

A SUPERVISOR'S SCAFFOLDING STRATEGIES IN EFL TEACHER EDUCATION: A CASE STUDY IN ARGENTINA

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Introduction

Guiding and supporting students has always been a key feature of a teacher's role. Helping learners to go through their evolving zones of proximal development (Vygotsky 1978), and gradually, develop more complex developmental levels requires teachers to take careful and gradual steps to provide adequate scaffolding. Fulfilling these roles places heavy demands on teachers as they need to address their learners' needs and effectively support them to promote and enhance learning. This article seeks to explore the ways in which a supervisor at an EFL Teacher Education programme in Córdoba, Argentina helps student-teachers in order to adequately scaffold their learning and, therefore, instigate their development.

Theoretical framework

Wood, Bruner and Ross (1976) coined the metaphor of *scaffolding* to refer to the kind of guidance offered by an adult and characterized it as a:

"process that enables a child or novice to solve a problem, carry out a task or achieve a goal which would be beyond his unassisted efforts. This scaffolding consists essentially of the adult "controlling" those elements of the task that are initially beyond the learner's capacity, thus permitting him to concentrate upon and complete only those elements that are within his range of competence." (p. 90)

Cazden (1979, as cited in Stone 1998a) extended the use of scaffolding to the context of teacher-student interactions. The original construct of scaffolding put forth by Wood et al. (1976) has evolved to integrate a multiplicity of perspectives. According to Stone (1998a), during the 1980s the scaffolding metaphor displayed four key characteristics: 1) both the adult and the learner share a common goal; 2) the adult diagnoses the learners' current level of understanding in order to calibrate the assistance provided; 3) the adult has a wide repertoire of assistance types to deploy depending on the nature of the task and 4) the support is temporary and gradually removed. Within the context of the present study, scaffolding is conceived of as the support a teacher gives to a learner when carrying

out a task which he/she would not be able to accomplish on his/her own (van de Pol et al. 2010). These researchers claim that scaffolding does not merely imply providing support strategies. Some distinguishing features characterize the construct. To start with, the scaffolding process is interactive since both teachers and learners are active participants (Stone 1998a, 1998b). Furthermore, scaffolding involves contingency, fading support and transferring the responsibility to the learner. Contingency is defined as the tailored or calibrated assistance a teacher provides; in other words, it refers to support that is adapted to the learner's current level of understanding and/or affect. Fading consists of the gradual removal of scaffolding over time. Fading and transfer of responsibility are closely intertwined. If fading is contingent, then the learner gradually gains control over his/her own learning.

Method

This study was carried out at an EFL Teacher Education programme in Córdoba, Argentina. One Practicum supervisor and ten student-teachers participated in the study. The supervisor was a senior EFL teacher, who had 23 years of teaching experience and 20 years of in-service supervisory experience. Furthermore, she had worked as a Practicum supervisor and a Methods teacher for nine years. At the time of data collection, the student-teachers were all 4th year students, who were undertaking the last practicum before majoring in TEFL.

The data collection sources were the audio-recordings of the one-to-one tutoring sessions the practicum supervisor held with all the student-teachers. During these sessions, they discussed lesson plans, commented on previously taught lessons and exchanged views on changes made to the lesson plans after being suggested by the supervisor, among other issues. Therefore, it was assumed that the interactive nature of scaffolding could be observed and explored in the context of these one-to-one sessions.

All the informants agreed to participate voluntarily in the study. A written informed consent was obtained from all of them. The

participants' identities have remained anonymous throughout this work. In addition, all the names mentioned by the informants during the interactions were deleted except for the initial letter followed by three dots (e.g. I...). The setting and the participants were described with caution so as not to disclose the identities of either the people involved or the institution where the study was carried out.

Since some research has already been carried out in the field of scaffolding and measuring instruments are already available, I opted for a tighter or deductive design (Miles & Huberman 1994) with a pre-established set of analytic categories to describe scaffolding. In keeping with the research instruments devised by van de Pol et al. (2012), which serve to describe the process of scaffolding in qualitative terms, data analysis comprised identifying the means through which the supervisor first gathered information about the student-teachers' current level of understanding and then decided on the type of help they required. In other words, both the diagnostic strategies and the intervention strategies the supervisor deployed were examined, since the present study was concerned with the scaffolding strategies used by the supervisor at the EFL Teacher Education programme in order to help the student-teachers move forward in their learning-to-teach process. In sum, the analysis consisted of 1) classifying all the diagnostic strategies according to their realization: a) *posing a diagnostic question* or b) *reading the student-teacher's work* (lesson plan) (van de Pol et al. 2012); and 2) coding the type of support provided by the supervisor to the student-teachers in accordance with the means for scaffolding described van de Pol et al. (2010), namely: *feedback, hints, instructing, explaining, modelling, questioning* and *miscellaneous*. After a preliminary scanning of the data, and due to the dynamics of the one-to-one tutoring sessions, two diagnostic strategies: c) *listening to the student-teacher's explanations / choices* and d) *diagnostic prompts*, and two intervention strategies: *providing*

alternatives and *giving opinions* were added to enhance the situated analysis of the scaffolding process in the context of the one-to-one tutoring sessions.

Results

The data analyzed consist of 24 tutoring sessions, which were recorded by the practicum supervisor. The sessions varied in length, ranging from six to nineteen minutes. Most of the sessions, however, lasted about 11 minutes. The sessions were further divided into 102 interaction fragments; each fragment dealt with one issue or topic in particular.

The results are presented in two sections. The first describes the diagnostic strategies the supervisor made use of in order to gather information as regards the student-teachers' current level of understanding. In the second section, I discuss the types of intervention strategies deployed by the supervisor in order to provide support.

Diagnostic strategies

Since gathering information about the student-teachers' understanding was an essential step to tailor the support they required, all the diagnostic strategies were identified and analyzed for the type of strategy. The supervisor was found to resort to at least one diagnostic strategy before offering help in most of the fragments (n= 98, 96%), whereas she did not make use of any diagnostic strategy in only four of the fragments analyzed (4%).

225 instances of diagnostic strategies were found in the data. *Posing a diagnostic question* was observed to be the most frequent strategy (n= 100, 45%) followed by *reading the student-teacher's work* (n= 66; 29%), *listening to the student-teacher's explanations / choices* (n= 42, 19%) and *diagnostic prompts* (n= 17; 7%). Table 1 shows the number and percentages of the diagnostic strategies found in the data set.

Diagnostic strategies	Diagnostic question		Reading		Listening		Diagnostic Prompts		TOTAL N° of strategies
	n	%	N	%	n	%	N	%	
TOTAL	100	45	66	29	42	19	17	7	225

Table 1 – Figures for diagnostic strategies

Diagnostic strategies were found to vary in number per fragment. The range of diagnostic strategies used was 0-8. Resorting to only one strategy per fragment occurred the most in the data set (n= 37, 36%). In decreasing order, the following patterns were found: two diagnostic strategies per fragment occurred in 29 fragments (28%) whereas 3 diagnostic strategies per fragment occurred in 16 fragments (16%). In addition, different types of diagnostic strategies were used per fragment, which resulted in different combinations. Two combinations (n= 43, 42%) and one combination (n= 42, 41%) occurred the most.

The analysis of the type of diagnostic strategy in terms of number and combinations per fragment provides evidence to support the importance of a diagnostic phase to provide contingent support. The following example illustrates the analysis of diagnostic strategies. The turns between the supervisor (I) and the student-teacher (S) in the fragment have been numbered and the type of diagnostic strategy has been identified at the end of the corresponding turn to help the analysis.

- (1)T:** ok, tell me (diagnostic prompt)
- (2)S:** they [the students] are studying have got, so I thought that ... earlier this morning they were reviewing it, they have already studied it, they are reviewing it.
- (3)T:** then you don't need to present it as a new topic. Right?
- (4)S:** I don't have to present anything new.
- (5)T:** (T is reading) (reading the student-teacher's work)
- (6)S:** so, this is the exercise. They have to complete with the negative form or the other way around. I have problems with the timing.

In the example above, the supervisor first made use of a diagnostic prompt (turn 1) to encourage the student-teacher to start explaining her lesson plan so as to become acquainted with her decisions and choices and determine her level of understanding. After a brief introduction, the supervisor went on reading the lesson plan (turn 5) to gain more information. Two different types of strategy – *diagnostic prompt* and *reading the student-teacher's work* – were used in combination to diagnose her understanding.

The exchange that follows shows another type of diagnostic strategy: *posing a diagnostic question*, which the supervisor made use of in order to collect information. The turns in the fragment have been numbered and the type of diagnostic

strategy has been identified at the end of the corresponding turn to help the analysis.

- (7)S:** And then comes the presentation.
- (8)T:** (T is reading). How are you going to present it? So... you're going to talk about popular sports in Argentina. (reading the student-teacher's work + posing a diagnostic question)
- (9)S:** That's right, and I'm going to take ...
- (10)T:** How are you going to present sports visually? (posing a diagnostic question)
- (11)S:** I'm going to bring a poster so as not to waste time, for example the USA and Argentina, and then I'm going to say: where do you think this is popular in USA, Argentina or both?
- (12)T:** I'm just thinking that.

In the second example, the supervisor started the interaction fragment by reading the presentation the student-teacher had devised to introduce vocabulary related to sports (turn 8) and immediately after that, in the same turn, the supervisor posed a diagnostic question to gather more information. Again in turn 10, a follow-up diagnostic question enabled the supervisor to create a more complete picture of what the intended presentation would be like. In this example, three diagnostic strategies and two different types in combination, i.e. *reading the student-teacher's work* and *posing a diagnostic question*, were used.

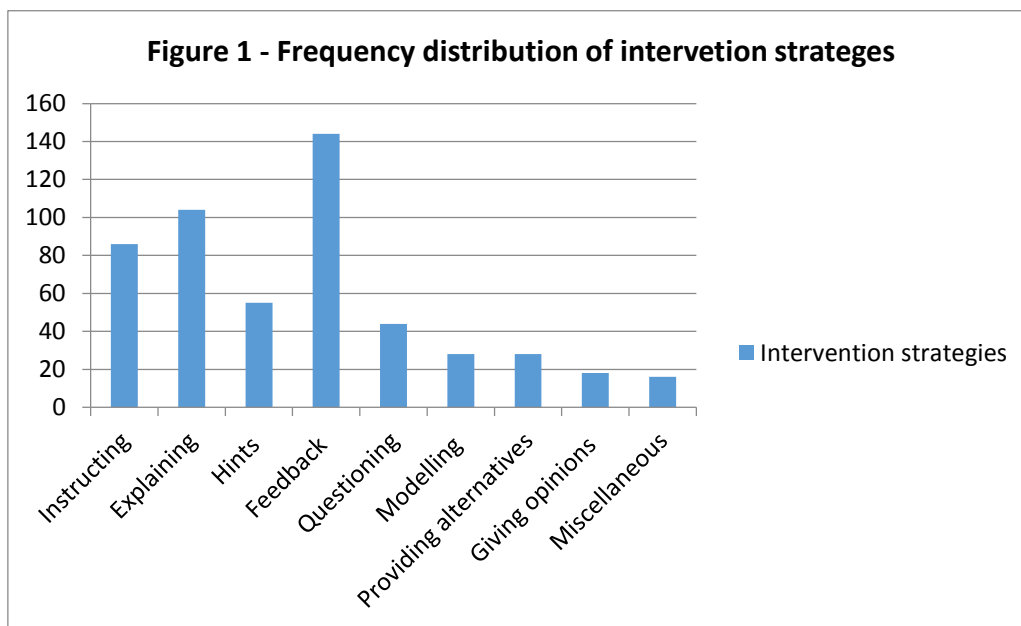
Both examples provide evidence of the importance of resorting to diagnostic strategies. The use of more than one strategy seemed to reinforce the diagnostic phase of the interaction fragment and gradually helped the supervisor gather more precise information and build up a more detailed profile of the student-teacher's zone of proximal development.

Intervention strategies

Intervention strategies refer to the actual means of support that teachers employ to help students in a variety of different situations. In the tutoring sessions analysed in this research study, eight different intervention strategies were examined: *instructing*, *explaining*, *hints*, *feedback*, *questioning*, *modelling*, *providing alternatives* and *giving opinions*. A ninth category – *miscellaneous* – was used to include other strategies which did not fit any of the eight categories. A total of 523 intervention strategies were found in the whole data set. It must be noted that most of the supervisor's turns included more than one intervention strategy, so all the utterances in one turn were grouped according to the function they served as a means of support. Figure 1 shows the frequency distribution of all the

intervention strategies. The percentages were also calculated for each intervention strategy: instructing (16%), explaining (20%), hints (11%),

feedback (28%), questioning (8%), modelling (5%), providing alternatives (5%), giving opinions (4%) and miscellaneous (3%).



The analysis of intervention strategies showed that each interaction fragment contained multiple instances of support or intervention strategies. These strategies realized the specific help the supervisor provided the student-teachers with in relation to the lesson plan (e.g. the activities chosen, their gradation, the materials to be used and/or the procedures followed, among others), difficulties or issues that concerned the student-teachers (e.g. timing, the use of the L1, discipline, among others) or different aspects of a previously-taught lesson. Three kinds of intervention strategies were found to occur most frequently in the 24 tutoring-sessions analysed. In decreasing order, they were: *feedback*, *explaining* and *instructing*.

Hints and *questioning* followed in terms of frequency accounting for 11% and 8% of all the instances found, respectively. The following strategies – *modelling*, *providing alternatives*, *giving opinions* and *miscellaneous* – occurred the least with quite similar frequencies of occurrence.

The following interaction fragment provides evidence of the multiple instances of intervention strategies identified per fragment and reflects the dynamics mainly established by the supervisor. The turns between the supervisor (I) and the student-teacher (S) in the fragment have been numbered and the type of intervention strategy has been identified at the end of the corresponding turn to help the analysis.

Turns	Intervention strategy
(13)T: what about a warming-up? You haven't included anything in, you just, it's like you get into the classroom and say <i>ok, hello, open the books</i> . Have you thought of anything like that?	Questioning
(14)S: to be honest I did it so quickly.	
(15)T: because I think you...	
(16)S: I'm going to come tomorrow, so that's why I wanted you to correct some things.	
(17)T: I'd suggest you include a warming-up, especially because they don't know you, you don't know them, so something to break the ice that might be related to the topic or not, but it's like a lead-in for practice in this case because you are not going to introduce anything, it would be interesting, it would be the best actually, so leave that. Ok let's move on to the next part but please for tomorrow think about something through which they can actually remember, recycle, whatever in connection to in this case <i>have</i> and <i>has got</i> , so first this exercise, ok, so you work with the warming-up and then you move to the next activity.	Instructing Explaining Giving opinions Instructing

(18)S: right so as to ...	
(19)T: because you won't be sure whether they remember the topic or not, the warming-up activity can help you check this, how much the students know about the topic. Otherwise, you get into a more difficult activity without having checked that and maybe they cannot do the activity.	Explaining
(20)S: that's right (?) so that they know the topic well and they are prepared to go on with the next exercise.	
(21)T: and, the warming-up activity can be ordering the elements in a sentence, something brief.	Providing alternatives
(22)S: I remember now that the teacher told me that she had asked the students to bring pics of Monsters Inc. so as to describe them, but they didn't have enough time to work with that activity, so I may use the material next Monday.	
(23)T: fine. Let's hope they bring the pics again.	Feedback Miscellaneous
(24)S: well, they have brought the pics every day, today they asked the teacher: <i>Can we work with them?</i> , they seemed to be really interested, so maybe I could use the pictures in the warm-up activity.	
(25)T: it'd be a good idea.	Feedback
(26)S: asking questions, or ...	
(27)T: because they know the interrogative form.	Explaining
(28)S: right.	
(29)T: then, it'd be great, excellent, so you engage students with the activity and see if they can actually work with the topic, whether they answer, whether they know the topic or not.	Feedback Explaining
(30)S: well, I'd do that to practice <i>hasn't</i> ...	
(31)T: great!	Feedback

The fragment above shows that the supervisor identified the lack of a warming-up activity as a weakness in the lesson plan. The first help that was identified is a question in turn 13 through which the supervisor aimed to raise the student-teacher's awareness of this lack. Since the student-teacher seemed not have thought about a warming-up activity as seen in turn 14, the supervisor immediately decided to explicitly tell her what to do in turn 17. The following utterances show the instructing function: "I'd suggest you include of course a warming-up" and "please for tomorrow think about something through which they can actually remember, recycle, whatever in connection to in this case *have* and *has got*." The need for a warming-up was reinforced by means of a lengthy explanation of the reasons underlying this type of activity, which extended over several turns (turns 17, 19, 27 and

29), along with the supervisor's own opinion in turn 17 and a suggested warming-up activity in turn 21. Within the same interaction and after the first string of help, the student-teacher came up with her own warming-up activity (turn 22), so more instances of support followed (turns 23, 25, 27, 29 and 31). They mainly consisted in providing positive feedback as the supervisor appeared to agree with the proposal put forth by the student-teacher.

Along similar lines, the following interaction fragment illustrates how the supervisor gave help when she spotted a particular difficulty. The turns between the supervisor (I) and the student-teacher (S) in the fragment have been numbered and the type of intervention strategy has been identified at the end of the corresponding turn to help the analysis.

(42)T: = or you may write on the board: Do you think this sport is popular in Argentina? Is it popular in Argentina? Is it popular in the USA?	Providing alternatives Modelling
(43)S: or both countries?	
(44)T: right, and you may use gestures. Ok, then. You can start like that. Well-done.	Hints Feedback
(45)S: ok, that's as far as the presentation is concerned. In fact, it's a revision lesson, isn't it?	
(46)T: right, because the teacher elicited sports from students last class, didn't she?	
(47)S: That's right. The students came up with this list.	
(48)T: Revision, then. So here you have about 10 minutes.	

In the example presented before, the student-teacher seemed to have difficulty in adapting her language to the students' level. The supervisor proceeded to tell her what to do ("these chunks of language, should be graded down, I mean, try to use fewer vocabulary items they are not familiar with"), explain to her why this was necessary ("because a student who has never heard: *what do you think? Or both*, maybe they don't know the expressions, they are going to get confused") and provide alternative sources to help the students understand ("Instead, you may write *popular* on the board while you're talking"). In addition, the supervisor resorted to modeling the language in order to make it more suitable to the students' level as in "For example, *is this popular in Argentina? Yes or no?*" and "*Do you think this sport is popular in Argentina? Is it popular in Argentina? Is it popular in the USA?*" An example of hints was also found in turn 44 when the supervisor gave a tip ("you may use gestures") and feedback when she agreed with the activity ("Ok, then. You can start like that. Well-done").

The two examples above illustrate the procedure the supervisor employed to help the student-teachers. In most cases, she provided support by different means and combined explanations and feedback with an explicit instruction on what to do. As several interaction fragments contained multiple instances of help, it can be seen that the student-teachers were equipped with large amounts of information that guided lesson planning and/or lesson teaching. In these examples, it was also observed that the supervisor's turns were much longer than the student-teachers' turns, which can be accounted for by the numerous instances of help found per fragment and, even, per turn.

The findings described here seem to indicate that the student-teachers' learning-to-teach process was carefully scaffolded by the supervisor who made use of diagnostic strategies as a basis to provide each student-teacher with the most appropriate kind and amount of help. At a macro-level, the use of diagnostic strategies and intervention strategies appeared to support the fact that the supervisor applied contingent support, which was later faded as she transferred the responsibility to the student-teachers by allowing them to teach the lessons under discussion. Diagnostic and intervention strategies varied in number and types, which provided both the supervisor and the student-teachers with large amounts of information.

Conclusion

As far as can be concluded from the results section, resorting to diagnostic strategies is a defining feature of effective scaffolding. The importance of diagnosis is attested to in the tutoring sessions by the fact that the supervisor mainly resorted to multiple diagnostic strategies in each interaction fragment analyzed and combined them in different ways. It can be said that the supervisor had plenty of diagnostic information at her disposal.

The actual support or help a teacher provides is realized by different intervention strategies. In the context of this research, multiple and simultaneous intervention strategies were observed in the data set. They far outnumber the diagnostic strategies the supervisor employed. Feedback, explaining, instructing and hints accounted for 75% of the intervention strategies found whereas questioning, modelling, providing alternatives, giving opinions and miscellaneous strategies accounted for the remaining 25%. On the surface level, these intervention strategies appear to be contingent because they were used to help and support the student-teachers in accordance with their current level of understanding. In other words, the supervisor employed them after diagnosing the student-teachers' understanding. To conclude, the scaffolding process in the context of this research is characterized by a follow-up intervention phase in which the student-teachers' difficulties and/or weaknesses are addressed by a multiplicity of means, bearing in mind the diagnostic information collected beforehand.

Scaffolding is a dynamic construct as participants constantly interact with each other and shape their ongoing intervention modalities. What both the supervisor and the student-teachers do and say are closely intertwined since they are two sides of the same coin. Scaffolding as an interactive dialogic phenomenon (Puntambekar & Kolodner 2005; Stone 1998a, 1998b; Tharp & Gallimore 1991; Wertsch 1979) is clearly depicted in this research study. The way in which the supervisor scaffolds the student-teachers' learning-to-teach process in the context of the one-to-one tutoring sessions by means of both diagnostic and intervention strategies is necessarily determined by the information provided by the recipients of the teacher's help.

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