediational tool that fosters pre-service teachers' development and underscores the critical role of mentors in mediating novices' learning to teach. There are several

foundational arguments for including mentoring sessions in a practicum. One is that such sessions provide space wherein the mentoring relationship can develop and assistance can be explicitly asked for and offered. Further, such sessions position pre-service teachers and mentors in a relationship wherein different levels of expert knowledge can come together and, potentially, be taken up in an integrated way. Yet, the extent to which this actually happens depends on the ability of each party to engage in a dialogue that enables ideas from the field, classroom, mentor, and peers not only to coexist but to influence one another. At the same time, in the present study, the mentors did not know how to recognize or deal with complex, socially situated tensions (grading), or with a teaching philosophy (vocabulary instruction) that conflicted with their own. In other words, the mentors may have needed more than the resources provided in the present study to support them in working with novice teachers in ways that would lead to change rather than to mere transmission. Overall, the study suggests that training for the mentors should be re-visited, and the findings of this study could be used to strengthen mentor training, particularly in the ESL university context.

Notes

1. With their consent, the participants are referred to by pseudonyms in the present study.
2. The phrase "situating one's instructional activities" refers to explaining the goal, rationale, and outcomes of a particular instructional activity in which students engage during a class.

References

Arshavskaya, E. (2014a), "A re-designed MA TESL teacher practicum: the role of mentoring sessions for learning-to-teach", in Dominguez, N. and Gandert, Y. (Eds), *7th Annual Mentoring Conference Proceedings: Impact and Effectiveness of Developmental Relationships*, University of New Mexico, Albuquerque, pp. 843-850.

Arshavskaya, E. (2014b), "Introducing co-teaching and co-generative dialogues in a pre-service teaching practicum: stepping in and remaining contradictions", *World Journal of English Language*, Vol. 4 No. 3, pp. 44-57. doi: 10.5430/wjel.v4n3p44.

Blythe, T., Allen, D. and Powell, B.S. (1999), *Looking Together at Student Work: A Companion Guide to Assessing Student Learning*, Teachers College Press, New York, NY.

Bryant, A. and Charmaz, K. (Eds) (2006), *The SAGE Handbook of Grounded Theory*, Sage Publications, London.

Bullough, R.V., Young, J., Birrell, J.R., Clark, D.C., Egan, M.W. and Welling, M. (2003), "Teaching with a peer: a comparison of two models of student teaching", *Teaching and Teacher Education*, Vol. 19 No. 1, pp. 57-73.

Clarke, A. (2006), "The nature and substance of cooperating teacher reflection", *Teaching and Teacher Education: An International Journal of Research and Studies*, Vol. 22 No. 7, pp. 910-921.

Cogan, M. (1973), *Clinical Supervision*, Houghton Mifflin, Boston, MA.

Dang, T.K.A. (2013), "Identity in activity: examining teacher professional identity formation in the paired-placement of student teachers", *Teaching and Teacher Education*, Vol. 30, February, pp. 47-59.

Feiman-Nemser, S. (2001), "Helping novices learn to teach: lessons from an exemplary support teacher", *Journal of Teacher Education*, Vol. 52 No. 1, pp. 17-30.

Goldhammer, R. (1969), *Clinical Supervision: Special Techniques for the Supervision of Teachers*, Holt, Rinehart & Winston, New York, NY.

Golombek, P.R. (2011), "Dynamic assessment in teacher education: using dialogic video protocols to intervene in teacher thinking and activity", in Johnson, K.E. and Golombek, P.R. (Eds), *Research on Second Language Teacher Education: A Sociocultural Perspective on Professional Development*, Routledge, New York, NY, pp. 121-135.

Golombek, P.R. and Johnson, K.E. (2004), "Narrative inquiry as a mediational space: examining emotional and cognitive dissonance in second language teachers' development", *Teachers and Teaching: Theory and Practice*, Vol. 10 No. 3, pp. 307-327.

Graves, K. (2000), *Designing Language Courses: A Guide for Teachers*, Heinle, Boston, MA.

Grove, K., Odell, S. and Strudler, N. (2006), "Technology mentoring: a cooperating teacher and student-teacher case study", *Action in Teacher Education*, Vol. 28 No. 1, pp. 85-93.

Guyton, E. and McIntyre, D.J. (1990), "Student teaching and school experiences", in Houston, W.R., Haberman, M. and Sikula, J. (Eds), *Handbook of Research on Teacher Education*, Macmillan, New York, NY, pp. 514-534.

Hobson, A. and Malderez, A. (2013), "Judgementoring and other threats to realizing the potential of school-based mentoring in teacher education", *International Journal of Mentoring and Coaching in Education*, Vol. 2 No. 2, pp. 89-108.

Honigsfeld, A. and Dove, M. (2010), *Collaboration and Co-Teaching: Strategies for English Learners*, Corwin Press, Thousand Oaks, CA.

Honigsfeld, A. and Dove, M. (2012), *Co-Teaching and Other Collaborative Practices in the ESL/EFL Classroom: Rationale, Research, Reflections, and Recommendations*, IAP, Charlotte, NC.

Johnson, K.E. (1999), *Understanding Language Teaching: Reasoning in Action*, Heinle & Heinle, Boston, MA.

Johnson, K.E. (2009), *Second Language Teacher Education: A Sociocultural Perspective*, Routledge, New York, NY.

Johnson, K.E. and Arshavskaya, E. (2011), "Re-conceptualizing the micro-teaching simulation in an MA TESL course", in Johnson, K.E. and Golombek, P.R. (Eds), *Research on Second Language Teacher Education: A Sociocultural Perspective on Professional Development*, Routledge, New York, NY, pp. 168-186.

Johnson, K.E. and Golombek, P.R. (2002), *Teachers' Narrative Inquiry as Professional Development*, Cambridge University Press, New York, NY.

Johnson, K.E. and Golombek, P.R. (2011), "The transformative power of narrative in second language teacher education", *TESOL Quarterly*, Vol. 45 No. 3, pp. 486-509.

Johnson, K.E. and Golombek, P.R. (2013), "A tale of two mediations: tracing the dialectics of cognition, emotion, and activity in novice teachers' practicum blogs", in Barkhuizen, G. (Ed.), *Narrative Research in Applied Linguistics*, Cambridge University Press, Cambridge, pp. 85-104.

Johnson, K.E. and Kuerten Dellagnelo, A. (2013), "How 'sign meaning develops': strategic mediation in learning to teach", *Language Teaching Research*, Vol. 17 No. 4, pp. 409-432.

Kagan, D.M. (1992), "Professional growth among pre-service and beginning teachers", *Review of Educational Research*, Vol. 62 No. 2, pp. 129-169.

Kanno, Y. and Stuart, C. (2011), "The development of L2 teacher identity: longitudinal case studies", *Modern Language Journal*, Vol. 95 No. 2, pp. 236-252.

Lantolf, J. (2000), *Sociocultural Theory and Second Language Learning*, Oxford University Press, Oxford.

Lantolf, J. and Thorne, S. (2006), *Sociocultural Theory and the Genesis of Second Language Development*, Oxford University Press, Oxford.

Lincoln, Y.S. and Guba, E.G. (1985), *Naturalistic Inquiry*, Sage, Beverly Hills, CA.

Malderez, A. (2009), "Mentoring", in Burns, A. and Richards, F. (Eds), *The Cambridge Guide to Second Language Teacher Education*, Cambridge University Press, Cambridge, pp. 259-268.

Maxwell, A.J. (2004), *Qualitative Research Design: An Interactive Approach*, 2nd ed., Sage, Thousand Oaks, CA.

Orland-Barak, L. (2001), "Learning to mentor as learning a second language of teaching", *Cambridge Journal of Education*, Vol. 31 No. 1, pp. 53-68.

Patton, M.Q. (2001), *Qualitative Research and Evaluation Methods*, Sage Publications, Thousand Oaks, CA.

Roth, W. and Tobin, K. (2002), *At the Elbow of Another: Learning to Teach by Co-Teaching*, Peter Lang, New York, NY.

Roth, W. and Tobin, K. (2004), "Co-teaching: from praxis to theory", *Teachers and Teaching: Theory and Practice*, Vol. 10 No. 2, pp. 161-179.

Salles El Kadri, M. and Roth, W.-M. (2013), "'I am a Pibidiana': societal relations as the locus of sustained development in a teacher education program in Brazil", *Australian Journal of Teacher Education*, Vol. 38 No. 5, pp. 89-114.

Shulman, L.S. (1986), "Those who understand: knowledge growth in teaching", *Educational Researcher*, Vol. 15 No. 2, pp. 4-14.

Siry, C.A. (2011), "Emphasizing collaborative practices in learning-to-teach: co-teaching and co-generative dialogues in a field-based methods course", *Teaching Education*, Vol. 22 No. 1, pp. 91-101.

Smagorinsky, P., Cook, L.S. and Johnson, T.S. (2003), "The twisting path of concept development in learning to teach", *Teachers College Record*, Vol. 105 No. 8, pp. 1399-1436.

Stake, R.E. (1995), *The Art of Case Study Research*, Sage, Thousand Oaks, CA.

Stanulis, R.N. and Russell, D. (2000), "Jumping in: trust and communication in mentoring student teachers", *Teaching and Teacher Education: An International Journal of Research and Studies*, Vol. 16 No. 1, pp. 65-80.

Strauss, A. and Corbin, J. (1998), *Basics of Qualitative Research*, 2nd ed., Sage, Thousand Oaks, CA.

Tobin, K. (2006), "Learning to teach through co-teaching and co-generative dialogue", *Teaching Education*, Vol. 17 No. 2, pp. 133-142.

Tobin, K. and Roth, W. (2005), "Implementing co-teaching and co-generative dialoguing in urban science education", *School Science and Mathematics*, Vol. 105 No. 6, pp. 313-313.

Vygotsky, L.S. (1978), *Mind in Society*, Harvard University Press, Cambridge, MA.

Vygotsky, L.S. (1981), "The genesis of higher mental functions", in Wertsch, J.V. (Ed.), *The Concept of Activity in Soviet Psychology*, Sharpe, Armonk, NY, pp. 134-143.

Wink, J. and Putney, L.G. (2002), *A Vision of Vygotsky*, Allyn & Bacon, Boston, MA.

Yin, R.K. (2009), *Case Study Research: Design and Methods*, Sage Publications, Thousand Oaks, CA.

Further reading

Nolan, J. and Hoover, E. (2007), *Teacher Supervision and Evaluation: Theory into Practice*, John Wiley & Sons, Hoboken, NJ.

Roth, W.M. (2002), *Being and Becoming in the Classroom*, Ablex, Westport, CT.

Appendix 1. Post-session interview questions

Questions for mentors

(1) How did you use the protocol for this mentoring session? Why?

(2) How did you feel about this session?

(3) If you participate in this mentoring session next time, do you think you will do anything differently? Why (not)?

Question for pre-service teachers

(1) How did you feel about this session?

Appendix 2. Sample protocol

Lesson planning questions

Objectives:

(1) What will the students take away from today's lesson?

(2) What skills is this an occasion to teach, and how will students transfer these skills to future lessons?

(3) What information should they retain from today's lesson?

Organization:

(1) How does this lesson follow from previous lessons?

(2) How are the skills and information in this lesson connected to tomorrow's lesson?

Motivation/engagement:

(1) Why should the students care about these skills or materials?

(2) How can I motivate or interest them in the material?

Scaffolding:

(1) What prior knowledge can I draw on to help explain the new material?

(2) How can I help the students make connections between new information and their prior knowledge?

(3) What about today's lesson will be most difficult for the students?

(4) What skills, tips, and structure can I give students to help them troubleshoot their difficulties?

Presentation:

(1) How will I order the presentation of information?

(2) How can I ensure that the students understand my directions?

(3) How can I make my explanations clear to the students? Will they know what to hand in?

Assessment:

(1) How will I know if the students have mastered the skills and/or important information outlined in my objectives?

(2) How will I grade their products? (The questions in this section are based on Johnson, 1999, pp. 111-112.)

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