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**Scaffolding the learning-to-teach process in EFL Teacher Education:
An analysis of the tutoring sessions between a practicum supervisor
and the student-teachers**

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ABSTRACT

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, and gradually, develop more complex developmental levels requires teachers to carefully and gradually scaffold their students' learning. Scaffolding has been defined as an interactive dialogic construct in which all the participants involved play a crucial role. However, the literature reveals that most research in scaffolding has focused considerable attention on the multiplicity of types of assistance and/or support that teachers can provide. The distinct features of scaffolding are still not completely understood. From the perspective of Socio-cultural Theory (SCT), the purpose of this research study is to examine how a supervisor scaffolds the student-teachers' learning-to-teach process in the context of one-to-one tutoring sessions in an EFL Teacher Education programme in Córdoba, Argentina. The audio-recordings of the tutoring sessions were transcribed verbatim and both macro and micro-level analyses were carried out. Two main frameworks – the Model of Contingent Teaching (MCT) and the Contingent Shift Framework (CSF) – were employed to first describe how scaffolding unfolds in the context of the research and then measure whether and to what extent scaffolding occurs in the one-to-one tutoring sessions. The findings indicate that scaffolding implies two main phases or stages: a diagnostic and an intervention phase. In the former, the supervisor was found to elicit considerable information from the student-teachers and challenge them the most whereas in the latter, she offered help mainly by means of feedback, explaining and instructing and challenged them the least. In addition, about 50% of the interactions analyzed were found to be contingent, and thus scaffolding instances since she adapted her degree of control to the student-teachers' level of understanding. Although links can be established between the strategies deployed by the supervisor and supervisory roles and skills, the ways in which the supervisor's scaffolded help is realized should be understood in relation to the function it serves and how it accommodates the student-teachers' level of understanding in order to accurately depict the scaffolding process.

*TO MY CHILDREN AND HUSBAND
for making me believe that everything is possible*

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All mistakes and errors in this thesis are mine.

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LIST OF ABBREVIATIONS AND ACRONYMS

Abbreviations / acronyms	Meaning
CA	Cognitive apprenticeship
CSF	Contingent Shift Framework
CT	Cooperating teacher
EFL	English as a Foreign Language
MCT	Model of Contingent Teaching
PT	Pre-service teacher
SLTE	Second Language Teacher Education
SCT	Socio-cultural Theory
TESOL	Teaching English to speakers of other languages
US	University supervisor
ZPD	Zone of proximal development
ZPTD	Zone of proximal teacher development

CHAPTER 1

INTRODUCTION

1.1 Introduction

Second Language Teacher Education (SLTE, henceforth) can be described as an evolving field. Numerous constant developments since the 1960's have informed and shaped SLTE (Richards, 2008; Wright, 2010). To name just a few, the gradual advances in language and learning theories have provided a theoretical foundation for different teaching methods and approaches. These views have been integrated and led to significant changes in how we conceive of teaching, learning, the teachers, the learners, the materials, the teaching procedures, among several other aspects, in recent decades. For instance, the main principles underlying constructivist perspectives have resulted in a redefinition of teacher and student roles, and consequently, these roles in the learning process shifted from being teacher-centred to being learner-centred. Wright contends that in the 1980's SLTE mainly focused on teaching methods and techniques whereas towards the end of the century, it became more concerned with learning to teach. More recent developments in the field of SLTE have embraced the main tenets of Socio-cultural Theory (SCT) (Vygostky, 1978), reflective practice (Schön, 1983) as well as the developments in teacher cognition (Borg, 2003, 2006). Freeman and Johnson (1998) argue in favour of a reconceptualised knowledge base of SLTE, which encompasses three domains: a) the teacher as a learner of teaching; b) schools and schooling as social contexts of teacher learning, and c) the pedagogical process of teaching and learning.

Socio-cultural Theory (Vygosky, 1978) views learning as a socially mediated process among experts and novices, which progressively moves to the internalization of higher mental functions and transforms the self and the learning activity itself (Johnson, 2006). The key construct of the *zone of proximal development* (ZPD) stresses the importance of the learner's maturing functions as indicative of their potential for learning and highlights what learners can already achieve with the help of a more capable person. Therefore, the experts and novices' joint activity in meaning-making contribute to view learning prospectively. These principles have influenced SLTE as teacher education programmes have come to conceive of student-teachers as "a community of learners engaged in social practices and the collaborative construction of

meanings” and have advocated teaching modes which involve “dialogue and collaborative inquiry” (Richards, 2008, p. 6). Activities that foster this form of joint participation help the student-teachers engage in conversation with others to exchange ideas, learn from each other’s experiences, plan, make decisions, evaluate, analyze, among other activities.

Teaching practice or the practicum is a core component of any teacher education programme since it contributes to the goal of learning to teach. As a dimension of SLTE, it has also undergone several changes along the years and has followed the newly developed research trends in feeder fields such as SCT. Collaborative work while in the learning-to-teach process has afforded the student-teachers opportunities to engage in conversation with the other parties involved in the process such as teacher educators, school-based tutors, peers and school authorities and learn from these formative meetings. Teaching practice offers a multiplicity of opportunities to work with others; however, most of the research carried out has tended to focus on post-observation conferences and the feedback that the student-teachers are given after teaching a lesson (see Brandt, 2008; Copland, 2010; Tang & Chow, 2007). Much less is known about other instructional practices which involve dialogue and collaborative inquiry.

Collaborative work grants both teacher educators and student-teachers plenty of developmental opportunities. They are enabled to exchange and respond to each other’s ideas, negotiate agreements, understand each other’s points of view and relate them to their beliefs and learning experiences, seek help and guidance when necessary, require affective support to deal with anxiety and frustration, for example, among others. Some teacher education programmes offer tutoring sessions in which both student-teachers and teacher educators meet to carry out some of the activities mentioned before. The role that each of them is entitled to play in these sessions varies, with teacher educators adopting a more or less directive style. From the perspective of SCT, teacher educators play a crucial part since they need to effectively address each student-teacher’s individual zones of proximal development in order to enhance their potential for learning and focus not only on what they can already do on their own but also on what they can attain with the help of others. Therefore, one of the key skills that they need to develop is to scaffold the student-teachers’ learning-to-teach process. How and to what extent scaffolding unfolds in these tutoring sessions is the main concern of the present investigation.

1.2 Statement of the problem

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, 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.

In my experience as a university supervisor in the practicum at the EFL Teacher Education Programme at the School of Languages, Córdoba State University, I have always been concerned with the question of how and to what extent my role as supervisor instigated the student-teachers' development. It led me to reconsider different issues such the ways in which I conducted the tutoring sessions and the post-observation conferences as well as the power relations and the degree of involvement that each of the participants, including me, developed. Much of the literature has reviewed teacher's supervisory and/or advisory roles and skills. Nevertheless, Randall and Thornton (2001) claim that scant attention has been given to the recipients of that advice. It was a deep concern about questioning and reviewing my own supervisory role without neglecting the part played by the student-teachers which triggered this research study. Consequently, I decided to conduct research on scaffolding since its interactive nature would enable me to trace how supervisors tailor what they do and say according to what student-teachers do and say in an attempt to meet their learning needs. The study is not only concerned with the help that the supervisors provide but with other steps they take in order to adequately scaffold their student-teachers' learning.

1.3 Literature review

The present literature review is organized in three parts. The first section focuses on studies that describe the multiple ways in which teachers support students in the field of teacher training and education since the context of this research is an EFL Teacher Education Programme. Some of them characterize teacher assistance and support in terms of the specific skills teachers deploy (Crasborn, Hennissen, Brouwer, Korthagen, & Bergen, 2008; Gwyn Paquette, 2001; Waring, 2013), and thus outline different roles

associated to certain skills (Chen & Cheng, 2013; Hennissen, Crasborn, Brouwer, Korthagen, & Bergen, 2008). In other words, these studies list several teacher skills and, in some cases, place them in a continuum from greater to lesser levels of teacher control and/or intervention. The second section reviews research on teacher assistance and support but from the perspective of scaffolding. These studies involve a definition of scaffolding. However, most of these conceptualizations equate scaffolding with specific means of support or assistance. That is to say, these studies describe scaffolded help in terms of different skills and/or strategies teachers deploy (Bean & Stevens, 2002; Cartaut & Bertone, 2009; Engin, 2012; Van Zoest & Stockero, 2008). Finally, a close look at the evolving definition of scaffolding has disclosed important features of the concept which have been disregarded by research studies from both a theoretical and a methodological perspective. For example, Stone (1998a, 1998b) highlights the interactive nature of the scaffolding process whereas van de Pol, Volman and Beishuizen (2010) claim that scaffolding does not merely imply providing support or scaffolding strategies, but it involves *contingency*, *fading* and *transfer of responsibility*. Some studies have integrated these concepts into an operational definition of scaffolding, thus indicating what counts as scaffolding and what does not (Mercer & Fisher, 1992; Nathan & Kim, 2009; Oh, 2005; Ruiz-Primo & Furtak, 2006; van de Pol, Volman & Beishuizen, 2011). The third section of this review deals with studies which have attempted to offer a more comprehensive study of scaffolding by moving beyond the analysis of types of assistance.

1.3.1 Studies that examine teacher's mentoring and/or supervisory skills in teacher development and education

The study of teachers' support has focused considerable attention on the multiplicity of ways in which their help can be realized, which, in turn, has led to a wealth of research on teacher's roles and skills. In the context of pre-service and in-service teacher development and education, supervisory and mentoring roles are played by university supervisors and mentor teachers, respectively. In both contexts, numerous skills and roles have been identified and described. For example, Crasborn et al. (2008) and Hennissen et al. (2008) claim that school-based mentor teachers need to develop and deploy a wide repertoire of mentoring skills that support the versatile mentoring roles they are expected to play. Along the same lines, Bailey (2006) points out that

language teacher supervisors need to develop different skills, which are determined by both the context and the supervisor's chosen role. This section reviews studies that have identified different mentoring and/or supervisory skills teachers deploy to assist either pre-service or in-service teachers. Some of these studies have also established links between certain skills and the roles played by supervisors or mentor teachers.

In a review of mentor teachers' supervisory behaviour in mentoring dialogues in in-service settings, Hennissen et al. (2008) identified different specific supervisory skills associated with particular styles of mentoring. The researchers claim that the skills mentors deploy most frequently are usually in keeping with the role/s they take on during mentoring dialogues, and thus distinguished directive from less directive styles. 16 studies out of the 26 studies reviewed in their investigation showed that directive supervisory styles involved skills such as "assessing, appraising, instructing, confirming, expressing one's own opinion, offering strategies and giving feedback" (p. 175) while non-directive skills comprised "asking questions, guiding to developing alternatives, reacting emphatically, summarizing and listening actively" (ibid). Chen and Cheng (2013) observed in a case study carried out in Taiwan that prescriptive supervision is frequently used in teacher supervision in an in-service context. Along the same lines, the existing literature reveals that directive supervisory styles prevail over less directive ones in mentoring dialogues (Edwards & Protheroe, 2004; Hawkey, 1998b; Williams et al., 1998, as cited in Hennissen et al., 2008), and that novice mentor teachers seem to adopt a directive style more often than more experienced mentor teachers do. Therefore, untrained mentors tend to be more prescriptive and a source of subject matter knowledge (Ben-Peretz & Rummey, 1991, as cited in Hennissen et al., 2008), and a role model to emulate (Franke & Dahlgren, 1996; Williams et al., 1998, as cited in Hennissen et al., 2008). Hennissen et al.'s study also found that mentor teachers give more active than reactive input during mentoring dialogues by initiating the dialogues and participating more often than the prospective teachers do.

Drawing on the supervisory skills distinguished by different researchers, Crasborn et al. (2008) identified fifteen skills that have been found to characterize supervisors' behaviour in mentoring dialogues. These skills either aimed to provide advice and instruction or foster reflection. The study sought to analyze the effects of a training programme on primary education mentor teachers' supervisory behaviour in a pre-service context. Mentors were trained in supervisory skills that stimulate reflection. On group level, a statistically significant decrease in the use of skills associated with the

advisor / instructor role, as well as an increase mainly in *asking for concreteness* and *summarizing content* – skills that prompt reflection – were found after training. Differences in total time spent on the different skills were also reported in the study, with *asking for concreteness*, *helping to find and to choose alternatives* and *summarizing content* increasing significantly and *giving information*, and *giving advice / instruction* decreasing significantly after training. These findings lend support to the need to raise mentor teachers' awareness of supervisory skills as a step forward towards encouraging reflective teaching practice on the part of student-teachers.

Over the last decades, different researchers have heightened the need for furnishing prospective teachers with the necessary tools to become reflective practitioners (Schön, 1983), and thus contribute to their professional growth. Therefore, research on supervision in teacher education has placed greater emphasis on supervisor's skills and styles that enhance student-teachers' reflective practices. In a study of supervisory conversations, Gwyn Paquette (2001) collected data via ethnographic techniques to record and observe the researcher/supervisor – pre-service History teachers interactions at secondary school level. The focus was on helping the student-teachers develop an understanding of cooperative learning in order to implement it in the classroom. The study, thus, only analyzed the supervisory skills that prompted collaboration. The findings indicate that the supervisor mainly supported prospective teachers in problem-solving, reflective practice and discussion of theoretical principles. By resorting to different strategies and skills such as prompting, questioning, paraphrasing and naming, the supervisor helped student-teachers analyze problems and work out solutions by themselves. Using diagnostic prompts was also found to aid them to reflect and rely on theoretical aspects studied in the teacher education course. The supervisor was in charge of addressing the student-teachers' affective needs as well by reassuring them when they faced difficulties, and she encouraged them to reflect by offering suggestions and reframing problems. The different skills distinguished in this study seem to fall within a less directive supervisory style, but the fact that only skills associated with cooperative learning are identified should not be overlooked since other more directive skills may have been left out on purpose. In contrast to these findings, Waring's (2013) study of mentor's skills provides evidence to support the claim that more interventionist skills may also be conducive to reflection. The research involved the analysis of video-recorded post-observation conferences between a course instructor and four graduate practicum students in an MA TESOL programme in the United

States. The study concluded that assessment and advice (skills usually associated with directive supervisory styles) can also promote reflection in an indirect way since student-teachers were not explicitly required to engage in reflective practice, but managed to do it.

1.3.2 Studies that examine scaffolding in terms of teacher support

The last decades have witnessed a steady growth in research on teacher education and development from the perspective of Socio-cultural Theory. Pre-service teacher supervision and mentoring can be understood as a process in which teacher educators bring different tools into the student-teachers' zone of proximal development (Vygotsky, 1978). Adequate guidance or scaffolding is an essential process to assist and guide the prospective teachers to complete a task successfully or achieve a goal (Wood, Bruner & Ross, 1976). This section reviews studies that have analyzed scaffolding from the perspective of teacher support, or scaffolding means. In these cases, scaffolding is mainly defined as assistance or support. For instance, Bean and Stevens (2002) sought to examine the role of two course instructors' scaffolds in shaping pre-service and in-service teachers' discourses about adolescent literacy. For that purpose, the researchers analyzed the teachers' reflective journal assignments of two university literacy courses. Although heavy claims are made regarding the impact scaffolding might have had on the reflective responses of both groups of teachers, the findings only provide evidence of different patterns of reflection. The extent to which scaffolding influenced the teachers' reflections was measured by the responses including references to the aspects mentioned by the instructors in the prompts and the group discussions. However, how scaffolding was operationalized to elicit responses at the different levels of discourse is not fully stated. Although the study attempts to provide some insights into the role of scaffolding, it only examines focusing techniques and modelling as a means to scaffold reflection.

In a case study involving a university supervisor (US), a cooperating teacher (CT) and a pre-service teacher (PT) in Physical Education during the field placement at the French University Institutes of Teacher Training (UITT), Cartaut and Bertone (2009) explored the specific and complementary scaffolding modalities used by the two teacher educators as well as their effects on PT's professional activity development. The researchers reported that the US supported the PT by suggesting directions for finding

solutions and by raising new concerns about the requirements of the teaching profession in general and of the training institute in particular. It was further found that the CT's scaffolding activity comprised the provision of alternative actions both in terms of goals and concrete operations. In addition, the PT revealed that his views and actions in the classroom changed as a result of the US's and CT's joint and complementary scaffolding process in the advisory visit and the CT's follow-up in the field training interactions. These results provided evidence of the scaffolds the two teacher educators deployed and the role that the support or scaffolding modalities played to help the PT's develop professionally. It must be noted, however, that the authors acknowledge that the study only partially elucidates the joint scaffolding process.

Scaffolding can also be used as a strategy to prompt student-teachers to self-analyze and question their past experiences and current beliefs. Van Zoest and Stockero (2008) conducted research to examine the role of synergistic scaffolds (Tabak, 2004) in supporting knowledge of self-as-teacher. The researchers designed and implemented six scaffolds in a secondary school mathematics teacher preparation program. They concluded that the student-teachers had developed a sense of self-as-teacher and that the scaffolds had served the purpose of prompting changes. To a lesser extent, some changes not prompted by the instructor were introduced, which points at influences other than the specific six scaffolds. They also explored the pre-service teachers' perceptions of the usefulness of the six scaffolds in supporting their thinking. All participants reported that the scaffolds had encouraged them to think more thoroughly than they would have otherwise, and alluded to their synergistic use. The researchers claim to have addressed the student-teachers' learning needs when designing and implementing the scaffolds; nevertheless, when stating the limitations of the study, Van Zoest and Stockero call for the systematic diagnosis of pre-service teachers' learning needs, which represents another dimension of scaffolding that was not analyzed in this study.

In order to research trainer talk from a linguistic point of view in the context of an MA class of Turkish pre-service English teachers, Engin (2012) analyzed the trainer's intervention strategies deployed in the post observation conferences as a means to scaffold the trainees' reflections and classified them according to different levels of intervention. The author found five different levels of trainer scaffolding in the interactions studied, ranging from least to direct intervention. Although the study acknowledges contingency and fading as key characteristics of scaffolding, little

discussion is offered in relation to how they are reflected in the interactions studied, which places the focus of scaffolding only on the means of teacher support.

Bean and Stevens' (2002), Cartaut and Bertone's (2009), Engin's (2012) and Van Zoest and Stockero's (2008) research studies examine scaffolding provided to either pre-service or in-service teachers as an aid to support different activities. Nevertheless, these studies only analyze the scaffolding process from the perspective of support, thus focusing solely on scaffolded help in terms of intervention strategies. Van Zoest and Stockero and Engin bring other key features of scaffolding into the discussion but only from a theoretical point of view. Van de Pol (2012) points out that not all forms of support can be equated with scaffolding since the assistance provided needs to be contingent upon the learners' current level of understanding and faded over time.

1.3.3 Studies that examine scaffolding in terms of other defining features

Wood et al. (1976) coined the metaphor of scaffolding to refer to the assistance provided by a more capable adult to a child within his / her Zone of Proximal Development. In this research study, the authors outlined a key feature of scaffolding: contingency. Wood et al. claim that the tutor needs to gear his / her guidance to meet the learners' needs. However, the use and effects of intervention strategies to scaffold the learners' activities and affect have received more attention in recent years. Van de Pol et al. (2011) have even argued that most of the scaffolding literature has revolved around the actual support rather than around the use of diagnostic strategies necessary to define the most adequate type of support that learners require. The previous section lends support to the fact that most research on scaffolding has centred on types or means of assistance. This third section reviews studies that bring other defining features of scaffolding into the analysis such as the use of diagnostic strategies and/or contingent support. Some of these studies have integrated these characteristics to devise an operational definition of scaffolding.

As regards diagnostic strategies, Lockhorst, Wubbels and van Oers (2010) studied the learning dialogues between two biology teachers, who were regarded as exemplary teachers, and their learners at two pre-university secondary schools in the Netherlands. One of the research questions aimed to analyze whether the teachers fostered the development of higher mental functions. Data were collected via audio-recording, classroom observation and interviews. The findings suggest that the teachers

rarely posed diagnostic questions to analyze the learners' thinking strategies and skills. In the interviews, the teachers reported they relied more on their intuitions than on the information collected regarding the learner's thinking processes. As a result, on many occasions, misunderstandings were not effectively clarified and the learners' problems remained unsolved.

Van de Pol et al. (2011) conducted research to investigate the one-to-one and small-group teacher-student interactions in order to describe the process of scaffolding. The study involved three Social Studies teachers working at secondary education innovative schools of lower prevocational education in the Netherlands. These innovative schools, contrary to more traditional schools, were expected to show more instances of contingent teaching and autonomous student learning, which are key features of scaffolding. The researchers observed that in two thirds of the non-contingent interactions, the teachers did not use diagnostic strategies. Lack of diagnostic strategies was found to occur along with a miscommunication in many cases. These findings are in line with Lockhorst et al.'s (2010) results.

Other studies have sought to explore the quality of the diagnostic strategies as a means to stimulate the students' active reasoning and provide the teacher with useful information as to when and where to scaffold (Van de Pol, Volman, Elbers, & Beishuizen, 2012). Van de Pol, Volman, Oort and Beishuizen (2014) developed a Professional Development Programme (PDP) in order to train teachers to scaffold their learners. They required teachers to elicit demonstrations of understanding rather than mere claims of understanding when both diagnosing their actual levels of knowledge and when checking them. They concluded that teachers in the scaffolding condition elicited more extensive answers or demonstrations of understanding whereas teachers in the non-scaffolding condition decreased their elicitations of demonstrations of knowledge at post-measurement.

Of interest to the present work are the studies in classroom settings which have developed and/or resorted to different criteria to operationalize scaffolding so as to avoid loose and covert interpretations of the construct (Mercer & Fisher, 1992). For example, Oh (2005) studied a Korean teacher's discursive strategies in order to identify the pedagogical roles he played during his students' science project presentations and follow-up questions-answers sessions. Drawing on Maybin et al.'s (1992, as cited in Oh, 2005) operationalization of scaffolding, the researcher established three criteria to measure scaffolding in the interactions analyzed: there had to be evidence that the

teacher was aware of the learner's current level of understanding, that the learner managed to attain the learning goal with the teacher's situated help, and that the learner performed the task subsequently on his/her own. In his discussion of the findings, Oh argues that teaching should not be characterized by the mere execution of predefined lesson plans, but by the teacher's situated actions to mediate student learning. However, these discursive practices were found to be scarce in the students-teacher interactions, and this was particularly the case with respect to scaffolded help. The author warns that the reasons behind these findings may be that the criteria followed to measure scaffolding were very strictly defined. Mercer and Fisher's research study also resorted to the criteria developed by Maybin et al. to characterize scaffolded interactions. In their study, these researchers analyzed primary school teacher interventions in computer-based activities in four eastern counties of England. The study aimed to explore the teachers' role in mediating and supporting Information Technology activities, among other objectives. They found the interactions analyzed to meet the criteria set and illustrate how teachers can support children's learning without resorting to direct instruction.

Some studies have analyzed scaffolding from the perspective of contingent support. For example, Chin (2007) carried out research to explore how teachers use questions to scaffold student thinking and knowledge construction. Lessons taught by six secondary school science teachers were audiotaped and videotaped. The different questioning techniques used by the teachers were identified. It was also found that the teachers' questions built on a preceding student contribution and served as "rungs of a "cognitive ladder" enabling students to gradually ascend to higher levels of knowledge and understanding" (p. 837). Therefore, the teachers' questions were contingent in that they adjusted to the knowledge base of the students.

Ruiz-Primo and Furtak (2006) explored the ways in which four middle school Physical Science teachers carried out informal formative assessment. Data analysis comprised an operationalization of scaffolding in terms of ESRU cycles in which a teacher elicits a question (E), the student responds (S), the teacher recognizes the student's response (R) and uses the information to support student learning (U). The results of the study suggest that incomplete ESR cycles were most frequently found in the corpus analyzed (59%). Therefore, the teachers did not usually use the information gathered about their students as a source of information to determine the kind and the amount of support they required, which renders these interactions as non-contingent. It

was also observed that complete ESRU cycles had a significant impact of student performance. Teachers who followed all the steps of the ESRU cycles had students with better performances. Along similar lines, the aforementioned research study carried out by van de Pol et al. (2011) made use of the Model of Contingent Teaching adapted from Ruiz-Primo and Furtak. The researchers found only one of the teachers who participated in the study to show marginally more contingent than non-contingent interactions to scaffold the students' learning processes. On some occasions, this teacher adapted his support when he observed his students to think differently than he had expected. However, in most of the interactions recorded, the three teachers started giving support without first collecting information on the students' current level of understanding.

Other studies have sought to explore contingent support by examining whether teachers adapt the degree of control of their support to suit the students' needs. Nathan and Kim (2009) examined how the teacher's elicitation prompts were regulated according to the level of cognitive reasoning that the students exhibited over the course of a four-day lesson in a middle-school mathematics classroom in the United States. It was found that about 50% of the interactions were contingent because the students' responses that were correct were followed by a more cognitively challenging elicitation on the part of the teacher, whereas an incorrect answer was followed by a less cognitively complex elicitation prompt. The researchers point out that whether the teacher adjustments were conscious and intentional remains unclear. Similar results were reported by Pino-Pasternak, Whitebread and Tolmie (2010) in the context of parent-child tutoring. These researchers also found that non-contingent interactions were most frequently characterized by increasing control after good understanding rather than by decreasing control in response to poor/partial understanding. Along the same lines, van de Pol et al. (2012) analyzed teacher-small-group interactions. Thirty pre-vocational Social Studies teachers and their 7th or 8th grade classes participated in the study, which had an experimental design with pre and post-measurement data collection. The researchers adapted the Contingent Shift Framework (Wood, Wood & Middleton, 1978, as cited in van de Pol, et al., 2012) to determine whether the teacher's degree of control adjusted to the level of understanding demonstrated by the students and distinguished contingent from non-contingent support instances. The researchers concluded that the teachers were quite contingent, which they reported to be due to the fact that half of the teachers had been trained in scaffolding. In a similar study, van de Pol and Elbers (2013) found untrained and trained teachers to act contingently in about

60% and 80% of the cases, respectively. They also reported other patterns observed: the teachers acted non-contingently because they either kept the same level of control upon poor/good understanding or decreased their control upon poor/partial understanding. They mainly acted contingently when they increased their control upon poor/partial understanding.

Studies which aim to analyze scaffolding in the field of teacher training and education and focus not only on intervention strategies but also on other of its features are quite scarce. In a study involving pre-service teachers enrolled in a Mathematics teacher education programme, Nathan and Petrosino (2003) studied and compared the expectations held by student-teachers with advanced and basic level mathematics expertise regarding the difficulties students might encounter. More advanced teachers were found to organize their instructional approaches in accordance with their subject-matter knowledge regardless of their students' learning needs. In a study involving second language pre-service teachers, Many, Dewberry, Taylor, and Coady (2009) concluded that pre-service teachers' initial and growing views of scaffolding were reflected in how they implemented scaffolded assistance in their lessons. In particular, differences were found regarding the focus (i.e. what to scaffold) and the process of scaffolding (within lesson frameworks, across sequential lessons or through responsive instruction). The findings also suggest that pre-service teachers who had a good understanding of language and literacy development catered for the students' needs by providing more scaffolded reading instruction. The researchers underscore that teacher educators should reconsider whether student-teachers have the knowledge base in terms of pedagogical content knowledge to effectively scaffold literacy instruction in field placements. The two studies mentioned before are, therefore, restricted to the analysis of whether the teachers' assistance was contingent upon the learners' understanding.

The notion that teachers resort to different strategies and skills to support and scaffold student learning is generally accepted. The first group of studies reviewed here shows that a wide range of skills are deployed by teachers, ranging from those associated with a more directive teaching style to those connected with a less directive one. In a similar vein, the studies that examine scaffolding and equate it with teacher help or support have identified numerous ways in which this scaffolded help can be realized. It might be said that whether these studies explore mentoring and/or supervisory skills or teachers' scaffolding strategies, their object of study seems to be quite the same. In addition, since these two groups of studies are mainly descriptive, the

number of skills and strategies identified is quite comprehensive depending on their context of study. The review of the literature also emphasizes the fact that teachers need to diagnose and identify their learners' needs before actually giving support. The third group of studies reviewed reports on some features related to the definition of scaffolding. Therefore, they explore other issues such as making use of diagnostic strategies or providing contingent support and offer an operational definition of scaffolding.

1.4 Significance of the study

Few studies are grounded on a sound theoretical and methodological definition of scaffolding. They have centred mainly on only one of the features of scaffolding such as the use of intervention strategies, diagnostic strategies or contingency. Furthermore, researchers who have relied on an operationalization of scaffolding have focused primarily on studying teacher-student interactions at secondary school levels. Scant attention has been given to how teacher educators scaffold student-teachers' learning-to-teach process. This investigation intends to contribute information to the existing research on scaffolding by exploring the multidimensional construct of scaffolding in the one-to-one tutoring sessions between a practicum supervisor and the student-teachers in an EFL Teacher Education programme.

1.5 Purpose of the study

The present research study is theoretically anchored in the main tenets of Socio-cultural Theory. Its purpose is to investigate the forms and extents of scaffolding in the learning-to-teach process in the one-to-one tutoring sessions.

1.5.1 Specific objectives

- To describe the steps the supervisor takes to scaffold the student-teachers' learning-to-teach process in the one-to-one tutoring sessions and examine their contingency.

- To analyze whether the strategies that the supervisor employs to scaffold the student-teachers' learning-to-teach process in the one-to-one tutoring sessions can be related to different supervisory roles and skills.
- To determine whether and/or to what extent scaffolding occurs in the one-to-one tutoring sessions.

1.5.2 Research questions

This study seeks to provide an answer to the following research questions:

- How is scaffolding manifested in the one-to-one tutoring sessions?
- How are the situated features of scaffolding related to different supervisory roles and skills?
- To what extent does the supervisor scaffold the student-teacher's learning-to-teach process in the one-to-one tutoring sessions?

1.6 Methodological assumptions

This study was grounded in a socio-constructivist perspective since it adopted the definition of scaffolding as an interactive dialogic process (Stone, 1998a, 1998b; Tharp & Gallimore, 1991; Wertsch, 1979). It was mainly framed within a qualitative research approach and design and involved a naturalistic inquiry (Lincoln & Guba, 1985, as cited in Hatch, 2002) since scaffolding was studied in its naturally-occurring situation in the one-to-one tutoring sessions between a practicum supervisor and several student-teachers at an EFL Teacher Education programme.

The study drew on the existing scaffolding literature and, therefore, made use of two frameworks for the analysis of the characteristics of scaffolding as well as its measurement. I decided to follow a deductive design (Miles & Huberman, 1994), which relied on a set of pre-established analytic categories to analyze how the supervisor scaffolded the student-teacher's learning-to-teach process in the context mentioned above. Nevertheless, I followed an open-ended data-led procedure and allowed new categories and/or theories to emerge and be included in the analysis.

1.7 Overview of chapters

This thesis has been organized into six chapters. Chapter 1 presents the problem being investigated by stating the purpose, the specific objectives, the research questions as well as the underlying methodological decisions of the research study. It also provides an overview of different research strands in the field of scaffolding and supervisory roles and skills. Chapter 2 introduces and describes the theoretical framework that supports the study. Chapter 3 details the methodology, including how the data were collected and analyzed. Additional contextual information is provided in order to help readers understand the results. Chapter 4 reports the findings of the research, which are presented from a macro to a micro-level of analysis. Chapter 5 discusses the meaning of the research findings as well as agreements and disagreements with other research studies, explores its implications and limitations, and suggests further research. Chapter 6 presents some concluding remarks along with a personal reflection on conducting this research study.

CHAPTER 2

THEORETICAL FRAMEWORK

In the following section, I will elaborate on the theoretical underpinnings of the present research study. Firstly, I will outline current views on supervisory roles and skills. Secondly, I will develop the main tenets of Socio-cultural theory (SCT), which serves as the macro theoretical anchoring of this research. Finally, I will define the construct *scaffolding* and explore different frameworks for describing and measuring this construct.

2.1 Supervisory roles and skills

Supervisors play several roles and display numerous skills both in pre-service and in-service contexts. These roles and skills are partly shaped by either the summative or formative dimension of teacher supervision as well as the differing views on teaching and learning. Bailey (2006) claims that supervisor's roles have changed from being "largely judgemental and evaluative to being more developmental in focus" (p.6). The present research is mainly concerned with the formative dimension of teacher education. From this perspective, Wallace (1991) and Bailey review several approaches to supervision. However, a clear and useful categorization is the one drawn by Wallace (after Sergiovanni, 1977), who distinguishes two approaches: the prescriptive approach and the collaborative approach. Figure 2.1 contrasts the main supervisors' characteristics and the behaviours they exhibit.

The roles that supervisors enact in these two approaches are not mutually exclusive. Wallace (1991) points out that it is possible to find overlapping behaviours in supervisory conferences. However, research has found that prescriptive supervision is frequently used in an in-service context in Taiwan (Chen & Cheng, 2013), for example, and that directive supervisory styles prevail over less directive ones in mentoring dialogues (Edwards & Protheroe, 2004; Hawkey, 1998b; Williams et al., 1998, as cited in Hennissen et al., 2008).

Figure 2.1 – Approaches to supervision

Classic prescriptive approach	Classic collaborative approach
Supervisor as authority figure.	Supervisor as colleague.
Supervisor as only source of expertise.	Supervisor and trainee or teacher as co-sharers of expertise.
Supervisor judges.	Supervisor understands.
Supervisor applies a ‘blueprint’ of how lesson ought to be taught.	Supervisor has no blueprint: accepts lesson in terms of what trainee or teacher is attempting to do.
Supervisor talks; trainee listens.	Supervisor considers listening as important as talking.
Supervisor attempts to preserve authority and mystique.	Supervisor attempts to help trainee or teacher develop autonomy, through practice in reflection and self-evaluation

Note. Adapted from *Training foreign language teachers. A reflective approach* (p. 110), by M. J. Wallace, 1991, Cambridge, Cambridge University Press.

A multiplicity of skills emerges from each of these roles. In some cases, the same skills can be found in different approaches but implemented in divergent ways (Bailey, 2006). The analysis carried out in the present study draws on Hennissen et al.’s (2008) findings regarding supervisory skills associated with particular styles of mentoring. These researchers state that the skills mentors deploy most frequently are usually in keeping with the role/s they take on during mentoring dialogues. They distinguished directive from less directive styles and found that directive supervisory styles involved skills such as “assessing, appraising, instructing, confirming, expressing one’s own opinion, offering strategies and giving feedback” (p. 175) while non-directive skills comprised “asking questions, guiding to developing alternatives, reacting emphatically, summarizing and listening actively” (ibid). All in all, supervisory skills reflect the supervisor’s preferred roles and styles of supervision.

2.2 Sociocultural theory

Sociocultural theory (SCT) is a theory of human mental development originally conceived of by the Soviet psychologist Lev S. Vygostky. From this perspective, the human mind is understood to be a *mediated* mind. Through interaction and participation

in different contexts such as the family, the school and the workplace, among others, human beings make use of cultural tools or signs such as numbers, music, art and language to mediate their relationship with the social – material world (Vygotsky, 1978). Vygotsky acknowledges biologically endowed mental processes to play a part in the development of thinking. However, the development of higher mental processes such as problem-solving, memory, attention, rational thought, and meaning-making, among several other cognitive activities is a key component of cognitive development. The psychologist also claims that as individuals use signs, they create new culturally-based psychological processes. Culturally constructed tools help organize the brain into a “higher, or culturally shaped, mind through the integration of symbolic artifacts into thinking” (Lantolf, 2000, p. 2).

Another key concept of SCT is that of *regulation*. Villamil and de Guerrero (2006) and Aimin (2013) define regulation as the degree of control that individuals have over intellectual actions. According to Vygotsky (1978), human beings go through different stages in which their mental activities are regulated first by objects, then by other individuals, to be finally self-regulated. Thus, regulation can be understood as another form of mediation (Lantolf & Thorne, 2006). In the first stage, children resort to different objects in their environment in order to think. Their cognitive activity is controlled by objects. This phase is known as *object-regulation*. At a later stage, children rely on other individuals in their environment (parents, siblings, teachers, among others), who mediate their mental activities by providing guidance, assistance and/or control. This stage has been termed *other-regulation* and it can be considered a form of scaffolding at the surface level. In the final stage, individuals manage to control their own cognitive activities without requiring assistance from external means of mediation. This stage is known as *self-regulation*. Lantolf (2000) provides a useful example to illustrate the different stages of regulation. In a research study carried out by Luria (1981, as cited in Lantolf, 2000), children were required to press a bulb every time they saw a green light come on and stop pressing whenever they saw a red light. Very young children were unable to control their behaviour as they tended to press more vigorously when the red light came on. Their behaviour was object-regulated. Older children were able to carry out the pressing activity and follow the instructions only when another person told them when to press and when to stop doing it; therefore, they were other-regulated. Still older children managed to press correctly by instructing themselves orally when to do it and when not to do it. The oldest children in the

experiment were able to regulate their behaviour without having to resort to any kind of verbal instruction, and thus, were found to be self-regulated. The different stages of regulation described here can be considered different levels of cognitive development. Vygotsky states that “in the initial phase reliance upon external signs is crucial to the child’s efforts. But through development these operations undergo radical changes: the entire operation of mediated activity (for example, memorizing) begins to take place as a purely internal process” (pp. 55-56).

Self-regulated activity is tightly connected to another important concept of SCT: *internalization*. According to Vygotsky (1978), higher psychological functions appear twice. Consequently, mental development starts on the inter-psychological plane among individuals and later moves into the intra-psychological plane within individuals. Higher mental processes are anchored in social activity and formed through the process of *internalization*. Vygotsky defines internalization as the “internal reconstruction of an external operation” (p. 56), in which culturally-based activities and psychological processes are reconstructed due to a long series of developmental events. Along similar lines, Lantolf (2000) terms internalization “the process through which higher forms of mentation come to be” (p. 13). The author also argues that mental activity is not free of mediational support when higher mental processes are internalized since that support becomes internally situated.

The transformation of sign operations also occurs in language. Contrary to other views which do not stress the importance of speech, Vygotsky (1978) assigns speech a specific organizing function that leads to new forms of behaviour. According to Vygotsky, speech plays two important roles: 1) speech and action are part of the same complex psychological process that the child deploys to attain a goal; 2) when a task increases in complexity, speech use increases and becomes a fundamental aid to fulfil a goal. Different stages can be identified regarding speech development. When young children engage in different practical activities, speech accompanies action. Egocentric speech emerges as the child asks and answers questions himself/herself, instructs himself/herself on who to proceed, among other things. Lantolf (2000) terms this kind of talk *private speech* and describes it as “half of a dialogue between individuals with a close relationship” (p. 15). At later stages, speech acquires a planning function and starts to precede action; it guides and determines future action. Vygotsky considers egocentric speech to be part of communicative speech; therefore, it is connected to the social world. To illustrate this fact, the psychologist mentions that children who

experience difficulty fulfilling a task turn to an adult for help. At later stages, private speech evolves into *inner speech*. Children resort to themselves to carry out the tasks once language has been internalized. These significant developmental changes mentioned before contribute to reshaping the child's psychological field radically (Vygostky, 1978) and higher mental processes emerge on the intra-mental plane.

Socio-cultural theory provides a detailed account of the interrelationship between learning and development. Vygostky (1978) contended that psychometric tests only reflected the learners' current developmental level and disregarded their potential abilities. SCT distinguishes two developmental levels. The *actual developmental level* refers to the individual's mental functions that are already completed or matured. In other words, it includes those abilities that enable the individuals to perform activities on their own without any help. However, an individual's mental development is also indicated by those abilities that are under the process of maturation and that enable individuals to achieve different learning goals with the assistance of others. This stage is called the *potential developmental level*. The child is conceived of as an integrated whole of relationships that comprise developed and developing higher mental functions acquired through collaboration (Chaiklin, 2003). Vygostky introduced the core concept of the *zone of proximal development (ZPD)* and defined it as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86). For him, two children who have the same developmental level as determined by IQ tests might have different ZPD. Having a larger or smaller ZPD can be considered indicative of the learner's maturing functions which lie beyond unassisted performance, but still within his/her ZPD. This key construct helps explain how learning can foster qualitative developmental changes (Lantolf & Thorne, 2006). Therefore, from a Vygostkian perspective learning is in advance of development as the former triggers different developmental processes when the individuals interact with experts or more capable peers in their environment. According to Kozulin (2004), educational processes are the source rather than the consequence of cognitive development. The researcher argues that concept formation of curricular content in formal classroom settings shapes the learners' cognition as opposed to other learning theories that conceive of cognition as a pre-existent skill. Co-constructed knowledge and abilities become internalized and new zones of proximal

development emerge. Chaiklin states that the ZPD is not a fixed feature as it evolves across age periods and constitutes a potential for learning (Wells, 1999).

The ZPD has significant implications for teaching and learning. What learners can do with the help of a more capable person can be more useful in understanding their mental development since these abilities that are currently in maturation are the ones the individual will have developed in the future. Vygostky (1978) calls for diagnostic procedures to ground the teachers' pedagogical interventions and assess the learners' ZPD by determining maturing functions. In his review of Vygostky's intervention techniques, Chaiklin (2003) identifies the following ones: demonstrating, beginning the task solution and asking the child to finish it, asking the child to work with a more developed peer, explaining the principle of solving the problem, asking leading questions, and analyzing the problem for the child. Therefore, in classroom settings teachers can play a key role in guiding the learners' course of learning and, thus, development by drawing on their existing capabilities and creating the appropriate conditions for learning (Lantolf & Thorne, 2006). Vygostky points out that "the actual developmental level characterizes mental development retrospectively, while the zone of proximal development characterizes mental development prospectively" (pp. 86-87). Consequently, several researchers conceive of the ZPD as the *collaborative construction of opportunities* (Lantolf, 2000) or *affordances* (van Lier, as cited in Lantolf, 2000).

Collaborative work in the learners' zones of proximal development sometimes involves learners in imitating the more capable person. SCT argues in favor of the role of imitation in learning and development. Advocators of SCT suggest that imitation does not merely imply copying but transforming and appropriating what the experts do and/or say since learners can only imitate what lies within the boundaries of their ZPD. Chaiklin (2003) points out that imitation is possible because "(a) maturing psychological functions are still insufficient to support independent performance but (b) have developed sufficiently so that (c) a person can understand how to use collaborative actions (e.g. leading questions, demonstrations) from another" (p. 48).

The construct of the zone of proximal development has also been applied in teacher education. Warford (2011) introduced the zone of proximal teacher development (ZPTD) to define the "distance between what teaching candidates can do on their own without assistance and a proximal level they might attain through strategically mediated assistance from more capable others (i.e. methods instructor or

supervisor)” (p. 253). The ZPTD is grounded on the assumption that teacher development and education is a situated learning process in which there is a constant interplay between the student-teachers’ prior knowledge and experiences as learners, the pedagogical content of the teacher education programme and the knowledge gained through field placement. Warford claims that a Vygostkian perspective of teacher education seeks to weave “expert and experiential knowledge into personal narratives” (ibid). Due to the fact that the student-teachers’ cognitions are interspersed with prior experiences of teaching and learning, the ZPTD requires student-teachers to start with a *self-assistance* stage to later move into an *expert-other assistance* stage. This reversal of the original stages of cognitive development proposed by Vygostky stems from the need to unveil student-teachers’ embedded cognitions through self-reflective practice. It also serves as a diagnostic tool to determine the prospective teachers’ ZPD. Once they become aware of their existing beliefs, they are able to confront them with received and experiential knowledge. Two other stages follow, namely: *internalization* and *recursion*. At the former stage, student-teachers put all the knowledge gained into practice through teaching practice and post lesson writing, for example, whereas at the latter, they retrace the previous stages of the ZPTD. These stages of the ZPTD define the teacher development and education process as situated practice in which prior experiences, university-based and school-based knowledge and skills engage in dialogue.

From a sociocultural perspective, learning occurs as a socially mediated process among experts and novices, which progressively moves to internal control and transforms the self and the learning activity itself (Johnson, 2006). It follows then that the ZPD is the site where mediation takes place. In classroom settings, teachers and more capable peers provide assistance within the learners’ ZPD. Cazden (1979, as cited in van de Pol et al., 2011) related the ZPD to scaffolding for the first time. Several researchers have supported this claim (see Collins, 2006; Dennen, 2004; Mercer & Fisher, 1992, Stone 1998a). However, Lantolf and Thorne (2006) contend that equating the ZPD and scaffolding is a misconception since scaffolding focuses on the amount of assisted guidance for the completion of a given task, whereas the ZPD centres on the quality of the assistance provided and the ultimate aim is to cater for cognitive development. In a similar vein, Chaiklin (2003) points out that another term such as scaffolding should be used instead of ZPD to refer to activities such as teaching a subject-matter or skills unless there is evidence of an underlying developmental theory.

2.3 Scaffolding

Wood et al. (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)

It can, therefore, be assumed from Wood *et al.*’s definition that scaffolding occurs in one-to-one situations between parents and children. However, Cazden (1979, as cited in Stone 1998a) extended the use of scaffolding to the context of teacher-students interactions. Donato (1994) contends that research on scaffolding has drawn considerable attention to knower-non knower unidirectional interactions, so he expanded the notion of scaffolding to encompass collaborative learning in groups as well, a process which he referred to as *collective scaffolding*. In his study of peer scaffolding in an L2 collaborative planning task, he concluded that learners are capable of providing adequate assistance to their peers in order to complete a task. The principle that individual knowledge is social and dialogical in origin was also confirmed as evidence of individual linguistic development was observed at later stages when the scaffolded help had already been removed. In addition, not only was the learner who requested scaffolded help affected in a positive manner but also other peripheral participants. Donato calls for upholding the role of learners as sources of knowledge in the social context. This claim is also supported by Rogoff (1990, as cited in Stone, 1998a) who views peers as valuable sources of learning. Wells (1999), however, questions the assistance that peers offer to each other when completing a task. The scholar points out that Wood et al.’s definition of scaffolding implies a) a difference in expertise, b) a teaching function, and c) the intention to hand over control of the task to the learner (Mercer, 1995, as cited in Wells, 1999). Consequently, he contends that collaborative work such as a joint L2 writing task can be best considered “collaborative problem-solving” (p. 250) rather than scaffolding.

Scaffolding has taken different forms and been defined under different terms. Wood et al. (1976) identified six scaffolding functions in order to elaborate a theory of

instruction. These functions included: *recruitment* of the learners' interest so that they get involved in problem-solving; *reduction in degrees of freedom* by simplifying the parts of the task; *direction maintenance* to focus the learners' attention so that they fulfil the stated goal; *marking critical features* or accentuating those features that are necessary for task completion; *frustration control* to address the learners' affective needs; and *demonstration* or modelling. These functions included perceptual, cognitive and affective components (Stone, 1998a). Along similar lines, Tharp and Gallimore (1988) conceived of teaching as assisted performance and described seven means of assistance, namely: *modelling*, *feeding back*, *contingency management*, *directing*, *questioning*, *explaining* and *task structuring*. Scaffolding has also been extensively researched in the field of cognitive apprenticeship (CA) (Collins, 2006; Collins, Brown, & Newman, 1989; Dennen, 2004; Dennen & Burner, 2008), which encompasses "learning through guided experience on cognitive and metacognitive, rather than physical skills and processes" (Collins et al., 1989, p. 456). CA advocates scaffolding as a teaching method at the initial stages of CA when learners start being apprenticed through observation and guided practice. In sum, scaffolding seems to be used in different fields, sometimes with shared and sometimes with contrasting characteristics.

The review of the literature regarding the scaffolding classifications mentioned above does not account for the effectiveness of one function over the others. The concern of whether different forms of scaffolding should be used in isolation or in combination with one another has been raised by some researchers. For example, Puntambekar and Kolodner (1998; 2005) introduced the concept of *distributed scaffolding*. Its underlying assumption is that different learners have different ZPD, so in the classroom multiple and interacting forms of scaffolding strategies need to be devised and/or deployed by teachers in order to meet these learners' needs effectively. These researchers make heavy claims on the need for an "evolved notion of scaffolding, one that takes into consideration the multiple ZPDs in the classroom and provides support so that each student can follow his or her own investigation path" (p. 213). A related concept is discussed by Tabak (2004), who introduced *synergistic scaffolds* to refer to the "multiple co-occurring and interacting supports for the same need" (p. 307). The scholar found that providing support at the same time by multiple means or systems of scaffolds had a greater impact on learners since the interaction between the different forms of assistance was greater than the sum of the parts.

As it can be seen from the conceptualizations mentioned before, the original construct of scaffolding as conceived of by Wood et al. (1976) has evolved to integrate a multiplicity of perspectives. In Wood et al.'s research study, some features of the scaffolding process emerged. First, the adult or expert-other is placed at the centre of the instructional process. Second, effective tutoring requires the tutor to develop both a theory of the task and of the learner. The former involves knowledge of how the task is to be carried out, whereas the latter comprises knowledge of the learners' characteristics. Although the concept of contingency is not explicitly mentioned in the study, the scholars imply that the adult is able to adjust his/her support to the learners' needs by drawing on this knowledge. 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. Similar descriptions of scaffolding are provided by Palincsar and Brown (1984, as cited in Stone, 1998a) and Puntambekar and Kolodner (2005). It must be noted, however, that these researchers also include teacher-student dialogic interactions as a crucial component of scaffolding, and thus bring the interactive nature of scaffolding into the discussion. Several researchers (e.g. Stone, 1998a, 1998b; Tharp & Gallimore, 1991; Wertsch, 1979) embrace the role of dialogue to scaffold students' learning. As a result, the learners are viewed from a different perspective as far as it can be inferred from these definitions since they are expected to play a more active role. Stone (1998a, 1998b) argues in favour of an enriched metaphor of scaffolding, one which stresses and takes into account the learners' linguistic, cognitive, social as well as affective engagement in the adult-learner interactions. According to Dennen (2004), scaffolding is a learner-centred strategy based on the learners' current ability and interest and tailored to meet their cognitive and affective needs when carrying out a task. All in all, the scaffolding metaphor still bears the hallmarks of Wood et al.'s original ideas, but we have come to understand it as a "complex social process of communicational exchange and conceptual reorganization through which knowledgeable others foster new understandings and capabilities" (Stone, 1998a, p. 354).

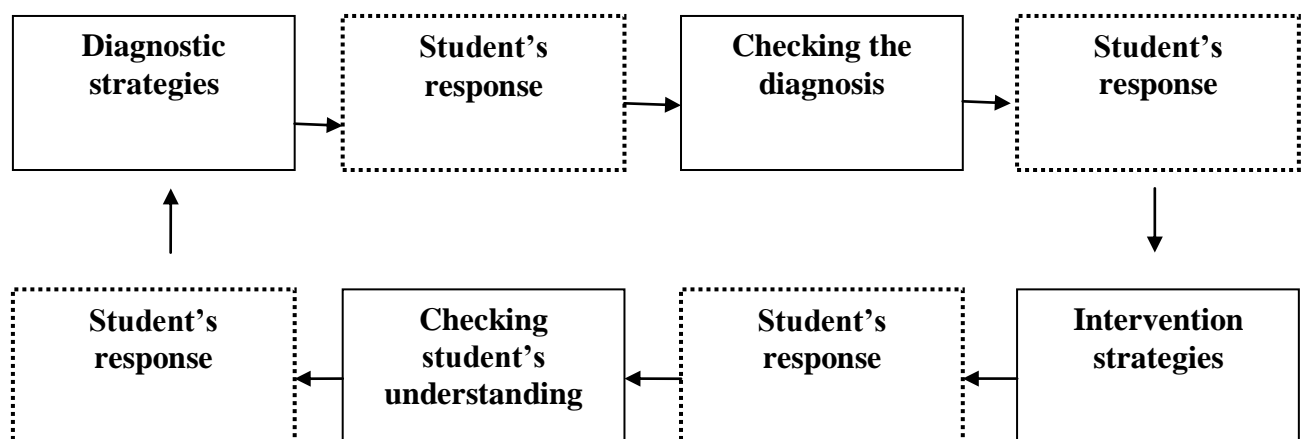
Within the context of the present study, scaffolding is conceived of as the support a teacher gives to a learner when carrying out a task, which he/she would not be

able to accomplish on his/her own (van de Pol et al., 2010). These researchers claim that scaffolding does not merely imply providing support or scaffolding 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.

2.3.1 Model of Contingent Teaching

The Model of Contingent Teaching (MCT; Figure 2.2) devised by van de Pol et al. (2014) serves as an instrument to describe the process of scaffolding in qualitative terms. The MCT consists of four steps: 1) diagnostic strategies, 2) checking the diagnosis; 3) intervention strategies and 4) checking student's learning. These steps uphold the interactive nature of scaffolding since each teacher's turn is determined by a student's turn.

Figure 2.2 – Model of Contingent Teaching



Note. Reprinted from “Teacher scaffolding in small-group work: An intervention study”, by J. van de Pol, M. Volman, F. Oort and J. Beishuizen, 2014, *Journal of the Learning Sciences*, 23(4), p. 605.

A step 1 - a diagnostic strategy – aims to gain insights into the student’s level of understanding. In the MCT, it is realized by a) posing a diagnostic question or b) reading the student’s work. A turn is an example of a step 2 – checking the diagnosis – if the teacher attempts to check whether he/she understood the student in the correct way. The purpose of this phase is to create shared understanding or intersubjectivity (van de Pol et al., 2011) and is expected to provide a more solid foundation for the teacher to tailor the support the students require. Checking the diagnosis is realized by a) summarizing and/or paraphrasing what a student has said; and b) asking the student whether something is correct. A step 3 – intervention strategy – involves actual support or help given to the student. These researchers list the following means: a) feedback; b) hints; c) instructing; d) explaining; e) modelling; f) questioning; or g) a miscellaneous strategy. Finally, a turn is an example of a step 4 – checking student’s understanding – when the teacher tries to find out the student’s new understandings after offering support. This function is usually realized by different types of questions. The realizations of each step (1 to 4) are summarized in Table 2.1.

Table 2.1 – Realizations of Steps 1 to 4

STEP 1	STEP 2	STEP 3	STEP 4
<ul style="list-style-type: none"> ▪ Posing a diagnostic question ▪ Reading the student’s work 	<ul style="list-style-type: none"> ▪ Summarizing and/or paraphrasing what a student has said ▪ Asking the student whether something is correct 	<ul style="list-style-type: none"> ▪ Feedback ▪ Hints ▪ Instructing ▪ Explaining ▪ Modelling ▪ Questioning ▪ Miscellaneous 	<ul style="list-style-type: none"> ▪ Questions

According to the MCT, making use of diagnostic strategies is a pre-requisite for contingent support. Van de Pol et al. (2014) include another criterion: *contingency uptake*, which is defined as the extent to which a teacher incorporates (i.e. takes up) what a student has said before in the same interaction fragment by a) eliciting an elaboration and/or explanation of what the student has just said or b) providing an explanation for or elaborating on what the teacher has just said. Non-contingent uptake

is illustrated by cases in which the teacher a) only acknowledges the student's contribution, b) repeats what the student has said or c) evaluates the student's response. In this research study, however, another criterion was developed to analyze contingency. Its operationalization and underlying reasons are found in section 3.5.4.1 in chapter 3.

2.3.2 Diagnostic strategies

As mentioned above, the MCT describes the diagnostic strategies in terms of their realizations. Van de Pol et al. (2012) analyzed only two realizations: a) *posing a diagnostic question* and b) *reading the student's work*. In the context of the tutoring sessions analyzed here, *posing a diagnostic question* refers to questions that the supervisor asked in order to determine the student-teachers' current level of understanding whereas *reading the student's work* refers to the instances in which the supervisor read the lesson plan devised by the student-teacher in order to get to know the activities chosen, the procedures followed, among other aspects, as well as the decisions behind lesson planning. However, different tasks may lend themselves to other kinds of diagnostic strategies. In the analysis carried out here two other analytic categories of diagnostic strategies were included: c) *listening to the student-teacher's explanations / choices* and d) *diagnostic prompts*. They are further explained in section 3.5.4.2 in chapter 3.

The quality of the diagnostic strategies is also important since the information teachers manage to gather from students can help the former make informed decisions about the most appropriate kind and amount of scaffolded help that a student may require. For example, van de Pol et al. (2014) state that open diagnostic questions that elicit demonstrations of understanding rather than mere claims of understanding "provoke deeper reasoning and could therefore be considered to be of higher quality" (p. 4). In their study, these researchers analyzed whether the diagnostic strategies elicited a claim or a demonstration of understanding. Another useful research strategy is to analyze diagnostic strategies with a focus on the type of response they elicit from the students. Gallagher and Aschner (1963), drawing on Guilford's model (1956) of convergent and divergent thinking processes which make up the structure of the intellect, developed a taxonomy to analyze the thought level that a teacher's question requires. They drew a distinction between lower and higher levels of thinking. From this

perspective, convergent questions, which are considered lower level, have only one correct answer and divergent questions, which are considered higher level, have many possible answers and encourage learners to express their views, opinions and alternatives. This model also divides convergent and divergent questions into different levels of cognitive processing. Even though Gallagher and Aschner's classification only analyzes question types, it can be easily adapted to the examination of diagnostic strategies in general bearing in mind the response the student has to produce. In the context of this study, diagnostic strategies which elicited a convergent response sought, for example, to make the student-teachers define terms, provide examples, classify activities, among others whereas the ones which fostered a divergent response encouraged them to justify their choices, analyze and provide alternatives, give opinions, among others.

The quality of diagnostic strategies can also be examined by analyzing the cognitive processing they foster. Bloom's taxonomy (Bloom, Englehart, Furst, Hill, & Krathwohl, 1956) identified six thinking processes which comprised six cognitive levels of increasing complexity. The taxonomy is hierarchical since climbing to a higher level of thinking and learning implies having mastered prior skills. Woolfolk, Winne and Perry (2003) established links between question types and Bloom's taxonomy. These researchers contend that convergent questions involve the three lower cognitive levels (knowledge, comprehension and application) whereas divergent questions encompass the three higher levels (analysis, synthesis and evaluation). From the lowest to the highest complexity, the Revised Bloom's taxonomy (Forehand, 2005) refers to these levels of cognitive processing as: a) remembering, b) understanding, c) applying, d) analyzing, e) evaluating and f) creating. The definitions of each level provided by Anderson and Krathwohl (2001, p.67-68, as cited in Forehand, 2005) are shown in Table 2.2 along with samples verbs and activities suitable for the context of this research.

Table 2.2 – Revised Bloom’s taxonomy

Cognitive level	Definition	Sample verbs	Sample activities
Remembering	Retrieving, recognizing, and recalling relevant knowledge from long-term memory	Identify, label, list, recall, reproduce, match, recognize	Student-teachers define the types of practice activities
Understanding	Constructing meaning from oral, written, and graphic messages	Interpret, exemplify, classify, summarize, infer, compare, explain	Student-teachers classify activities according to their types
Applying	Carrying out or using a procedure	Execute, implement, calculate, experiment, solve, demonstrate	Student-teachers demonstrate how they would give instructions for a given activity
Analyzing	Breaking material into constituent parts, determining how the parts relate to one another and to an overall structure or purpose	Differentiate, organize, attribute, order, distinguish, question, relate	Student-teachers explain how the activities chosen help attain the overall aim of the lesson
Evaluating	Making judgments based on criteria and standards	Critique, rank, assess, conclude, recommend, rate, estimate	Student-teachers self-assess their use of the L1 in the lesson
Creating	Putting elements together to form a coherent or functional whole; reorganizing elements into a new pattern or structure	Generate, plan, produce, combine, compose, design, devise, develop, formulate	Student-teachers introduce changes to make a lesson more effective

Note. Samples activities have been modified in order to reflect practicum-related ones. Adapted from “Bloom et al.’s taxonomy of the cognitive domain”, by W. Huit, 2011, *Educational Psychology Interactive*, Valdosta, GA, Valdosta State University. Retrieved from <http://www.edpsycinteractive.org/topics/cognition/bloom.html>.

2.3.3 Checking the diagnosis

From the perspective of the MCT, strategies which aim to check the teacher’s understanding of his/her diagnosis can have two possible realizations: *summarizing and/or paraphrasing what a student has said* and *asking the student whether something is correct*. The data-led procedure followed in the present study did not identify other realizations in the corpus. In the one-to-one tutoring sessions *summarizing and/or paraphrasing what a student has said* makes reference to cases in which the supervisor restated the student-teachers’ explanations and justifications, for example, as a way of

making sure that she had diagnosed their level of understanding correctly. As regards *asking the student whether something is correct*, this strategy consisted in asking a question which summarized the information provided by the student-teachers in order to check that the supervisor had understood that information in the same way the student-teachers had conveyed it.

2.3.4 Intervention strategies

The step 3 of the MCT involves the use of different intervention strategies. Helping and/or supporting others is a *sine qua non* for scaffolding. However, mere help does not necessarily amount to scaffolding. The analysis of intervention strategies contributes to examine how the teachers' help is realized and how much teacher intervention is exercised by the teacher. Regarding the actual intervention strategies, Van de Pol et al. (2010) in their review article elaborated on Wood et al.'s (1976) functions of scaffolding and Tharp and Gallimore's (1988) means of assisted performance and developed their own framework for the analysis of scaffolding. This framework encompasses the following intervention strategies: feedback, hints, instructing, explaining, modelling, questioning and miscellaneous. Table 2.3 provides a definition of each means of support as well as examples taken from the corpus (in bold). The dynamics of the tutoring sessions, however, have also revealed other means of help and/or assistance. In the analysis carried out here two other analytic categories of intervention strategies were included: *providing alternatives* and *giving opinions*. They are further explained and illustrated in Table 3.2 in chapter 3.

Table 2.3 – Definitions and examples of the intervention strategies

Intervention strategies	Definition	Examples
Feedback	Evaluation of how the learners performed in a task (e.g. lesson planning, teaching a lesson, among others)	“ Eso sería un hermoso lead-in para el reading ”
Hints	Clues, tips and/or suggestions to help the learners complete a task without giving full answers and/or explanations.	“So that will take 15 minutes, it might take a little bit longer maybe ”
Instructing	Telling the learners what to do.	“ you have to check whether they know the meaning of tomorrow ”
Explaining	Full explanations or clarifications, sometimes	“please change this because it's a

	involving an answer to <i>why</i> and/or <i>what for</i> questions	different situation, the meaning is different
Modelling	Demonstrating the learners' expected performance (e.g. the language to give instructions, check an activity, among others)	"Why don't you try with <i>have you seen the movie?</i> , <i>have you seen anything interesting lately?</i> "
Questioning	Questions for learners to come up with their own answers and/or solutions to the task.	"Then why not try a little bit of English even in the instructions? What do you think? "
Miscellaneous		" Hopefully they will be able to do it "

Note. The examples provided both in the definitions and the examples columns reflect practicum-related subject matter. Adapted from "Patterns of contingent teaching in teacher-student interaction", by J. van de Pol, M. Volman, and J. Beishuizen, 2011, *Learning and Instruction*, 21(1), p. 56.

2.3.5 Checking the student's understanding

Step 4 of the MCT aims to outline strategies that the teachers make use of so as to check the student's understanding after helping them. This function is usually realized by different types of questions which teachers resort to in order to find out if his/her help has led to new understandings.

2.3.6 The Contingent Shift Framework

The Contingent Shift Framework (CSF) (van de Pol et al., 2012, based on Wood et al., 1978) is a useful instrument to measure scaffolding at a micro-level. It is concerned with adapting the degree of control exercised by a teacher to the level of understanding demonstrated by the student. The unit of analysis is a three-turn sequence, consisting of a teacher's turn, a student's turn, and the following teacher's turn. Since this instrument measures the contingency of a teacher's support, at least one of the teacher's turns has to be a step 3 turn (intervention strategy). The teacher can exercise different degrees of control (TDc), ranging from TDc0 (no control) to TDc5 (highest control). Table 2.4 shows the operational definitions of each code. Likewise, all the students can exhibit different levels of understanding (SU). Table 2.5 presents the codes for levels of student understanding. From the perspective of CSF, contingency is determined on the following grounds: when the learner fails, increase control; when the learner succeeds, decrease control. The contingency rules stated by the CSF are shown in Table 2.6.

Table 2.4 – Teacher Degree of Control (TDc)

Category	Definition	Code
No control	Teacher absent	TDc0
Lowest	The teacher <ul style="list-style-type: none"> • Provides no new content • Elicits an elaborate response • Asks a broad and open question e.g., Why do these three concepts together?	TDc1
Low	The teacher TDc2 <ul style="list-style-type: none"> • Provides no new content • Elicits an elaborate response, mostly for an elaboration or explanation of something (“why” questions) • Asks a more detailed but still open question e.g., What do you think internal market means?	TDc2
Medium	The teacher TDc3 <ul style="list-style-type: none"> • Provides no new content • Elicits a short response (yes/no or choice) e.g., What came first, the European Union or the European Coal and Steel Community?	TDc3
High	The teacher TDc4 <ul style="list-style-type: none"> • Provides new content • Elicits a response • Gives a hint or suggestive question e.g., (When talking about the meaning of internal market): Think about trade.	TDc4
Highest	The teacher TDc5 <ul style="list-style-type: none"> • Provides new content • Elicits <i>no</i> response • Gives an explanation or the answer to a question e.g., Internal market means free traffic of goods, people, and services.	TDc5

Note. Reprinted from “Teacher scaffolding in small-group work: An intervention study”, by J. van de Pol, M. Volman, F. Oort and J. Beishuizen, 2014, *Journal of the Learning Sciences*, 23(4), p. 649.

Table 2.5 – Student Understanding (SU)

Category	Definition	Code
Not on content	The student's turn is not on the subject matter (e.g., about the task, personal matters).	noc
No understanding can be determined	The student's turn is on the subject matter but no understanding can be determined because, for example, no reasons are given and more answers are possible; depending on the reason, the student does not finish his/her sentence; the student reads aloud from the book; etc.	nucd
Poor/no understanding	The student demonstrates or claims poor or no understanding, for example, what a student says is evaluated wrong by the teacher, the student is not able to formulate an answer (but makes an attempt), the student requests an explanation, etc.	nu
Partial understanding	The student demonstrates or claims partial understanding, for example, when the student omits a crucial part of what is considered the correct answer by the teacher.	pu
Good understanding	The student demonstrates or claims good understanding.	gu

Note. Adapted from “Teacher scaffolding in small-group work: An intervention study”, by J. van de Pol, M. Volman, F. Oort and J. Beishuizen, 2014, *Journal of the Learning Sciences*, 23(4), p. 650.

Table 2.6 – Contingency rules

	Three-turn sequence			Contingency
	Teacher turn 1	Student turn	Teacher turn 2	
First three-turn sequence	TDc0	SU0	TDc1 or TDc2	Contingent
		SU1		Contingent
		SU2		Non-contingent
Middle three-turn sequence	TDc1 to TDc4	SU0	More control than in turn 1	Contingent
		SU1		Contingent
		SU2		Non-contingent
	TDc2 to TDc5	SU0	Less control than in turn 1	Non-contingent
		SU1		Non-contingent
		SU2		Contingent
	TDc2 – TDc4	SU0	Same level of control as in turn 1	Non-contingent
		SU1		Contingent
		SU2		Non-contingent
	TDc5	SU0	TDc5	Contingent
		SU1		Contingent
		SU2		Non-contingent
	TDc1	SU0	TDc1	Non-contingent
		SU1		Contingent
		SU2		Contingent
Last three-turn sequence	TDc1 to TDc4	SU0	TDc0 (teacher ends interaction) or TDc1	Non-contingent
		SU1		Non-contingent
		SU2		Contingent

Teacher degree of control: TDc0: no control/support – TDc1: lowest control – TDc2: low control – TDc3: medium control – TDc4: high control – TDc5: highest control.
Student understanding: nued: no understanding can be determined – SU0 (no / poor understanding) – SU1 (partial understanding) – SU2 (good understanding).
Contingency control: Contingent – Non-contingent

Note. Adapted from “Teacher scaffolding in small-group work: An intervention study”, by J. van de Pol, M. Volman, F. Oort and J. Beishuizen, 2014, *Journal of the Learning Sciences*, 23(4), p. 647.

The two frameworks mentioned above – the MCT and the CSF – analyze scaffolding by focusing on different dimensions of the construct. MCT stresses the importance of making use of diagnostic strategies in order to gather information to provide contingent support. The kind and amount of help that a teacher decides to provide the students with should be based on diagnostic information to make sure that he / she is truly addressing the students’ learning needs. However, van de Pol et al. (2012) contend that “(e)ven if a teacher performs all steps in the model of contingent teaching, we cannot be sure whether the teacher is truly adapting his or her level of

control to the students' understanding" (p.6). The CSF complements the analysis of scaffolding by providing a micro-level foundation on which to decide what counts as scaffolding and what does not.

2.4 Conclusion of the chapter

This chapter has explained the main principles underlying this research study on scaffolding. In the first section, I briefly reviewed distinct conceptions of supervisory roles and skills and thus, distinguished prescriptive from collaborative roles and their associated skills. In the second section, I advanced some of the main principles of Sociocultural Theory, which provides the theoretical foundation for the key construct of scaffolding. In the third section, I elaborated on the evolving definition of scaffolding along with some analytical frameworks for describing and measuring it.

CHAPTER 3

METHODS

The following chapter describes the methodology that was employed in order to conduct the present investigation. I will first refer to the research approach and design. Then I will describe the context of the study, the participants, the data collection strategies and the data analysis procedures employed in this study. I will also discuss three key issues in carrying out research: validity and reliability, ethical considerations as well as my own role as a researcher.

3.1 Research approach and design

Research on scaffolding has grown steadily in the last two decades and has become rather mature, especially from a theoretical point of view. The literature review carried out by van de Pol et al. (2010) revealed that most studies conducted to study scaffolding were descriptive and used a Grounded Theory approach. Therefore, different characteristics of the scaffolding process and classifications of scaffolding strategies have been identified and developed. These researchers argue that:

Scaffolding researchers in the last decade mainly sought to observe and describe the classroom in order to get a grip on the process and appearances of scaffolding. This frequent use of such a bottom-up approach, which is most common in the scaffolding research of the last decade, indicates that this descriptive stage is the current stage of scaffolding research. Because of the many useful descriptions and classifications, we now have come to a point that we can study scaffolding in a more top-down manner by using the existing scaffolding literature. (p. 278)

Van de Pol et al. call for operationalizing scaffolding in keeping with the definition of the construct and its main three characteristics: contingency, fading and transfer of responsibility. Therefore, the present investigation aimed to study the scaffolding process in the one-to-one tutoring sessions between a practicum supervisor and student-teachers taking into account the methodological assumptions stated before. Consequently, it was concerned with exploring the teacher-students' ongoing interactions by resorting to the data-analysis instruments devised by van de Pol (2012).

Dörnyei (2007) defines qualitative research as research that involves collecting open-ended non-numerical data and analyzing it through non-statistical procedures. Bearing in mind the numerous characteristics of qualitative research identified by different scholars (Cresswell, 2003; Dörnyei, 2007; Hatch, 2002; Mackey & Gass, 2005) the present study is mainly framed within a qualitative methodology. To start with, the data sources were the audio recordings of the tutoring sessions the practicum supervisor held with all the student-teachers. The transcriptions of the ongoing interactions between these participants enabled me as a researcher to have access to rich and complex details which, in turn, catered for a rich description of the scaffolding process in the setting investigated. Secondly, the research setting itself involved a naturalistic kind of inquiry (Lincoln & Guba, 1985, as cited in Hatch, 2002) since scaffolding was studied in its naturally-occurring situation without manipulating any variables. According to Cresswell, the researcher goes to the research site without disturbing more than is necessary. Thirdly, studying the phenomenon in its natural context also contributed to understand scaffolding from an “insider perspective” (Dörnyei, 2007, p. 38). Finally, although the study comprised a thick description of the scaffolding process, I sought to go further into an interpretative stage by making personal meanings taking into account my role as researcher and my own personal biases and value stance as a practicum supervisor. The characteristics mentioned above define a more qualitative type of study.

Since this study aims to describe and measure scaffolding within a specific context and group of participants, it can be said to involve a case study design. Hatch (2002) and Dörnyei (2007) claim that case studies are defined by the study of bounded phenomena or specific units of analysis such as a person, a class, an institution or a social group. Mackey and Gass (2005) also point out that case studies allow for rich descriptions and contextualizations, which, in turn, unravel the complexities of the phenomena that are being researched. The interactions in which student-teacher’s learning is scaffolded by the practicum supervisor during tutoring sessions in the context of an EFL Teacher Education programme is, therefore, the case or unit of analysis of the present work.

3.2 Context of the study

This study took place in the context of an EFL Teacher Education programme at a tertiary level Teacher Education College in Córdoba, Argentina. This four-year-programme allows undergraduates to earn certification as EFL teachers at pre-school, primary and secondary school levels. The programme comprises an *instructional component*, consisting of twenty-nine compulsory courses, and a *practicum component*, involving three practica at three education levels. The former component offers instruction in these areas: English language, culture of English-speaking countries and Pedagogy and Teaching Methodology. Student-teachers start taking the pedagogically-oriented courses early in their course of study as soon as they enter college. In addition, they are required to gain experience through fieldwork at local state and private schools. In the second year of their course of study, student-teachers undertake their first Practicum in the context of EFL teaching to children attending pre-school. In their third year, they do teaching practice at primary school level. Finally, during the fourth and last year of the programme, they carry out the third Practicum, which involves teaching adolescents who are learning EFL at secondary schools.

The present investigation was carried out in the context of the 4th year Practicum. During the first semester, student-teachers attend lessons taught by the practicum supervisor in which they deal with different teaching techniques and procedures that can be employed when teaching adolescents. They are also required to observe lessons at secondary schools and write reports. During the second semester, they are assigned one course either at a state or a private secondary school. The practicum comprises both observing lessons taught by a graduate teacher and taking about ten practica in this assigned course. The practicum supervisor and the student-teachers meet regularly during one-to-one tutoring sessions and post-observation conferences. At the time of the 4th year Practicum, student-teachers were also taking a course in language teaching methodology, which focuses on the teaching of English to adolescents and teaching methods in general.

This study was particularly concerned with the one-to-one tutoring-sessions that the practicum supervisor held with student-teachers weekly as a course requirement. They met in order to discuss lesson plans, require assistance, comment on previously taught lessons and exchange views on changes made to the lesson plans after being suggested by the supervisor by email, among other issues. The underlying assumption

of these sessions is that each student-teacher requires a particular kind and amount of help to carry out the practicum. In other words, their developing knowledge and abilities lie within each student-teacher's ZPD and help them gradually attain the learning goal of teaching. The tutoring sessions were usually held in English or Spanish, and several times the participants switched languages throughout the whole interaction. When discussing the lesson plans, student-teachers were required to bring copies of the lesson plan, the activities designed or chosen, the materials to be used (e.g. coursebook) and explain their choices. The supervisor usually listened to them while reading the lesson plan and provided different types of help. In addition, the student-teachers raised issues for discussion, especially in relation to difficulties they had faced in the previous lessons or concerns they may have, which were triggered by their observation period.

3.3 Participants

One Practicum supervisor and ten student-teachers from the EFL Teacher Education programme at a tertiary level Teacher Education College in Córdoba, Argentina participated in the study. The supervisor is an EFL teacher who graduated at the School of Languages of Córdoba State University. She has 23 years of teaching experience and 20 years of experience as a coordinator of the English department at different private schools, where she has supervised in-service teachers. Furthermore, she has worked as a Practicum supervisor and a Methods teacher at the Teacher Education College for nine years. She supervises student-teachers during the three practica they do at the pre-school, primary and secondary school levels. Apart from that, she is currently working at a private school at these three levels as well. At the time of data collection, the practicum supervisor had already supervised and assessed all of the ten student-teachers during the practicum in the contexts of teaching English to kindergarten and primary school children, so she was well aware of their learning needs. The student-teachers were all 4th year students, who were undertaking the last practicum before majoring in TEFL. Their ages ranged from 21 to 55. While 3 of the pre-service teachers had considerable previous teaching experience, most of them lacked experience of teaching English.

Since this study is qualitative in nature, the number of participants was not an issue. Hatch (2002) argues that the number of participants does not necessarily relate to the quality of the study, but other issues such as the purpose of the study and the

research questions dictate the selection of the participants. The research described here was concerned with an in-depth exploration and analysis of the scaffolding process in the interactions between a practicum supervisor and pre-service teachers; consequently, the number of participants did not matter as much as the interactions themselves. I followed the *homogenous sampling strategy* (Patton, 1990, as cited in Hatch, 2002) since I intended to analyze the interactions between the supervisor and a group of participants who shared similar characteristics.

3.4 Data collection

3.4.1 Procedure followed to start data collection

The procedure for selecting the informants for the study involved three steps. I first contacted the director of the EFL Teacher Education programme in April 2013. During our first meeting, I explained to her the general purpose of the study and the procedure it involved. Then I had to send a note from my thesis advisor, who requested the director permission to conduct the investigation. Once permission was granted, as a second step the programme director asked the practicum supervisor whether she would be interested in participating in the study. Since she agreed to do it immediately, I was required to meet her in August 2013 when the practicum *per se* started. Finally, the practicum supervisor explained the purpose of the investigation to the 4th year student-teachers and invited them to participate in the study. All the informants agreed to participate voluntarily in the study. They were informed that the study was on tutoring sessions.

I provided the practicum supervisor with a digital recorder. We agreed that the supervisor would record the tutoring sessions she would hold with the student-teachers prior to each teaching practice. It was further agreed that I would not be present during the sessions to avoid influencing the participants' behaviour and be as little obtrusive as possible.

3.4.2 Data collection strategy: Audio recordings

All the one-to-one tutoring sessions between the supervisor and each student-teacher were audio-recorded. The supervisor was asked to hold them as usual and record the full interactions no matter what subject matter was being discussed. The use of the

audio-recordings allowed me to capture the scaffolding process in a naturally occurring situation, in which I was interested as a practicum supervisor and researcher. Furthermore, since the focus of the study was on the ongoing interactions between the participants, especially the ways in which they discussed different aspects of teaching practice and responded to each other's words and/or comments, the audio recordings provided me with accurate and detailed data about the complexities and subtleties of the phenomena studied. They also enabled me to get a verbatim account of everything that was said, listen to the conversations countless times and carry out macro and micro level-analysis.

A word must also be said about the limitations of using audio recordings. In this particular case, although it was agreed with the supervisor that the full interactions would be recorded, some parts might have been omitted since it was the supervisor who decided when to turn on the recorder and when to turn it off, so the recordings might not provide a fully accurate picture of the interactions. Moreover, the impact that recording the conversations might have had on the participants' behaviour should not be overlooked and, therefore, claims should be carefully made.

3.5 Data analysis

Data analysis comprised the three processes outlined by Miles and Huberman (1994) for qualitative data analysis: data reduction, data display and conclusion drawing/verification. Moreover, 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 (ibid) or the "template organizing style" (Cabtree & Miller, 1999, as cited in Dörnyei, 2007, p. 253) with a pre-established set of analytic categories to describe and measure scaffolding. The teacher-students' ongoing interactions in the one-to-one tutoring sessions were analyzed by resorting to the data-analysis instruments devised by van de Pol (2012). Nevertheless, I followed an open-ended data-led procedure and allowed newly conceived categories and/or theories to emerge and be included in the analysis.

3.5.1 Transcription conventions

The data from the audio recordings were first transcribed without deleting any parts in order not to make any judgments in advance and to get to know the information collected thoroughly (Dörnyei, 2007). As Atkinson and Heritage (1984, p.4, as cited in Eggins & Slade, 1997, p.1) point out “nothing that occurs in interaction can be ruled out, a priori, as random, insignificant or irrelevant.” Following Dörnyei, I adopted a “pick and mix procedure” (p. 248) to transcribe the data in order to fit my own research concerns (Mackey & Gass, 2005). The rationale for choosing certain conventions was: a focus on content and function as well as accessibility to readers. I added punctuation marks and deleted false starts, hesitation marks, fillers, unnecessary repetitions and backchannelling responses (Weiss, 1994). I checked the transcriptions for accuracy several times on later occasions. The transcription key is presented in Appendix A.

3.5.2 Selection of fragments

The data were read several times before I made a decision on what data to analyze and what criteria to establish for choosing fragments. The first criterion applied for selecting interaction fragments was *practicum* subject-matter. In other words, only those segments of the tutoring sessions in which the supervisor and the student-teachers discussed issues related to the different dimensions of teaching practice *per se* were analyzed. Segments concerning administrative and/or procedural issues were disregarded because they were not the focus of the research. In addition, segments which involved evaluative comments regarding different actors and/or institutions were omitted due to ethical considerations. Further criteria were adopted to divide each tutoring session into interaction fragments since each session comprised discussing several issues. A fragment was considered as such if it involved the *practicum* supervisor and the student-teacher talking about: 1) a stage of the lesson (e.g. presentation, practice, production, or skills-development), 2) a particular activity (e.g. a drill, a fill-in-the-blanks, a matching exercise, among others), or 3) a particular concern (difficulty or issue) regarding a previous lesson or the upcoming one (e.g. the use of names, discipline, seating arrangement, the use of the L1, among others). Since not all fragments included instances in which the *practicum* supervisor offered the student-teacher help regardless of whether it was required or not, another criterion was added.

For an interaction fragment to be included, the supervisor had to help the student-teacher by any specific means.

3.5.3 Memoing

I actively committed myself to memo writing right from the very beginning when I started to transcribe the audio recordings in order to engage with myself in conversation. I found memoing a useful technique to record my emerging ideas, recurrent patterns, relationships between concepts, even my own contradictions, which I was able to later explore and sort out. It helped me adopt a more reflective stance and draw the insights gained into the analysis and interpretation of the data.

3.5.4 Procedure

The first part of the analysis focused on a more qualitative and macro-level examination of the scaffolding process. It aimed to describe the steps the supervisor took to scaffold the student-teachers' learning as well as the means through which these steps were realized.

3.5.4.1 Model of Contingent Teaching

For each fragment, all teacher turns were coded bearing in mind the function they served in relation to the student-teacher's turns. They were coded as step 1, 2, 3 or 4 drawing on the MCT. A coded example is shown in Table 3.1. No examples of step 4 (checking student's understanding) were found in the data.

After coding all the supervisor's turns, the following step consisted in identifying the combinations of steps in each interaction fragment. For instance, if the supervisor only provided support (step 3) without diagnosing the student-teacher's understanding (step 1), the fragment was coded as 3. If support (step 3) followed information gathered through diagnostic strategies (step 1), the fragment was coded 13. After that, the frequency of occurrence of each combination found in the data set was determined.

To round off this section of the analysis on the basis of the MCT, all interaction fragments were coded for contingency, and thus, scaffolding. The analysis of

contingency uptake (van de Pol et al., 2014) as defined in section 2.3.1 in chapter 2 was not undertaken in the present work since its operationalization seemed to be rather elusive and prone to multiple interpretations. In particular, I expected this analysis to lead to inconsistencies which may not have truly reflected the scaffolding process. Therefore, another criterion was followed to define the contingency of the supervisor's help. A fragment was considered *contingent*, and consequently, a scaffolding example, if the supervisor first made use of a diagnostic strategy and then provided assistance which was tailored to meet the student-teacher's needs or level of understanding. A fragment was coded as *non-contingent*, and consequently, a non-scaffolding example if no diagnostic strategy was employed and immediate support was provided by the supervisor.

T: porque en 5 minutos a lo mejor lo podés hacer y ya la presentación ya vas a ir reciclando lo que ellos ya han revisado pero ahí ya empezás a introducir lo nuevo	3				Explaining	TDc 5		CC
S: y ¿lo puedo reforzar diciendo so <i>I am in front of the desk</i> ?							nu	
T: por supuesto, absolutamente, sí. Claro, pero eso es ya presentación, eso es algo nuevo, ellos no lo han escuchado, y si lo han escuchando, ha sido in a passive way.	3 3				Feedback Explaining	TDc 5		CC
S: sí, yo pensaba como tenía estas pictures, que está cada una de las preposiciones...							pu	
T: que sería lo que sigue, sí, genial	3				Feedback	TDc 5		CC
S: eso sería parte del presentation.							gu	
T: perfecto, pero a continuación de haber hablado, de ubicar acá los pets, seguimos con eso.	3 3				Feedback Instructing	TDc 5		NC C
S: lo que yo no sabía								
T: esto por ejemplo, este picture, ¿se los mostrás así?								
S: no, eso lo quiero recortar.								
T: ok, con razón, perfecto, pero esto va recortado, genial. No, porque si no, no sabía cuál era cuál, está.	3				Feedback	TDc 3		
S: eso sería a medida que vamos hablando, pero yo no sé, yo lo imprimí igual para pegarlas con los nombres o escribirlo yo igual, esto tienen que verlo por escrito una vez que...							gu	
T: claro una vez que ya lo presentaste y lo escucharon, lo ideal es que visualicen de lo que están hablando, claro, claro. Además fijate que justamente lo que hicimos fue plantear el contexto en el contexto de la casa porque si no, queda como una cosa suelta y después recién pasás a esto. Perfecto. Está muy bien, está muy bien contextualizado, tranquilamente podés escribirlas o =	3 3 3				Explaining Feedback			
S: claro para que ellos lo visualicen.								

T: =o otra posibilidad es escribir una de las oraciones <i>the cat is in the bath</i> acompañados de este picture, o sea que les quede bien claro. Bárbaro. Bueno, bien, esto es parte de lo que dijimos.	3 3				Providing alternatives Feedback	TDC 5		NC C
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Codes:

Steps: 1 (diagnostic question) – 2 (checking diagnosis) – 3 (intervention strategy) – 4 (checking student’s learning). **Diagnostic strategy:** question – reading – listening – prompt. **Response required (by diagnostic strategy):** c (convergent) – d (divergent) – nr (no response). **Cognitive level (by diagnostic strategy):** remembering – understanding – applying – analyzing – evaluating – creating. **Intervention strategy:** feedback – hints – instructing – explaining – modelling – questioning – providing alternatives – giving opinions – miscellaneous. **Teacher Degree of control (TDC):** TDC0: no control/support – TDC1: lowest control – TDC2: low control – TDC3: medium control – TDC4: high control – TDC5: highest control. **Student understanding (SU):** nu: no understanding can be determined – nu (no / poor understanding) – pu (partial understanding) – gu (good understanding). **Contingency control (CC):** CC (contingent control) – NCC (non-contingent control)

3.5.4.2 Diagnostic strategies

Firstly, all step 1 (diagnostic strategies) turns were classified according to their realization: a) *posing a diagnostic question*; b) *reading the student-teacher's work* (lesson plan); c) *listening to the student-teacher's explanations / choices* and d) *diagnostic prompts*. After a preliminary scanning of the data and due to the dynamics of the one-to-one tutoring sessions, the realizations **c** and **d** were added to the original two strategies (**a** and **b**) analyzed by van de Pol et al. (2012) and defined in section 2.3.2 in chapter 2. In the present corpus, *listening to the student-teacher's explanations / choices* is found in cases in which the student-teachers initiated the interactions themselves. Consequently, the supervisor listened to them while they were explaining their lesson plans and/or describing difficulties they had had, among others, in order to gather information about their level of understanding. In other cases, the supervisor initiated the interaction and made the student-teachers either start explaining their lesson plans or show it to her by means of a prompt. These prompts were usually realized by commands such as “contame” or requests as in “a ver.” The analysis also involved examining the number of different diagnostic strategies used per fragment as well as the number of combinations of diagnostic strategies per fragment. For example, the coded fragment in Table 3.1 included 1 instance of reading the student-teacher's work and 2 instances of posing a diagnostic question. Consequently, it was analyzed as consisting of 3 diagnostic strategies and a combination of 2 types of diagnostic strategies.

Secondly, the analysis of the quality of the diagnostic strategies comprised two steps. To start with, all the diagnostic strategies were classified into either convergent (c) or divergent (d), bearing in mind the type of response they elicited. Secondly, they were coded following the Revised Bloom's taxonomy (Forehand, 2005) so as to explore the complexity of the cognitive processing that the supervisor encouraged the student-teachers to engage in. Each diagnostic strategy was coded as a) remembering, b) understanding, c) applying, d) analyzing, e) evaluating or f) creating. A coded example is shown in Table 3.1. The frequencies of the types of diagnostic strategies, the types of responses elicited and the cognitive levels fostered were calculated.

3.5.4.3 Checking the diagnosis

All step 2 (checking the diagnosis) turns were classified according to their realization: a) *summarizing and/or paraphrasing what a student has said* and b) *asking the student whether something is correct* and their frequency of occurrence was calculated.

3.5.4.4 Intervention strategies

All step 3 turns were further explored to examine the type of support provided by the supervisor to the student-teachers. Turns were coded in accordance with the means for scaffolding described van de Pol et al. (2010) in the framework for the analysis of scaffolding strategies, namely: feedback, hints, instructing, explaining, modelling, questioning and miscellaneous, which were defined and illustrated in Table 2.3 in chapter 2. After multiple readings of the data, two intervention strategies were added to enhance the situated analysis of the scaffolding process in the context of the one-to-one tutoring sessions: *providing alternatives* and *giving opinions*. Definitions and examples taken from the corpus are given below in Table 3.2. Table 3.1 shows a coded example of intervention strategies. If a turn could not be classified into any of these eight categories, it was coded as miscellaneous. This part of the analysis aimed to establish possible links between scaffolding strategies and supervisory roles and skills.

Table 3.2 – Definitions and examples of other intervention strategies

Intervention strategies	Definition	Examples
Providing alternatives	Listing or mentioning examples of possible activities, techniques, procedures, among others to achieve a given goal.	“You check whether they have understood by looking at their faces , or remember that you can also demonstrate the first exercise in each of the..., the first example. ”
Giving opinions	Expressing views on appropriateness, suitability, usefulness, among others.	“ Sí, por los tiempos en este momento me parece que sería más que interesante ”

3.5.4.5 Checking the student's understanding

All step 4 (checking the student's understanding) turns were identified and their frequency of occurrence was calculated.

The first part of the analysis was grounded mainly on the MCT and focused on the steps the supervisor took to help the student-teachers, and therefore, scaffold their learning process as well as on the characteristics of each of the strategies the supervisor resorted to in each step. Therefore, the analysis was more qualitative and descriptive in nature.

3.5.4.6 The Contingent Shift Framework

The following phase of the analysis was concerned with micro-level analysis of the scaffolding process. Therefore, I decided to analyze only a sample of the whole data set. First of all, three-turn sequences were identified since they were the unit of analysis in the CSF. Secondly, all the supervisor's turns were coded for the degree of teacher control (TDc) from TDc0 (no control) to TDc5 (highest control) in accordance with the operational definitions presented in Table 2.3 in chapter 2. Thirdly, all the student's turns were coded for their level of understanding (SU) by drawing on the definitions provided in Table 2.4. Finally, every three-turn sequence was categorized for contingency (contingent vs. non-contingent), following the contingency rules stated in Table 2.5. A three-sequence turn was considered contingent when the supervisor increased control after the student-teacher produced an incorrect response and decreased control in reaction to a correct response by the student-teacher. A coded example can be found in Table 3.1.

3.6 Validity and reliability

In keeping with Creswell (2003), several steps were taken in order to create reader confidence in the accuracy of the findings. I resorted to the following strategies: *Methodological triangulation*: data analysis instruments were combined to provide readers with both a more general and macro-level description of the scaffolding process

and a more specific and micro-level analysis of scaffolding. Both the MCT and CSF enabled me as a researcher to look at scaffolding in the one-to-one tutoring sessions from different angles and achieve a more comprehensive understanding of the target phenomenon.

Rich and thick description: I attempted to provide full details of contextual aspects such as the setting and the participants as well as the procedures followed during data collection and data analysis. In describing the findings, I included several descriptions and examples to support the points I made.

Research context: a word must also be said about my current job. I have worked as a Practicum supervisor for four years at an EFL Teacher Education Programme at the School of Languages, Córdoba State University. Since this study was concerned with the practicum, I decided not to study my own research context so as to diminish the researcher's biases. Studying one's own context raises several concerns such as striking a balance between the educator and researcher roles and affecting the participants' performance during data collection (Hatch, 2002). That is why I carried research at a different higher education institution which offers an EFL Teacher Education programme and includes a practicum component.

Presenting negative or discrepant information: when describing the findings of the present work, I included not only major patterns observed in the data but also other less recurrent ones that did not necessarily fit the most important results. Presenting discrepant information contributed to depicting the situatedness of the scaffolding process.

Peer debriefing: a colleague who was conducting research in the field of Teacher Education reviewed the segmentation of the data into interaction fragments in accordance with the criteria set. We met to discuss the changes I planned to introduce to the data analysis categories and she provided me with her views and made useful suggestions regarding terminology. She also coded portions of the data for each of the phases that the data analysis involved. To enhance reliability, I also got in contact with Dr. van de Pol, who devised the different instruments used to analyze and measure scaffolding. Due to the context specificity of the research study, I asked her opinion about how to code the data using the MCT. She offered me invaluable insights regarding the coding of diagnostic strategies and contingency and suggested further readings.

3.7 Ethical considerations

The study described here involved a considerable degree of involvement and collaboration on the part of the informants. As Hatch (2002) points out: “we ask participants to reveal what goes on behind the scenes in their everyday lives” (p. 65). Consequently, several ethical considerations were taken into account.

All the participants as well as the director of the EFL Teacher Education programme were informed that the study was on the role of the tutoring sessions as a formative stage. They were also informed about the procedure involved for data collection. Exact details regarding the purpose of the study were not disclosed so as to avoid any participant bias. It was also agreed that the findings of the study would be shared with all the participants once it was finished.

All the informants agreed to participate voluntarily in the study. Once the supervisor and the student-teachers agreed to take part in the study, I met them to obtain written informed consent. Copies of the informed consents are presented in Appendixes B and C.

The participants' identities have remained anonymous throughout this work. I decided not to include any names to refer to the participants. Instead, they are identified by the letters **T** (i.e. the teacher or supervisor) and **S** (i.e. the students or pre-service teachers) in all the interactions included as part of the findings. It was not necessary to distinguish among the different student-teachers who participated since the study did not intend to compare them in any ways. 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.

3.8 Researcher's role

I have tried to give a detailed account of all the procedures I followed and the decisions I made in order to clarify my position as a researcher. In doing so, I listed all the steps I took to enter the research site, get in contact with the participants and request permission to conduct the study. I also discussed how I dealt with the issues of confidentiality and anonymity. Furthermore, I made explicit all the decisions I took by

writing memos and explaining and justifying the data analysis instruments. Cresswell (2003) warns against doing “backyard” research (Glesne & Peashkin, 1992, as cited in Cresswell, 2003) or, in other words, studying one’s own research context. Consequently, I decided to conduct research at a different institution so as to diminish the researcher’s biases.

3.9 Conclusion of the chapter

This chapter has presented the methodology on which the present research study was grounded. I have described the qualitative research approach and design as well as several contextual aspects such as the setting and the participants. I have also explained how data collection and analysis proceeded. This chapter has addressed the issues of validity and reliability, ethical concerns and the researcher’s role, all of which enhance the reader’s confidence in this research study.

CHAPTER 4

RESULTS

The results are presented in two sections. The first one describes the scaffolding process from a macro level perspective whereas the second one delves into micro level analysis. I begin this section by examining how the scaffolding process unfolded in the one-to-one interactions between the practicum supervisor and the student-teachers. To start with, I provide a descriptive account of the steps taken by the supervisor by drawing on the Model of Contingent Teaching (MCT) (van de Pol, et al., 2011). It must be noted that the steps identified in the supervisor's speech reflect the function they served in relation to the student-teacher's reactions and/or responses, thus depicting the interactive nature of scaffolding. To enrich the description, I delve into the characteristics of two of the steps: diagnostic strategies and intervention strategies by making reference to types and quality of strategies. In the second section of the results, I turn my attention to the degree of scaffolding provided by the practicum supervisor. On the basis of the Contingent Shift Framework (CSF) (van de Pol, et al., 2012, based on Wood et al., 1978), I provide evidence of the extent to which the supervisor managed to adapt her support to the student-teachers' level of understanding.

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. After applying the criteria stated in section 3.5.2 of the Method chapter, the sessions were further divided into 102 interaction fragments. All the student-teachers' turns were analyzed as a unit, so I did not distinguish among the different student-teachers.

4.1 Model of Contingent Teaching

4.1.1 Steps followed by the supervisor

The practicum supervisor was observed to start the one-to-one tutoring sessions in three different ways after greeting the student-teachers and engaging in small talk. In two of these ways, the supervisor initiated the interaction herself. She either started to read the student-teacher's lesson plan and made follow-up questions and/or comments

or encouraged the student-teachers to explain how they had planned their lessons, describe the activities, materials or procedures chosen, comment on and evaluate a previously-taught lesson, among others. The latter technique involved an explicit prompt on the part of the supervisor as the following examples illustrate:

Excerpt 1 (Session 2, fragment 5)

T: (asking the student-teacher to start explaining her lesson plan at the beginning of the tutoring session) What about you M-----?

Excerpt 2 (Session 4, fragment 19)

T: (prompting the student-teacher to start explaining her lesson plan at the beginning of the tutoring session) Contame de tu clase anterior

The third way of starting a tutoring session was characterized by the student-teachers themselves initiating the interaction. In these interaction fragments, the student-teachers began to talk about any aspect of the teaching practice of their choice. They were found to start describing their lesson plan right away or raise an issue or difficulty they had had regarding, for example, lesson planning or class management during the previous lesson. The following examples illustrate this:

Excerpt 3 (Session 14, fragment 57)

S: (before explaining a lesson plan) This would be my third Tuesday for the 6th class.

Excerpt 4 (Session 8, fragment 29)

S: (contextualizing the lesson planned) The thing is I have 120 minutes next Thursday, so it's a lot. Some of the kids actually got the meaning of *can can't* and the question, but some of them, they didn't, so I think.... and A----- [the cooperating teacher] told they need to cover *can* and then food.

The patterns of initiating interaction found in the data suggest an implicit agreement between the participants, in which each of them is equally entitled to put forth a topic for discussion. Regarding the ways in which a tutoring session ended, the supervisor mainly provided feedback and/or told the student-teacher what to do next. The following are examples of actual supervisor's turns used to end a session.

Excerpt 5 (Session 8, fragment 34)

S: (after discussing the activities and their sequencing) that would be it, I mean, for the last period.

T: and a good transfer. It's well-organized because you would be having the transfer part at the end.

S: yes, and I left this at the end because it's actually production, not just completing.

T: you've done a lot of practice, so I think this is fine.

S: yes.

Excerpt 6 (Session 13, fragment 55)

T: (after providing feedback) Bueno y de esto también después reformulalo, todo de acuerdo a lo que decidas porque si vas a incluir *family* y además te van a cambiar los subsidiary aims.

Bearing in mind the MCT, the four steps were identified in each interaction fragment (n= 102). Afterwards, all the interaction fragments were analyzed for cycles of contingent teaching (Table 4.1). No instances of step 4 (checking student's learning) were found in the whole data. The supervisor was found to use only incomplete cycles. *I3* cycles (n= 59, 58%), which consisted of step 1 (diagnostic strategies) and step 3 (intervention strategies) turns were the most frequent ones. *I23* cycles (n= 39, 38%) in which the supervisor made use of steps 1, 2 (checking the diagnosis) and 3 were also found but their frequency of occurrence was lower than that of *I3* cycles. Only four instances of *I3* cycles (n=4, 4%), which consisted of only a step 3 turn were observed.

Table 4.1 – Figures for teaching cycles

CYCLES	n	%
<i>13</i>	59	58
<i>123</i>	39	38
<i>3</i>	4	4
TOTAL	102	100

4.1.2 Contingency

In order to provide tailored assistance, a teacher needs to adjust his/her support to the student's current level of understanding. From the perspective of the MCT, this can be achieved by means of diagnostic strategies which enable the teacher to gather information and decide on the most appropriate kind and amount of help to provide the students with. All interaction fragments were coded for contingency, taking into account whether the supervisor helped the student-teachers after having diagnosed their understanding through at least one diagnostic strategy. Contingent cycles, in which the supervisor resorted to a diagnostic strategy before offering help, occurred most often ($n= 98, 96\%$). Due to the fact that the supervisor resorted to different diagnostic strategies in almost all the interactions analyzed, very few non-contingent cycles, in which the supervisor gave immediate support, were found ($n= 4, 4\%$). Table 4.2 shows the percentages of contingent and non-contingent teaching cycles.

Table 4.2 – Frequencies of contingent and non-contingent teaching cycles

CONTINGENCY	n	%
Contingent cycles	98	96
Non-contingent cycles	4	4
TOTAL	102	100

In most of the contingent interactions, the supervisor first diagnosed the student-teachers' level of understanding by means of different strategies; therefore, the support provided to aid their learning and understanding aimed to address the specific needs and/ difficulties the supervisor observed and/or the student-teacher expressed. In these cases, the teaching cycles were *I3*. On other occasions, the supervisor gathered some information about the student-teachers' understanding and further inquired the student-teacher in order to make sure that the assumptions she was making were accurate. In other words, the supervisor checked whether and/or to what extent her diagnosis was correct and/or reflected the student-teacher's true level of understanding. In these cases, the teaching cycles were *I23*. Resorting to a step 2 turn (checking diagnosis) enhanced the diagnostic phase and provided the supervisor with more precise information and, consequently, tools to give contingent support. Table 4.3 presents a contingent interaction fragment, which consisted of a *I23* cycle. This fragment appeared at the beginning of the tutoring session #13, so it depicts the exchanges that took place between the supervisor and one student-teacher regarding the starting point of a lesson plan. In this example, the supervisor prompted the student-teacher to explain the choices she had made for the upcoming lesson (step 1) and learnt in turn #2 that the student-teacher had to work with the structure *have got*. The information "hoy estaban repasando, ya lo vieron, están repasando" helped the supervisor assume that the student-teacher had planned a revision lesson. The supervisor's statement in turn #3 "o sea que vos no tenés que presentar nada nuevo" integrated this information and served to check whether her assumptions were correct (step 2). She restated the student-teacher's explanation by referring to the idea of *revision* as *not presenting a new topic*. The supervisor went on reading the lesson plan (step 1) to gain further insights into the student-teacher's decisions and this diagnostic activity was enhanced when the student-teacher showed and briefly explained to the supervisor the first activity she had chosen. The fact that the student-teacher had chosen a transformation exercise to start the lesson (turn #6) helped the supervisor identify the first weakness that the lesson plan had since it lacked a warming-up activity as the following supervisor's own words show: "You haven't included anything in, you just, it's like you get into the classroom and say *ok, hello, open the books*." The different instances of support (step 3) which follow in the interaction (turns #7, 11, 13, 15, 17, 19, 21, 23 and 25) stemmed from this perceived weakness and aimed to address it. Turns #7, 11, 13 and 15 helped the student-teacher first think about including a warming-up activity and then consider the underlying

reasons and a possible alternative. In turns #16, 18 and 20, the student-teacher came up with her own activity to start the lesson: describing the Monsters Inc. and/or asking questions about them to the students. Then, the supervisor specifically helped the student-teacher as regards this activity as it can be seen in turns #17, 19, 21, 23 and 25. This interaction fragment can be considered contingent since the help and support the supervisor gave was intrinsically linked to a particular weakness she had spotted.

Table 4.3 - Contingent interaction fragment (Session 13, fragment 53)

	Step	Diagnostic strategy	Response required	Cognitive level	Intervention strategy
(1)T: si contame	1	Prompt	d	Creating	
(2) S: entonces están viendo <i>have got</i> , entonces yo pensé que como lo primero, hoy estaban repasando, ya lo vieron, están repasando.					
(3)T: o sea que vos no tenés que presentar nada nuevo.	2				
(4)S: no, nada.					
(5)T: (T is reading)	1	Reading	nr	-----	
(6)S: entonces, this is the exercise. They have to complete with the negative form or the other way around (?). I have problems with the timing.					
(7)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?	3				Questioning
(8)S: to be honest I did it so quickly.					
(9)T: because I think you...					
(10)S: I'm going to come tomorrow, so that's why I wanted you to correct some things.					
(11)T: I'd suggest you include a warming-up, especially because	3				Instructing

<p>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, claro, hacés el warming-up y recién pasás acá.</p>	3 3				<p>Explaining</p> <p>Giving opinions</p>
<p>(12)S: claro como para entrar en...</p>					
<p>(13)T: porque además que no vas a estar segura si realmente se acuerdan o no, el warming-up te puede de pronto servir para chequear eso, cómo están ellos con ese tema, porque si no te largás a hacer un ejercicio como estos, entonces sin haber chequeado eso y ya veo que no les sale y se te frustra todo y...</p>	3				<p>Explaining</p>
<p>(14)S: por eso que (?) para que sepan bien esta parte para que puedan seguir con lo otro.</p>					
<p>(15)T: exacto pero al mismo tiempo, si no tienen esto muy claro porque un warming-up puede ser hasta organizar una oración por ejemplo, algo rápido.</p>	3 3				<p>Explaining</p> <p>Providing alternatives</p>
<p>(16)S: ahora se me ocurre porque la profe me contó que ella les había pedido que llevaran unas pictures de los Monsters Inc. para describirlos, y al final, no lo hicieron nunca entonces como que los chicos los llevaron y hoy no lo pudieron hacer, entonces yo lo iba a hacer el lunes.</p>					

(17)T: bien. Esperando que los lleven, let's hope.	3 3				Feedback Miscellaneous
(18)S: no pero sí, los llevaron todos hoy, preguntaban ¿Profe, podemos hacer eso?, re interesados en eso, entonces a lo mejor, ella les pidió que no fueran los dos principales si no que fueran los otros. A lo mejor yo puedo usar esos dos principales como warming-up como para...					
(19)T: estaría bien.	3				Feedback
(20)S: a lo mejor hacerles preguntas, o decir...					
(21)T: porque ellos ya saben the interrogative form.	3				Explaining
(22)S: sí.					
(23)T: entonces estaría bárbaro, genial entonces con eso aparte enganchás los chicos, ves cómo funcionan con vos, y ver cómo te responden y de paso te das cuenta si saben el topic or not.	3 3				Feedback Explaining
(24)S: entonces haríamos esto como practicar que sepan hasn't y...					
(25)T: perfecto.	3				Feedback

Steps: 1 (diagnostic question) – 2 (checking diagnosis) – 3 (intervention strategy) – 4 (checking student's learning). **Diagnostic strategy:** question – reading – listening – prompt. **Response required (by diagnostic strategy):** c (convergent) – d (divergent) – nr (no response). **Cognitive level (by diagnostic strategy):** remembering – understanding – applying – analyzing – evaluating – creating. **Intervention strategy:** feedback – hints – instructing – explaining – modelling – questioning – providing alternatives – giving opinions
miscellaneous.

The Model of Contingent Teaching specifies a sequence of steps which are not necessarily fixed since one or more steps may not occur at all. In addition, these steps may appear more than once in a given interaction fragment as the teacher may need to refine her/his diagnosis and provide multiple instances of assistance. However, whenever all the steps appear in an interaction, one would expect step 2 (checking the diagnosis) to follow step 1 (diagnostic strategies) and step 3 (intervention strategies) to follow either step 1 or step 2, for example. A closer look at the contingent interaction fragments analyzed in this research study evinced that sometimes the order of these steps was reversed. In some of the interactions ($n= 8, 21\%$) which consisted of a *123* cycle, the supervisor was found, in fact, to complete a *132* sequence or teaching cycle. In other words, the supervisor first helped the student-teacher with what he/she required and later checked her own understanding of the information she had obtained through diagnostic means. These fragments were considered contingent because they all comprised some kind of diagnostic strategy the supervisor could draw on to provide support. Table 4.4 presents an example of a *132* contingent cycle. This fragment appeared in the middle of session 9 after other two fragments. In the first fragment, the student-teacher commented on the procedure the teacher she was observing followed to present vocabulary related to sports whereas in the second fragment she explained the warming-up activity she was planning to use. The supervisor got to know how the student-teacher would work with vocabulary by means of different diagnostic strategies (step 1) (turns #27 and 29), which helped her predict one difficulty the students might face: the language the student-teacher would use in the presentation could be difficult for the students to understand. Drawing on the information provided in turn #30, the supervisor assisted (step 3) the student-teacher by calling her attention to this problem area (turns #35, 37 and 39). However, in turn # 41, we found a step 2 turn in which the supervisor checked her assumptions about the way in which the student-teacher would work with vocabulary; i.e. the lesson would involve vocabulary revision rather than presentation. Even though this step 2 came towards the end of the interaction after the supervisor had helped the student-teacher, it did not interfere with the scaffolding process because the supervisor managed to assist the student-teacher contingently by drawing on the information already gathered.

Table 4.4 – 132 Contingent interaction fragment (Session 9, fragment 37)

	Step	Diagnostic strategy	Response required	Cognitive level required	Intervention strategy
(26)S: Después presentation, fijate.					
(27)T: (T is reading). Ves ¿cómo vas a presentar? Vos vas a hablar sobre popular sports in Argentina.	1 1	Reading Question	nr d	----- Creating	
(28)S: Sí, yo voy a llevar...					
(29)T: ¿Cómo va a ser visualmente eso?	1	Question	d	Creating	
(30)S: Yo llevo ya escrito para no perder tiempo, dice <i>the USA – Argentina</i> , y yo después yo voy a ir diciendo: <i>where do you think this is popular in USA, Argentina or both?</i>					
(31)T: Estoy pensando solamente una cosa=					
(32)S: Sí, decime.					
(33)T: =ahí esos chunks de language, hacelos=					
(34)S: ¿más cortos?					
(35)T: =o graded down, digamos, tratar de que sea menos vocabulario que no sepan . Por ejemplo, <i>is this popular in Argentina? yes or no</i> porque para una persona que no escuchó nunca, que no está acostumbrada <i>what do you think? Or both</i> quizás no lo saben, ahí se van a marear, van a empezar a revolear los ojos de que no entienden. En cambio <i>popular</i> podés anotarlos mientras lo vas diciendo=.	3 3 3 3				Instructing Modelling Explaining

(36)S: ¿puedo?					
(37)T: =o podés anotar la palabra en el pizarrón <i>Do you think this sport is popular in Argentina? Is it popular in Argentina? Is it popular in the USA?</i>	3 3				Providing alternatives Modelling
(38)S: <i>or both countries?</i>					
(39)T: Claro, con la mímica sale. Bien eso puede arrancar así. Está muy bien.	3 3				Hints Feedback
(40)S: Bueno, eso es para hacer la presentation, que en realidad es todo review, ¿no es cierto?					
(41)T: Sí, porque esto en realidad ella lo hizo eliciting la clase pasada, ¿no es cierto?	2				
(42)S: Todo, toda esta lista la dijeron los chicos.					
(43)T: Todo review.					
(44)S: Y esto lo dijo ella porque está en el libro.					
(45)T: Bien, estos son 10 minutos.					

Steps: 1 (diagnostic question) – 2 (checking diagnosis) – 3 (intervention strategy) – 4 (checking student’s learning). **Diagnostic strategy:** question – reading – listening – prompt. **Response required (by diagnostic strategy):** c (convergent) – d (divergent) – nr (no response). **Cognitive level (by diagnostic strategy):** remembering – understanding – applying – analyzing – evaluating – creating. **Intervention strategy:** feedback – hints – instructing – explaining – modelling – questioning – providing alternatives – giving opinions – miscellaneous.

Non-contingent interactions occurred four times in the whole data set. According to the Model of Contingent Teaching, they only consisted of a step 3 turn (intervention strategy). In these interactions, the supervisor provided help immediately without first gathering diagnostic information. These interactions were all initiated by the student-teachers and shared one feature: they raised an issue or concern the student-teachers had. That is to say, they did not involve explanations regarding the lesson plan. Table 4.5 presents a non-contingent interaction fragment. In this example, the student-teacher was concerned about not having the freedom to choose and/or design her own activities as seen in turn #46: “the first time in class, I’m just revising, I cannot show things maybe I want to”. The supervisor addressed this concern immediately in turn #47 till the end of the interaction (turns 49, 53 and 55), which rendered the fragment non-contingent as the supervisor did not make use of any diagnostic strategy to have a clearer picture of the student-teacher’s understanding.

The findings described in the section above focused on the steps taken by the supervisor and the contingency of her help. All in all, contingent interaction fragments which comprised *13* and *123* cycles occurred the most. They were characterized by a key feature: diagnostic strategies informed the supervisor’s decisions as to how much and what kind of help the student-teachers required. These interaction fragments were thus found to be contingent. Non-contingent interactions occurred the least. They were characterized by being initiated by the student-teachers’ concerns, which were immediately addressed by the supervisor. An exception to the order of the steps was observed in some interaction fragments which involved a *132* sequence. In these cases, the supervisor checked her diagnosis after providing help. In any case, they were coded as contingent as well since the supervisor gathered information before helping the student-teachers.

In the following part, I delve into the characteristics of steps 1, 2 and 3 since no examples of step 4 strategies were found in the corpus. The findings regarding diagnostic strategies show what kind of information was elicited from the student-teachers. The analysis of intervention strategies indicates how the supervisor helped the student-teachers.

Table 4.5 – Non-contingent interaction fragment (Session 2, fragment 11)

	Step	Diagnostic strategy	Response required	Cognitive level required	Intervention strategy
(46)S: And then number 7 is rearrange, the same thing, I mean the first time in class, I'm just revising, I cannot show things maybe I want to.					
(47)T: no problem.	3				Feedback
(48)S: Maybe for later.					
(49)T: But you've been asked by the teacher.	3				Miscellaneous
(50)S: Right I have to continue.					
(51)T: if it was a substitution class=					
(52)S: that would be my chance.					
(53)T: that would be your chance, so it's just fine , the thing is how you would go through this	3				Explaining Feedback Hints
(54)S: in English and in Spanish.					
(55)T: right, with your own style, that's the important thing here. Don't worry about a bit of revision, don't worry, you might have to introduce a topic or not in these training classes	3				Hints Explaining

(56)S: she told me later, the difference between <i>will</i> and <i>going to</i> and I'll try to do it inductively.					
(57)T: so we'll see then.	_____	_____	_____	_____	_____

Steps: 1 (diagnostic question) – 2 (checking diagnosis) – 3 (intervention strategy) – 4 (checking student's learning). **Diagnostic strategy:** question – reading – listening – prompt. **Response required (by diagnostic strategy):** c (convergent) – d (divergent) – nr (no response). **Cognitive level (by diagnostic strategy):** remembering – understanding – applying – analyzing – evaluating – creating. **Intervention strategy:** feedback – hints – instructing – explaining – modelling – questioning – providing alternatives – giving opinions – miscellaneous.

4.2 Diagnostic strategies

4.2.1 Types of diagnostic strategies

Since gathering information about the student-teachers' understanding was an essential step to tailor the support required, all the diagnostic strategies were analyzed for the type and quality of the strategies. 225 instances of diagnostic strategies were found in the 102 interaction fragments analyzed here. In terms of the type of diagnostic strategies, *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 4.6 shows the number and percentages of the diagnostic strategies found in the data set.

Table 4.6 – Figures for diagnostic strategies

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

As mentioned before, the supervisor did not make use of any diagnostic strategy in four of the fragments analyzed in the present work. In the remaining of the fragments (n= 98), 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%). Table 4.7 shows the distribution of diagnostic strategies per fragment.

Table 4.7 – Distribution of diagnostic strategies per fragment

N° of diagnostic strategies per fragment	0		1		2		3		4		5		6		7		8	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
TOTAL of fragments	4	4	37	36	29	28	16	16	8	8	2	2	3	3	2	2	1	1

The analysis of diagnostic strategies also indicated that different types of diagnostic strategies were used per fragment, which resulted in different combinations. The range of combinations per fragment was 0-4, with two combinations (n= 43, 42%) and one combination (n= 42, 41%) occurring the most.

The analysis of the types of diagnostic strategies in terms of number and combinations per fragment provides evidence to support the importance of a diagnostic phase to provide contingent support. In the examples provided in Tables 4.3 and 4.4, we can observe the analysis of diagnostic strategies. In the first example, 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 strategies – *diagnostic prompts* and *reading the student-teacher's work* – were used in combination to diagnose her understanding. In the second example, the supervisor started the interaction fragment by reading the presentation the student-teacher had devised for vocabulary related to sports (turn # 27) and immediately after that in the same turn, the supervisor posed a diagnostic question to gather more information. Again in turn # 29, a follow-up diagnostic question enabled the supervisor to create a more complete picture of what the intended presentation would look 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. In both cases, 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.

4.2.2 Response required

Determining whether diagnostic strategies were employed by the supervisor was one of the key dimensions of analysis of the scaffolding process because they were found to be a prerequisite for contingent support. Furthermore, it was necessary to find out the quality of the diagnostic strategies in order to examine the level of understanding required from the student-teachers, and therefore, the amount and quality of information they provided the supervisor with. All diagnostic strategies were further analyzed for types of response required: convergent or divergent. The distribution of the types of responses required by each diagnostic strategy is presented in Table 4.8. Coded examples of type of response required are shown in Tables 4.3 and 4.4.

Table 4.8 – Distribution of types of response required

RESPONSE REQUIRED	No response		Convergent		Divergent		TOTAL N° OF DIAGNOSTIC STRATEGIES
	n	%	n	%	n	%	
TOTAL	70	31	55	24	100	45	225

Diagnostic strategies that elicited a *divergent response* (n= 100, 45%) occurred most frequently in the corpus. Therefore, the supervisor was found to encourage the student-teachers to provide full explanations, back up their choices, express their opinions, among others. These types of responses were mainly found when the supervisor diagnosed the student-teachers' level of understanding by means of *listening to the student-teacher's explanations / choices* or *diagnostic prompts*, both of which encouraged them to explain and/or comment on their lesson plan or any aspect of teaching practice. The example interaction fragment in Table 4.3 shows this. The diagnostic prompt in turn #1 encouraged the student-teacher to explain how she had decided to plan her lesson, going in as many details as she decided were necessary. She could have engaged in a lengthy or a brief explanation. Divergent responses were also

elicited by posing diagnostic questions such as in the cases in which the supervisor asked a more open-ended question as seen in the example in Table 4.4. The questions in turns #27 and 29 asked the student-teacher to supply more details of the decisions behind her choice of presentation. It must be noted that not all of the diagnostic questions identified in the data set elicited a divergent response; some required a convergent one. Regarding *reading the student-teacher's work* as a diagnostic strategy in itself, it was found to require *no response* on the student-teachers' part (n=70; 31%). The analysis showed that on some occasions the information collected by reading seemed to enable the supervisor to diagnose the student-teacher's understanding as she provided help immediately after reading. However, the supervisor sometimes asked a follow-up question as part of the diagnostic phase, an example of which can be observed in Table 4.4. In turn #27 after having read a section of the student-teacher's lesson plan, the supervisor asked “¿Cómo vas a presentar?”, which may have provided her with more information. Finally, *convergent responses* were elicited to a lesser extent (n=55, 24%) than either *divergent* or *no responses*. They were always elicited by means of diagnostic questions in order to gather information about the student-teachers' knowledge of concepts, teaching techniques and instructional procedures, for instance. Excerpt 7 illustrates a diagnostic strategy which required a convergent response. The diagnostic strategy is in bold. In this example, the supervisor asked the student-teacher whether the activities she had described (“short answers and fill in the blanks”) implied production for the students. She had to classify them, bearing in mind what production was, all of which required her to provide only one correct answer. This information helped the supervisor to get to know whether the student-teacher could distinguish among activities types, which is a key dimension when sequencing the activities in the lesson plan.

Excerpt 7 (Session 20, fragment 87)

S: (showing the supervisor the coursebook activities chosen) Here you have a more contextualized picture because it's [sic] the book, so this would be for the second part. This will complement the whole idea, the whole process of revising *will* or *going to*.

T: have you thought of any...anything about production? I don't remember.

S: yes, production, just short answers and fill in the blanks but not for them to create a

paragraph.

T: Is that a production activity?

S: yes

T: not production, that's practice.

S: yes.

T: OK, there won't be production.

S: no, no just practice.

4.2.3 Cognitive level

Producing a convergent or a divergent response may be more or less challenging for student-teachers depending on the type of cognitive processing they have to go through. Different types of responses also provide teachers with different kinds of information which may be useful during the diagnostic phase. Drawing on the six different cognitive levels of the Revised Bloom's taxonomy (Forehand, 2005), all the diagnostic strategies were analyzed for the kinds of cognitive level they fostered so as to enrich the analysis of diagnostic strategies. A total of 155 diagnostic strategies were analyzed since they required some kind of response from the student-teachers. 70 diagnostic strategies were left out because they elicited no response. Table 4.9 presents the numbers and percentages of diagnostic strategies in terms of the cognitive level promoted. Coded examples of the cognitive level elicited by the diagnostic strategies in full interaction fragments can be observed in Tables 4.3 and 4.4. Each cognitive level is discussed below and other examples are provided to illustrate them.

Table 4.9 – Figures for cognitive level required by diagnostic strategies

COGNITIVE LEVEL	Remembering		Understanding		Applying		Analyzing		Evaluating		Creating	
	n	%	n	%	n	%	n	%	n	%	n	%
TOTAL	46	29	6	4	3	2	14	9	7	5	79	51

The larger number of instances identified in the corpus appeared to be placed towards the more divergent end of the continuum, with diagnostic strategies that required the student-teachers to analyze, evaluate and/or create (n= 100; 64%). Fewer instances were found at the more convergent end of the continuum (n= 55; 36%) in which the student-teachers were stimulated to remember, understand and/or apply information. *Creating* was by far the most frequent cognitive activity encouraged by the supervisor so as to make the student-teachers arrange or reorganize different elements to create a new structure or pattern. In the tutoring sessions, through *listening to the student-teacher's explanations / choices* and/or *diagnostic prompts*, the supervisor encouraged them to put different elements together to plan and create a coherent and appropriate lesson for a given group of students. Among other aspects, creating a lesson plan required them to integrate conceptual and procedural knowledge and, at the same time, adapt the lesson to the target group of students and the host institution. This can be seen in turn # 1 in the interaction fragment in Table 4.3. Other common cases in which the supervisor stimulated the student-teachers to create could be observed in interactions in which the supervisor posed questions for the student-teachers to explain how they would execute an activity included in the lesson plan or how they would carry out an activity differently. Examples of these two cases are presented below. The diagnostic questions that promoted *creating* are in bold.

Excerpt 8 (Session 16, fragment 66)

S: (after commenting on and self-assessing her performance the previous lesson and immediately before starting to explain to the supervisor her lesson plan for the upcoming lesson) and actually what the teacher told me was to correct the homework, it's 40 minutes so she told me to correct the homework and actually, for example, I remember when I was observing ... this exercise that you have to say if you ...

T: whether it's tense for *has* or *is*

S: for example here *her mother's American* and they say *is and why* and she tried to make them notice which is the difference in every single sentence so...

T: So again **how are you planning to go about this?**

S: that's why I'm thinking because I don't know if 40 minutes to correct the homework, I think it's too much but I don't know.

T: yes. **The idea is...?**

S: she told I had to correct it, everything, yes.

T: let's try as long as you get.

S: but I don't know if I have to plan something else or not

Excerpt 9 (Session 6, fragment 24)

S: (after describing an activity the cooperating teacher had asked the students to do the previous lesson and commenting on her own impressions about the students' difficulties in doing it) Yo no haría así el news report

T: eso es interesante. **¿Cómo lo harías vos?**

S: Porque me da la sensación de que a los chicos les da mucha vergüenza, están muy exposed. Y me mostró el papelito la chica antes de entrar. *Tengo que decir esto*, y yo digo pero ni siquiera había entendido ella la noticia que tenía que decir. No era que por lo menos que había dicho, bueno, fácil pero ...

T: claro simple pero que haya ...

S: *there was a car accident in front of the school*, ella lo había anotado *der*, era más enfocado en la pronunciación que en lo que decía, y dije *ay, pobre chica, pasa vergüenza*.

T: Claro no ¿cuál sería el objetivo? Simplemente practicar.

S: Claro, speaking y pasar vergüenza para mí. A mí no me gustaría.

T: **O sea que si lo condujeras ¿harías algo como...?**

S: Primero que entendieran. Yo anotaría cuatro noticias, las entendemos todos, cuando practiquen bien la pronunciación y el meaning, después lo cuentan más fácil porque ya van a saber cuáles fueron los hechos.

In excerpt 8, the diagnostic questions “how are you planning to go about this?” and “the idea is...?” encouraged the student-teacher to explain how she would design a teaching sequence, bearing in mind that the cooperating teacher had asked her to check several activities which had been assigned as homework. In order to do so, the student-teacher had to make different decisions to set the lesson objectives and plan a coherent lesson without neglecting the cooperating teacher's requests. In excerpt 9, the diagnostic questions “¿Cómo lo harías vos?” and “O sea que si lo condujeras ¿harías algo como ...?” invited her to hypothesize on the spot about how she could eventually conduct the activity but in a different more purposeful way. In both cases, the student-teachers were stimulated to integrate different elements and put forward a proposal for the given class.

Secondly, we found instances of the lowest cognitive level of *remembering* (n= 46; 29%). This mental processing involves retrieving, recognizing, and recalling relevant knowledge from long-term memory. In the context of this research, the supervisor fostered remembering by eliciting from the student-teachers key concepts and/or definitions, principles underlying the sequencing of the activities, choice of techniques, among others. This information seemed to serve the purpose of providing her with some necessary information about the student-teachers' background knowledge and more fine-grained data in order to construct a more complete picture of the student-teacher's level of understanding. The following examples illustrate this. The diagnostic questions that promoted *remembering* are in bold.

Excerpt 10 (Session 21, fragment 88)

T: (at the beginning of the tutoring session, questioning the student-teacher about a particular weakness the supervisor had identified in the lesson plan she had seen by email) ¿Leiste lo que te puse sobre el warming-up? **¿Qué es un warming-up?**

S: sí, por eso, eso es lo que estaba por decirte. Primero yo con el warming-up (?) y después ¿cómo decís vos... que los engage más? ¿Que cambie qué?

T: no, no. el tema es que vos me ponés como objective, el tema es que coincidan las ideas, a ver si me entendés por este lado “to engage students”, pero en realidad lo que vos usás como warming-up es simplemente instrucciones. ¿Me entendés? “The teacher tells the students that they are going to work with the text on page 130.” Eso no es lo que llamaríamos warming-up, en general, ¿te acordás?

S: sí, entiendo.

Excerpt 11 (Session 11, fragment 44)

T: (after listening to the student-teacher explain the warm-up activity she was planning to use) (T is reading). **¿Ahora en el warming-up puede ir la presentación de las prepositions?**

S: no, no es una presentation (S is Reading).

T: all right.

S: yo misma lo digo: por ejemplo *the cat is behind the bed*.

T: claro, pero eso sería ya part of the presentation stage.

In excerpt 10, the supervisor called the student-teacher's attention as to her choice of a warming-up activity. Since the supervisor had already read the lesson plan by email, she had identified this weakness. Consequently, she decided to ask the student-teacher to define and/or characterize warming-up activities so as to make sure that she understood the concept and could eventually use this knowledge to devise these types of activities in her lesson plans. In excerpt 11, the supervisor sought to make the student-teacher retrieve information about two stages of a lesson: warming-up and presentation. By retrieving this information, the student-teacher was able to distinguish between the stages and answer the question posed by the supervisor. All in all, the kind of information elicited by these questions is the least complex in comparison to that elicited by other mental processes since *remembering* requires the student-teachers to recall information they already possess but are not required to use it in other ways.

Thirdly, 9% (n= 14) of the diagnostic strategies used by the supervisor stimulated the student-teachers to engage in *analyzing*. This cognitive process involves establishing links between different aspects and their overall purpose, distinguishing and examining the parts that make up a whole, among other activities. In the context of this research study, the supervisor stimulated the student-teachers to analyze the suitability of an activity in relation to the overall aim of the lesson, predict difficulties a given activity may give rise to, question a decision and/or analyze possible difficulties, among others. This is illustrated by the following examples. The diagnostic questions that promoted *analyzing* are in bold.

Excerpt 12 (Session 2, fragment 8)

S: (after explaining the warm-up activity) So then I'll move to this exercise.

T: Do you have the exercise?

S: It says "do you agree with any of these statements?" So I'm going to write on the board.

T: So how are you going to go about this? Are you going to translate? Because ...

S: Yes, *housework is a waste of time. ¿Les parece que la tarea de la casa es una pérdida de tiempo?, si, no, yes, no*, I don't know how they would react.

T: right. The thing is just not to waste time. **What do you expect the outcome of this to be?** Because if they are going to answer in Spanish, maybe you can tell them to answer *yes* or *no*, all right? **So what they are supposed to do is to understand what?**

S: This is just a warm up, it's another step.

T: all right, what I mean is, because if you are going to translate the sentences, then the answer is expected to be in Spanish. **What would be exactly the point?**

Excerpt 13 (Session 9, fragment 38)

S: (after discussing the role of the L1 in the development of the lesson with the supervisor and describing the activity for the presentation of vocabulary activity related to sports) Éste lo inventé yo. Entonces yo no quiero poner en español *basquetbol* y que ellos lo pongan en inglés. Yo quería through pictures porque ella me dio esa idea.

T: No, no porque además tenés el problema de spelling.

S: Yo no quería porque ella me pidió que hiciera...me dice *y si ponés así y puede ser con pictures, ah, bueno*, no me dijo que no pero ella me sugirió el español de una, ¿entendés?

T: Claro, bueno vas probando, suponete que ellos dicen *¿éste que es?, ¿number 8?* entonces vos ahí tratás de usar inglés *number 8*.

S: No, es que eso lo tengo pensado cuando chequeemos porque vamos a chequear todo oral.

T: Suponete que surja la duda, ¿cómo lo vas a manejar vos? Suponete que te digan *¿ay, cómo era el número 8?*

S: No, es que cuando nosotros hablemos de deportes y todo eso, ellos ya tienen la lista hecha.

T: right.

S: Ellos pueden ir chequeando.

T: Entonces **¿cuál sería el problema que podría surgir acá en definitiva?**

S: No, no, te digo lo que me dijo ella.

T: **¿Por qué elegiríamos poner la palabra en castellano?**

S: No sé por qué.

In excerpt 12, the supervisor encouraged the student-teacher to question the activity she had planned. Firstly, she made her analyze the output the students would be expected to produce (“What do you expect the outcome of this to be?”) as well as the thinking process they would engage in (“So what they are supposed to do is to understand what?”). Secondly, the supervisor encouraged her to relate the intended outcome of the

activity to its overall purpose (“What would be exactly the point?”). In excerpt 13, the supervisor posed two questions: “¿cuál sería el problema que podría surgir acá en definitiva?” and “¿Por qué elegiríamos poner la palabra en castellano?”, which served to foster analyzing since the student-teacher had to differentiate between conducting the activity in two possible manners, i.e. asking the students to retrieve the vocabulary items using either the Spanish equivalent or a picture as a prompt. The supervisor also encouraged her to anticipate the difficulties that the students might encounter and analyze in what ways carrying out the activity in either manner would help the students overcome those difficulties. In both excerpts, it can be seen that the questions posed by the supervisor fostered not only analyzing the activities but also moving beyond and relating them to other macro-level aspects such as the overall aim of the lesson or the potential difficulties.

Fourthly, we found instances of diagnostic strategies that encouraged the student-teachers to engage in the cognitive activity of *evaluating* (n= 7; 5%). This cognitive process consists of making judgments, appraising, assessing and/or critiquing. In all the examples identified, the supervisor asked the student-teacher to reflect on and assess a particular aspect of the previous lesson he/she had taught or the lesson itself in general terms. In the following excerpts, the supervisor encouraged the student-teacher to evaluate a given activity in the first example and a particular aspect of the lesson: timing in the second one. The diagnostic questions that promoted *evaluating* are in bold.

Excerpt 14 (Session 16, fragment 64)

T: (after asking about the techniques used to make sure the students understood her instructions and explanations in the L2) (T is reading). This is the article, that’s all right. (T is reading). And the rest is what we have already talked about? So you haven’t changed that? You will try?

S: No, actually I have done this today.

T: (T is reading). Tell me then. **How did this go, especially the=**

S: no, actually when I...

T: = the part of the monsters and all that?

S: the monsters was the last activity and I tried to do those exercises about affirmative and negative. They were ok *has got, hasn't* and it was really easy at the end.

T: they could produce what you had expected?

S: some of them did it in two minutes but others take a lot of time and actually they were all the time talking because... They work but they talk, talk, talk.

Excerpt 15 (Session 16, fragment 65)

S: (after briefly self-assessing an activity carried out the previous lesson) and actually I had time to do everything so...

T: yes, **how did the timing go then?**

S: yes, it was...

T: fine. **You finished everything just in time?**

S: yes, yes I did it.

In excerpt 14, the supervisor encouraged the student-teacher to assess the effectiveness of one activity she had carried out in a previous lesson whereas in excerpt 15 she asked her to assess timing. In both cases, the supervisor first asked a broad question to foster *evaluating* and then introduced a criterion to help the student-teacher self-assess. In the first case, she had to assess the activity in terms of the expected output students had to produce and, in the second one, in relation to the completion of the activities in the allotted time. Both excerpts show evidence of the cognitive activity of *evaluating*, in which the student-teachers had to move beyond the information they had (their performance in this case) and consider it in the light of certain criteria.

4% (n= 6) of the instances of the diagnostic strategies analyzed aimed at eliciting the student-teachers' *understanding* of different dimensions or aspects of teaching practice. This cognitive process involves constructing meaning on the basis of prior knowledge and/or skills. In the tutoring sessions, *understanding* was mainly realized by requiring the student-teachers to provide examples of the expected outcome of an activity, exemplify the output the students were expected to produce, distinguish among different types of activities, among others. The following examples illustrate this cognitive level. The diagnostic questions that promoted *understanding* are in bold.

Excerpt 16 (Session 9, fragment 39)

T: (after listening to the student-teacher describe the activities she had chosen to present and practice vocabulary and exchanging views on the decisions made by the

student-teacher) (T is reading): Here you have the production.

S: Sí, porque yo les iba a decir: *On Monday, at school, at home*. Yo les quiero contar eso cuando hable yo de mí, y yo iba a ir describiendo, que se yo: *I...*

T: ¿cómo sería un exponent de esto?

S: Esperá, a ver.

T: *When* o *where*, esa información, ¿esto lo saben? ¿Vos sabés si saben expresar eso?

S: No, yo iba a usar *at home* y *at school* nada más.

T: y ¿con *when*? Tampoco sabés.

S: No, porque yo decía *when, in the afternoon, in the morning*, ¿vos decís que no saben eso?

T: No lo sé, tendrían que, pero eso tendrías que haber chequeado con ella o con el libro porque te estás arriesgando a que no salga.

Excerpt 17 (Session 11, fragment 45)

S: (after discussing the presentation stage and receiving feedback on some changes to be made) This one. They have to circle the correct preposition.

T: Por eso, tienen que llegar bien seguros a ese punto. Para poder hacer ese ejercicio, tienen que haber entendido perfectamente bien. Bien right.

T: (T is reading) 2 and 3, ok.

S: from the workbook

T: ¿Qué son? Éste es 3.

S: 2 es bien controlled porque tienen que

T: producir la oración pero con cues

S: y acá tienen que producir pero más.

In excerpt 16, the supervisor and the student-teacher were discussing an activity which aimed to make the students use vocabulary items related to sports in a free manner (i.e. a production activity). The supervisor asked the student-teacher the question “¿cómo sería un exponent de esto?” so as to elicit from her an example of the output she expected the students to produce. In order to answer the question, the student-teacher had to understand what free production activities entail and then give examples of the expected output, accordingly. In excerpt 17, the supervisor asked her to explain the difference between activities 2 and 3 in the lesson plan. As far as it can be understood from the student-teacher’s answer, activity 2 was a controlled activity whereas activity 3

was a more guided or freer one. In order to reply, she had to bear in mind what each activity involved, how much help was provided for the students as well as what language they had to produce. Understanding all these aspects helped her to classify the given activities into controlled, guided or free. It follows from the examples above that this kind of cognitive process required the student-teachers to show an understanding of the information they had (about types of activities in these cases) and use it to illustrate it with examples or classify activities.

Finally, 2% (n=3) of the diagnostic strategies aimed at encouraging the student-teachers to engage in the cognitive process: *applying*. This kind of mental processing comprises using information or skills to carry out a procedure. In the data analyzed here, the few instances found got the student-teachers to state objectives for the lesson or supply actual instructions for the activities chosen. The following examples illustrate this cognitive level. The diagnostic questions that promoted *applying* are in bold.

Excerpt 18 (Session 19, fragment 80)

T (after listening to the student-teacher describe two recognition activities to review vocabulary related to family members) (T is reading). Después van a reinforce

S: They have to choose one member of the family and describe it.

T: perfecto. Te falta el aim, **¿cómo sería?**

S: a ver. Sí, tendría que ser “students have to describe the (pairs) of the member they have already chosen.”

T: Bien, muy bien el exponent también.

Excerpt 19 (Session 15, fragment 62)

S: (after discussing how to give instructions in the L2 for a given activity included in the lesson plan) While I do the observations, the teacher uses Spanish all the time even to give instructions. I assume that this is to make her sure the students really understood what to do.

T: but now she wants you to make them understand instructions

S: yes

T: how's that? **How do you do it?**

S: I sometimes say, for example, first I use English and then I switch to Spanish if it's necessary.

T: right, absolutely.

S: but after checking, if they understood *who can explain what I have said?* and if I see that they cannot explain, I guide them, I guide them like, *so you have to es... write... escri... escribir. Ok what do you have to write?*, something like that.

T: but that's good. That's a good idea. Don't worry so much then about that as long as they can understand instructions, which is the objective you have this week. Let's make sure that they do actually understand. Right. Because they are not supposed to read in a loud voice or know how to pronounce the words but they have to understand what they have to do in the exercises

In excerpt 18, the supervisor was reading one of the activities in the student-teacher's lesson plan. Since the activity lacked an objective, she asked her to identify and formulate it so as to include it in the lesson plan. The student-teacher had to use her knowledge of how to set goals and objectives in order to provide the actual objective. In excerpt 19, the supervisor and the student-teacher were discussing the issue of using the L1 and/or the L2 to give instructions. The supervisor asked her not only to explain to her what technique she would try in order to use the L2 when giving instructions but also to apply the technique and produce the actual words she would eventually utter. In both cases, the diagnostic strategies the supervisor resorted to aimed at having the student-teachers apply in practical terms knowledge they already possessed to carry out different procedures such as formulating objectives and/or giving instructions.

The analysis of diagnostic strategies revealed that the supervisor mainly elicited diagnostic information by fostering higher levels of cognitive processing through divergent responses and the cognitive levels: *creating*, *analyzing* and *evaluating*. It must also be said that encouraging the student-teachers to remember, understand and apply information were also found in the data, but these cognitive levels mainly contributed to complement the information the supervisor had collected through the student-teachers' application of higher cognitive levels. In addition, *reading the student-teacher's work* elicited no responses on the student-teachers' part, but helped the supervisor collect diagnostic information. Follow-up diagnostic strategies were usually found and elicited various types of responses.

4.3 Checking the diagnosis

Checking the supervisor's own diagnosis was found to reinforce the diagnostic phase of the scaffolding process as mentioned above. All the strategies deployed by the supervisor to check her diagnosis were analyzed in terms of their realization. 72 instances of strategies for checking the supervisor's diagnosis were found in the 102 interaction fragments analyzed here. As regards their realizations, *summarizing and/or paraphrasing what a student has said* was observed to be the most frequent strategy (n= 55, 76%) followed by *asking the student whether something is correct* (n= 17; 24%). Table 4.10 shows the number and percentages of the checking the diagnosis strategies found in the data set.

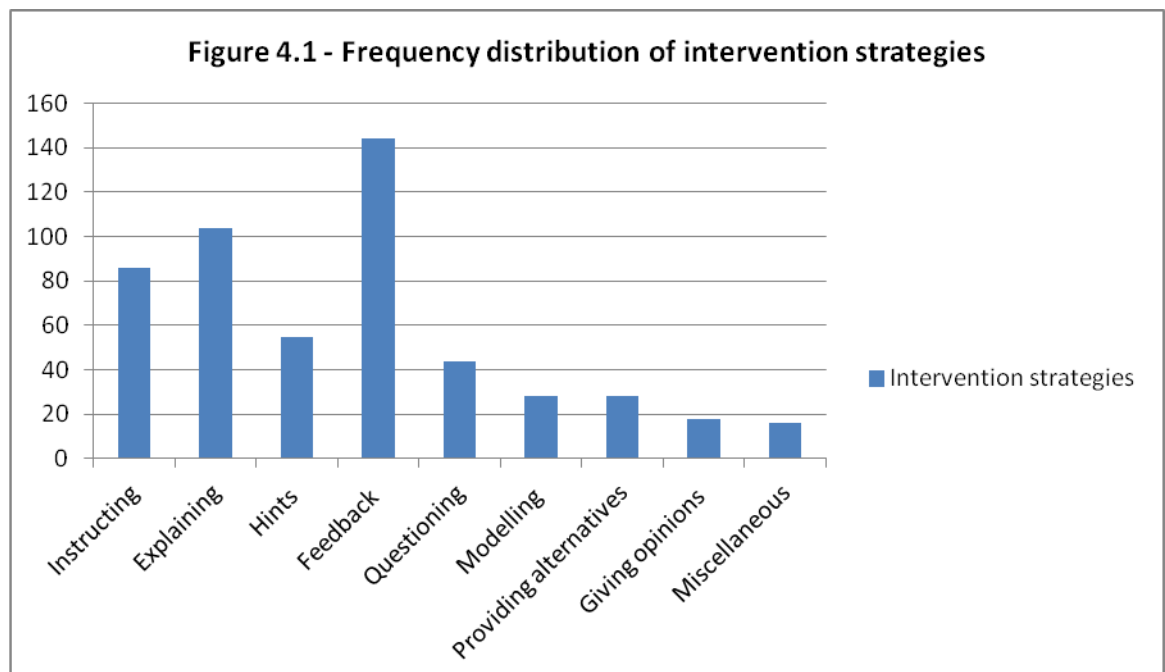
Table 4.10 – Figures for checking the diagnosis strategies

Checking the diagnosis strategies	Summarizing / paraphrasing what a student has said		Asking the student whether something is correct		TOTAL N° of strategies
	n	%	n	%	
TOTAL	55	76	17	24	72

The analysis of the types of checking the diagnosis strategies supports the importance of a diagnostic phase since these kinds of strategies help the supervisor consolidate her diagnosis. The interaction fragments in Tables 4.3 and 4.4 depict the use of *summarizing and/or paraphrasing what a student has said* and *asking the student whether something is correct*, respectively. As already explained and illustrated in section 4.1.2 above, the strategies deployed by the supervisor to realize step 2 of the MCT, regardless of their type, represent another tool to reinforce the diagnostic phase of the scaffolding process.

4.4 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 analyzed 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 4.1 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 the types of intervention strategies found can be observed in Tables 4.3, 4.4 and 4.5.



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 analyzed. 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 example interaction fragments in Tables 4.3 and 4.4 provide evidence of the multiple instances of intervention strategies identified per fragment and reflect the dynamics mainly established by the supervisor. In Table 4.3, it can be observed 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 #7 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 #8, the supervisor immediately decided to explicitly tell her what to do in turn #11. 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 #11, 13, 15, 21 and 23), along with the supervisor's own opinion in turn #11 and a suggested warming-up activity in turn #15. Within the same interaction and after the first string of help, the student-teacher came up with her own warming-up activity (turn #18), so more instances of support followed (turns #19, 23 and 25). 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 interaction fragment in Table 4.4 illustrates how the supervisor gave help when she spotted a particular difficulty. In this case, the student-teacher seemed to have difficulty in adapting her language to the students' level. The supervisor proceeded to tell her what to do ("esos chunks de language, hacelos o graded down, digamos, tratar de que sea menos vocabulario que no sepan"), explain to her why that was necessary (porque para una persona que no

escuchó nunca, que no está acostumbrada *what do you think? Or both* quizás no lo saben, ahí se van a marear, van a empezar a revolver los ojos de que no entienden”) and provide alternative sources to help the students understand (“En cambio *popular* podés anotarlos mientras lo vas diciendo, podés anotar la palabra en el pizarrón”) (see turns # 35 and 37). In addition, the supervisor resorted to modeling the language in order to make it more suitable to the students’ level as in “Por ejemplo, *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 # 39 when the supervisor gave a tip (“con la mímica sale”) and feedback when she agreed with the activity (“Bien eso puede arrancar así. Está muy bien”).

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 so far seem to indicate that the student-teachers’ learning-to-teach process was carefully scaffolded by the supervisor who made use of diagnostic and checking the diagnosis 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, checking the diagnosis and intervention strategies varied in number and types, which provided both the supervisor and the student-teachers with large amounts of information.

4.5 Contingent Shift Framework

From a macro-level perspective, scaffolding occurred in the tutoring sessions and the interaction fragments analyzed since the supervisor employed specific instances of help and support which were adapted to the student-teachers’ level of understanding

that she had diagnosed. The question remains, however, whether the supervisor adapted the degree of control she exercised to the student-teachers' level of understanding. A micro-level analysis of three-turn sequences was undertaken in a sample of 8 tutoring sessions, which consisted of 34 interaction fragments. 67 three-turn sequences which met the criteria explained in section 2.3.6 of the theoretical background chapter were identified and analyzed for contingency on the basis of the contingent shift framework. Table 4.11 shows the frequency distribution of contingent and non-contingent three-turn sequences.

Table 4.11 – Frequency distribution of contingent and non-contingent three-turn sequences

CONTINGENCY	n	%
Contingent	35	52
Non-contingent	32	48
TOTAL	67	100

A slightly higher percentage of contingent sequences (n= 35, 52%) was found in the corpus. However, the percentage of non-contingent sequences was not much lower and amounted to 48% (n= 32) of the sequences. Coded examples of contingent and non-contingent sequences can be found in Tables 4.12 and 4.13.

The example in Table 4.12 illustrates a contingent interaction fragment. It contains three three-turn sequences which were coded as contingent as well. At the beginning of the fragment, the supervisor tried to gather information about two vocabulary activities by means of diagnostic strategies. In the first sequence analyzed, the supervisor asked a broad question which encouraged the student-teacher to explain how she would check the activity (turn #66). The supervisor's degree of control was low (TDc2) since she did not provide new information but tried to elicit it from the student-teacher herself. In the following turn (#67), the student-teacher only addressed the supervisor's question at the end of the turn since most of the explanation she provided referred to how she would execute the activities rather than how she would

check them. The supervisor only got to know when and why she would check the activity. The student-teacher's understanding was coded as partial understanding (pu) because she seemed to answer the supervisor's question to some extent but her answer did not provide a full elaboration. The supervisor's turn in # 68 showed that she expected other aspects such as spelling to be included in the student-teachers' explanation. Since it was the supervisor who introduced this new information (i.e. the question of spelling) and elicited a response on this from the student-teacher, this turn was coded as high control (TDc4). In summary, the sequence was coded as TDc2 – pu – TDc4. As a result, the sequence was coded as contingent because the supervisor increased the control she exercised due to the partial understanding that the student-teacher appeared to have regarding how to check the activity. It seemed to be necessary to provide more focused information in order to guide the student-teacher into thinking about the issue of spelling when checking vocabulary activities. The following sequence started with the supervisor's turn #68. The student-teacher's answer was rather short (turn #69). She seemed to imply that the issue of spelling could be dealt with by asking the students to check the words in their folders or assuming that the students would check spelling in their folders on their own. The supervisor's turn (#70) dropped a hint about using the board to deal with spelling. Therefore, the student-teacher's understanding was again coded as partial (pu) because she did not consider all the possibilities for checking activities and the supervisor's turn was coded as high control (TDc4) since it introduced new information and elicited a response from the student-teacher. The second sequence was coded as TDc4 – pu – TDc4. Consequently, it was classified as contingent because the supervisor kept the same level of control due to the partial understanding that the student-teacher appeared to still have regarding how to check the activity. At the end of the fragment, the last sequence was also contingent because the student-teacher still seemed to stick to her idea that the learners would check spelling on their own by looking at the words written in their folders (turn #71), so the supervisor finally resorted to a full explanation. The last sequence was coded as TDc4 – pu – TDc5. It was contingent because the supervisor increased her control after the student-teacher's partial understanding. All in all, the whole fragment was considered contingent because it was necessary for the supervisor to gradually provide the student-teacher with more focused information since she did not seem to consider several key aspects when explaining how she would check the activity.

Table 4.12 – Contingent interaction fragment (Session 6, fragment 25)

	Step	TDC	SU	Contingency control	Comments
(58)T: A ver	1				
(59)S: Entonces ésta es 1 y 2, y de lo nuevo, que ella quiere que siga repasando, es 3 y 4. Terminamos eso en 20 minutos, si Dios quiere, terminamos ahí, y yo introduzco al último.					
(60) T: ¿Esto es después del warming-up? Después vas a practice,	2				
(61)S: Si practice del... Sí, estos dos.					
(62)T: Que son vocabulary and (T is reading)	1				
(63)S: Vocabulary. Es verbs, vocabulary					
(64)T: (T is reading). ¿Éstos cómo los vas a ...?	1 1				
(65)S: Ellos ya lo saben, es solamente <i>revise in context</i> porque ellos lo saben medio isolated. Entonces dijimos, <i>this is terrible</i> , y ellos lo que yo veo que necesitan es que, yo les leo esto, pero los dejo que ellos piensen sin traducir. Y <i>¿qué dice?</i>					
(66)T: Bien, yo quería saber, porque dice: “then they check”. ¿Cómo vas a hacer esa parte del checking?	1	TDC2			
(67)S: read all together in the end because first I want to read the dialogue, I mean for the whole class, with them so they follow.			pu		

And then they will see the pictures, to complete. For example, <i>empty the dishwasher</i> , they know all that, or <i>do the vacuuming</i> , they know all from previous classes. And then checking in the end because maybe they miss one part, one verb tense. That's all.					
(68)T: They won't need to check spelling, for example, because it's something they have?	3	TDc4		CC	
(69)S: Yes, they have in their folders, and in the previous ...			pu		
(70)T: So you're not going to do anything on the board?	3	TDc4		CC	
(71)S: No, exactly. I mean I tried the previous class because I saw some of the students will write, just two or three will write, so when I wrote the sentences on the board, then I went next to their desks, and said: <i>ok there in pictures</i> .			pu		
(72)T: That's why I was asking because usually they need to see the words =					
(73)S: Yes, yes, I know.					
(74)T: = in order to be sure about what they have done.	3	TDc5		CC	

Steps: 1 (diagnostic question) – 2 (checking diagnosis) – 3 (intervention strategy) – 4 (checking student's learning). **Teacher degree of control:** TDc0: no control/support – TDc1: lowest control – TDc2: low control – TDc3: medium control – TDc4: high control – TDc5: highest control. **Student understanding:** nucid: no understanding can be determined – nu (no / poor understanding) – pu (partial understanding) – gu (good understanding). **Contingency control:** CC (contingent control) – NCC (non-contingent control)

The example in Table 4.13 presents a non-contingent interaction fragment. In this short fragment, the participants were talking about using as much English as possible in the lesson. This issue was spontaneously raised by the student-teacher and immediately addressed by the supervisor. The fragment contains only one three-turn sequence. In the first instance of help found (turn # 76), the supervisor dropped a hint by suggesting that the student-teacher should look at the teacher to see whether the use of the L2 was appropriate, so it was coded as high control (TDc4). Then, the student-teacher's turn (# 77) seemed to show good understanding (gu) as she was aware of the need of using the L2 to help the students. However, the following supervisor's turn (#78) included a higher degree of control (TDc5) because it gave a more complete explanation. In summary, the sequence was coded as TDc4 – gu – TDc5. As a result, the sequence was coded as non-contingent because the supervisor increased the control she exercised even after the student-teacher had demonstrated to have a good understanding regarding how and/or to what extent to use the target language in the lesson. In other words, even though the student-teacher succeeded in her understanding, the supervisor increased the control she exercised. It did not seem to be necessary to add any extra information after the student-teacher's turn, but the supervisor did it anyway.

The two examples described above illustrate the major trends of contingent and non-contingent sequences observed in the corpus. However, other interesting observations triggered by the analysis of the CSF can be made. They will be described here as common scenarios found and will be illustrated by the example sequences analyzed in the interaction fragment in Table 4.14. To start with, most of the supervisor's turns which were coded as diagnostic strategies were also coded as either lowest (TDc1) or low (TDc2) degree of control whereas most of the supervisor's turns which were coded as intervention strategies were also coded as either highest (TDc5) or high (TDc4) degree of control. These patterns are in keeping with the findings already mentioned regarding the characteristics of diagnostic and intervention strategies. This trend can also be interpreted as an abrupt change from a low to a high degree of control. In several cases, the supervisor elicited information from the student-teachers in the first turn but then provided information herself to help them and elicited little or no information from them. In the example in Table 4.14, the diagnostic strategy of listening encouraged the student-teacher to provide an explanation of the choices and decisions she had made for the lesson, which helped the supervisor decide on how she could help her. The specific help which the supervisor provided in the first sequence (turn # 81)

included a full explanation and instruction but did not foster a student-teacher's response.

Another common scenario observed in the corpus consisted in keeping the highest control (TDc5) in both of the supervisor's turns. In some of these cases, the sequence was contingent as the supervisor had to keep the highest degree of control in the second turn because the student-teacher showed no or partial understanding. Nevertheless, it is worth mentioning that the most common cases were those in which the supervisor kept the highest degree of control even though the student-teacher had evinced good understanding. The student-teachers were provided with more information in the second turn even when it did not seem to be necessary. In a similar vein, it was commonly observed that the supervisor kept a TDc5 in both of her turns in cases in which the student-teacher's turn had been coded as *nucd* (no understanding can be determined). In the analysis, these sequences were not analyzed for contingency since the student-teacher's level of understanding was not clear. However, it must be noted that the supervisor exercised the highest degree of control even when she did not appear to have clear information about the student-teacher's understanding. In any case, these sequences could have also been considered non-contingent because the second supervisor's turn seemed not to adapt to the student-teacher's understanding. For example, in the third three-turn sequence (turns #89, 90 and 91) the supervisor explained why the sentence they were discussing was not accurate. The student-teacher provided a correct answer, even in a previous turn (turn #86), but still the supervisor provided the correct answer herself and offered other alternatives to convey the same idea. A TDc5 was kept in spite of the student-teacher's good understanding. Moreover, in the fourth sequence (turns #91, 92 and 93), the student-teacher did not make any comments on the sentences under discussion but the supervisor kept her degree of control by providing more information.

Table 4.13 – Non-contingent interaction fragment (Session 1, fragment 4)

	Step	TDc	SU	Contingency control	Comments
(75)S: And of course I'm going to use as much English as I can, I'll try.					
(76)T: Yes, if you see that the teacher looks at you like <i>ok stop</i> because she's...	3	TDc4			
(77)S: The idea then is again to help them, to be useful to them.			gu		
(78)T: Of course, if you see they don't understand, you have to stop and see.	3	TDc5		NCC	

Steps: 1 (diagnostic question) – 2 (checking diagnosis) – 3 (intervention strategy) – 4 (checking student's learning). **Teacher degree of control:** TDc0: no control/support – TDc1: lowest control – TDc2: low control – TDc3: medium control – TDc4: high control – TDc5: highest control. **Student understanding:** nuch: no understanding can be determined – nu (no / poor understanding) – pu (partial understanding) – gu (good understanding). **Contingency control:** CC (contingent control) – NCC (non-contingent control)

Table 4.14 – Other scenarios found (Session 6, fragment 26)

	Step	TDc	SU	Contingency control	Comments
(79)T is listening	1	TDc1			
(80)S: And then I need to introduce <i>will</i> but revise <i>going to</i> so next Tuesday I'll think of an activity inductively [sic] to present <i>will</i> . And then..., so I'll post this on the board and say: <i>have you been to the theater last weekend?</i> " [sic] or something like that.			Nu		
(81)T: Remember you cannot ask that question with last weekend, especially because they are going to get confused. "recently"	3 3 3	TDc5		CC	
(82)S: <i>Have you surfed the net yet?</i> just to revise <i>yet, ever, never, been</i>			nucd		
(83)T: There's just one problem here, maybe it is not just a problem if they don't really handle the language.	3	TDc4			
(84)S: <i>Have you gone to the cinema?</i>			nucd		
(85)T: What about that? If I say: <i>Have you gone to the cinema?</i> Because that means: <i>where are you? Have you gone to the cinema?</i>	3	TDc5			
(86)S: Yes, <i>have you been to the cinema?</i>			gu		
(87)T: Well, I don't know whether they show this meaning.	3	TDc3		CC	
(88)S: Actually the first class I observed she			nucd		
(89)T: Because you cannot actually ask, unless you're talking to	3	TDc5			

the person on the phone, so maybe you might change this for	3				
(90)S: <i>Been</i>			gu		
(91)T: Yes. <i>Have you been to the cinema?</i> or why don't you try with <i>have you seen the movie?</i> , <i>have you seen anything interesting lately?</i> Right? I would change that.	3 3	TDc5		NCC	
(92)S: Yes, I'll write so that I can			nucd		
(93)T: Yes, please change this because it's a different situation, the meaning is different. Either you say: <i>have you been or have you seen anything interesting at the movies?</i>	3 3 3	TDc5			
(94)S: Yes, that's right. And then the same here: <i>have you been to the supermarket recently?</i>			gu		
(95)T: Or <i>this week</i> . Even <i>today</i> , you can say: <i>Have you been to the market today?</i>	3	TDc5		NCC	
(96)S: I asked that with the household chores.			nucd		
(97)T: Right. <i>Have you made your bed?</i>	3	TDc5			
(98)S: <i>Have you done the cleaning?</i>					
(99)T: Right. So this is what you're going to do and the connection with the future?	1				
(100)S: The connection would be, ok: <i>yes or no</i> . <i>Are you going to?</i> Just to go from the past to the future. I mean, slightly, so and					

<i>Are you going to surf the net when you get home or tonight? So that they move to the future..</i>					
(101)T: all right.					
(102)S: Just this simple activity.					

Steps: 1 (diagnostic question) – 2 (checking diagnosis) – 3 (intervention strategy) – 4 (checking student’s learning). **Teacher degree of control:** TDc0: no control/support – TDc1: lowest control – TDc2: low control – TDc3: medium control – TDc4: high control – TDc5: highest control. **Student understanding:** nuch: no understanding can be determined – nu (no / poor understanding) – pu (partial understanding) – gu (good understanding). **Contingency control:** CC (contingent control) – NCC (non-contingent control)

Finally, another significant scenario was found during the analysis. Almost all the three-turn sequences in which the student-teacher's understanding was coded as either no / poor understanding (nu) or partial understanding (pu) were classified as contingent. In other words, the supervisor adapted her level of control to accommodate and address the weaknesses and/or difficulties that the student-teachers experienced. This was seen in the first sequence in Table 4.14 (turns #79, 80 and 81) when the supervisor increased her support by calling the student-teacher's attention to the mistake she had made and providing the correct answer. Nevertheless, the majority of the three-turn sequences in which the student-teacher's understanding was coded as good understanding (gu) were classified as non-contingent. This was found to occur because the supervisor increased her level of support or kept the same level after the student-teacher had showed a good level of understanding. In the coded example in Table 4.13, this situation can be seen in the third sequences (turns #89, 90 and 91) when the supervisor went on adding extra information after the student-teacher had already demonstrated she had understood. This part of the analysis indicated that the supervisor displayed a tendency to increase her level of support both when necessary to address a given difficulty and when not really necessary when the student-teacher evinced good understanding.

The second section of the results was concerned with showing the analysis of contingency from the perspective of the Contingent Shift Framework. At a micro-level, it aimed to unveil whether the supervisor managed to adapt her level of support to the student-teacher's level of understanding. Similar percentages of contingent and non-contingent sequences were found. A closer look also revealed other patterns. The supervisor's tendency to increase her level of control was observed regardless of whether the student-teachers required it or not. Along with this, most of the supervisor's turns which consisted of intervention strategies involved a high degree of control (either TDc4 or TDc5) whereas the turns which consisted of diagnostic strategies comprised a low degree of control (either TDc1 or TDc2).

4.6 Conclusion of the chapter

This chapter has shown how the scaffolding process unfolded in the one-to-one tutoring sessions between the practicum supervisor and the student-teachers. The macro-level analysis was more qualitative since it focused on describing the steps the supervisor took to scaffold the student-teacher's learning process. Drawing on the MCT, sequences of diagnostic and intervention strategies were found to occur in almost all the interaction fragments analyzed here. Therefore, the supervisor's support in these fragments was considered contingent. The in-depth analysis of the characteristics of the diagnostic, checking the diagnosis and the intervention strategies indicated that the supervisor first elicited complex information by requiring mainly divergent responses as well as fostering higher-level cognitive processes such as creating, analyzing and evaluating. However, this trend was reversed when the time came for the supervisor to provide support. In these cases, the supervisor mainly provided the information herself through three means of support: feedback, explaining and instructing. Fewer instances of support in which the supervisor encouraged the student-teachers to respond to her hints and/or questions were found. The lack of step 4 turns (checking the student's learning) can be assumed to hinder the scaffolding process to some extent since the supervisor could not be sure about how much learning occurred as a result of her help and how appropriate fading and transfer of responsibility were. The first part of the analysis was complemented with a micro-level analysis, which was grounded on the CSF. It aimed to measure scaffolding following set criteria. The results showed similar percentages of contingent and non-contingent sequences as well as the supervisor's tendency to increase her level of support in the second turn. These findings at macro and micro level cater for establishing links between them and moving to a more interpretative analysis, which will be carried out in the Discussion section.

CHAPTER 5

DISCUSSION AND IMPLICATIONS

In the following section, I will first discuss the meaning of the findings presented in chapter 4 and make reference to agreements and disagreements with the results of other research studies. Secondly, I will examine the limitations of this study and offer suggestions for further research. Finally, I will conclude by addressing the theoretical and pedagogical implications of the study.

5.1 Discussion

This research study explored the ways in which a practicum supervisor scaffolded the student-teachers' learning in the one-to-one tutoring sessions in the context of an EFL Teacher Education programme in Córdoba, Argentina. Furthermore, it moved beyond the descriptive stage by analyzing whether and to what extent the supervisor managed to truly scaffold their learning by examining if the degree of control she exercised was adapted to the student-teachers' level of understanding. It also attempted to establish links between the scaffolding modalities employed by the supervisor and current views on supervisory roles and skills.

The discussion section is organized by drawing together the three research questions posed in chapter 1 with the research findings. To start with, it must be noted that this study has captured the interactive nature of scaffolding since the ways and the extent to which the supervisor's actions and utterances served to scaffold the student-teachers' learning-to-teach process in the context of the one-to-one tutoring sessions could only be understood by analyzing them in relation to the student-teachers' actions and utterances. In other words, the role of dialogue in the ongoing interactions between the participants is a crucial component of scaffolding as several researchers contend (Puntambekar & Kolodner, 2005; Stone, 1998a, 1998b; Tharp & Gallimore, 1991; Wertsch, 1979).

The first question to be addressed by the present analysis was how scaffolding is manifested in the one-to-one tutoring sessions. From a more qualitative and general perspective, the findings of this study suggest that the scaffolding process in the tutoring sessions comprises two main steps or phases: a diagnostic phase and an intervention

phase. 96% of all the interactions analyzed had this structure. In the diagnostic phase, the supervisor makes use of different diagnostic strategies such as posing a diagnostic question, reading the student-teacher's work and/or listening to the student-teacher's explanations / choices. The Model of Contingent Teaching distinguishes step 1 turns (diagnostic strategies) in which the teacher diagnoses the student's level of understanding and step 2 turns (checking the diagnosis) in which the teacher checks his/her own understanding regarding the student's background knowledge. Resorting to only step 1 turns or both step 1 and step 2 turns together reveal the supervisor's need to gather essential information in which to ground her decisions as to what type of and how much help or assistance to give the student-teachers. In the tutoring sessions, the use of step 2 turns seems to reinforce the diagnostic phase since it serves to round-off the supervisor's assumptions and/or get a more focused idea of the student-teachers' level of understanding. Therefore, step 2 turns may be subsumed under the diagnostic phase since their purpose resembles and complements that of step 1 turns. The intervention phase is manifested by the use of multiple and simultaneous ways of offering help, which lends support to the use of synergistic scaffolds proposed by Tabak (2004).

In the study described here, teaching cycles which consisted of *13* or *123* steps of the MCT were the most recurrent ones. Consequently, the findings indicate that a diagnostic phase made up of either step *1* or steps *12* is common practice in the tutoring sessions. A similar observation was made by Ruiz-Primo and Furtak (2006) in their study regarding how four middle school Physical Science teachers carried out informal formative assessment. However, other studies have found the use of diagnostic strategies to be scarce (Lockhorst et al., 2010; van de Pol et al., 2011). This difference may be motivated by the expected or defined structure of the one-to-one tutoring sessions in the context researched here. The teachers in Lockhorst et al.'s study, for example, reported that they relied more on their intuitions than on the information collected regarding their learners' thinking processes whereas van de Pol et al. found that one teacher based his help on his beliefs about what is difficult for students and another teacher rarely resorted to diagnostic strategies due to time-constraints. In the tutoring sessions, the student-teachers were expected to explain their choices and the decisions behind lesson planning. In other cases, the supervisor read their lesson plans. There seemed to be a negotiated agreement between the participants as to how the tutoring sessions should proceed. Both activities provided the supervisor with clear

insights into the student-teachers' level of understanding as well as their learning needs. This pre-defined structure of the tutoring sessions gives the supervisor plenty of information on which to draw in order to provide the most adequate amount and type of help or assistance required. The supervisor hardly ever provided support without first gathering information about the student-teachers' level of understanding. This was only found to occur in cases in which the student-teachers initiated the interaction by raising a difficulty or concern they had, which was immediately addressed by the supervisor. To sum-up, the structure and the overall purpose of the tutoring sessions implies an initial stage of diagnosis which pre-determines the function of both the supervisor's and the student-teachers' actions and utterances. In very few cases, this structure is altered when student-teachers introduce a concern.

The fact that complete teaching cycles consisting of steps 1, 2, 3 and 4 were not identified in the one-to-one tutoring sessions analyzed here is a noteworthy finding. The supervisor was found to take great effort to diagnose the student-teachers' current level of understanding and, thus, provide tailored support but she did not check the student-teachers' new learning afterwards. It appears as if the supervisor assumed that teaching necessarily amounted to learning. In other words, the supervisor seemed to take for granted that all the support she provided the student-teachers with by different means led to new understandings and learning. Consequently, we should wonder on what grounds the supervisor decided to fade her support and hand over the responsibility to the student-teachers. Of all the steps of the MCT, the supervisor focused mainly on steps 1 and 3, but the lack of step 4 turns indicates that, in spite of acting contingently, the supervisor did not pave the way for true scaffolding to occur since she did not make sure whether fading and transfer of responsibility were appropriate. A similar finding was reported by van de Pol et al. (2012). These researchers claimed that one of the teachers in their study did not adequately scaffold his students' learning since he neither gathered qualitative diagnostic information nor assessed their learning after receiving support.

The qualitative analysis also sought to reveal the patterns of contingent and non-contingent teaching cycles. Several research studies (Nathan & Petrosino, 2003; Oh, 2005; Ruiz-Primo & Furtak, 2006; van de Pol et al., 2011) have found contingent teaching to be scarce in the student-teacher interactions analyzed. Nevertheless, they have reported different underlying reasons for lack of contingency. While Ruiz-Primo and Furtak found that the teachers seldom used the information collected to support

their students' learning, van de Pol et al. reported that the teachers in their study rarely made use of diagnostic strategies. In contrast to these findings, the present research has found the practicum supervisor to act contingently upon the student-teachers' level most of the time because she usually resorted to diagnostic strategies before providing actual support. In keeping with the findings reported here, both Chin (2007) and Mercer and Fisher (1992) found the teachers to provide their students with contingent support because they showed evidence of offering situated help and thus adjusting to the knowledge base of the students. In the context of the tutoring sessions, contingency can be best understood by resorting to Chin's metaphor, which describes contingent support in student-teacher interactions as "rungs of a cognitive ladder" (p. 837) since the teacher's help builds on the students' prior knowledge and, at the same time, it helps them achieve higher levels of competence. From the perspective of SCT, the use of diagnostic strategies helps teachers determine the students' maturing functions and, therefore, their ZPDs. The situated support they provide them with helps them to become self-regulated and internalize knowledge and skills and reach higher levels of cognitive development since their ZPDs gradually evolve (Chaiklin, 2003). In conclusion, diagnostic strategies seem to be a crucial dimension of scaffolding and a stepping stone for fostering learning and development in the context researched here because they appear to be a necessary condition for providing contingent support, enhancing the student-teachers' potential for learning (Wells, 1999) and gradually handing over the responsibility for teaching on the student-teachers themselves.

As far it can be concluded from the discussion above, 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 (from 1 to 4 strategies per fragment) 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; however, not all the information always proves to be of the same quality. Therefore, the quality of the diagnostic strategies may shed light on the breadth of the information the supervisor managed to collect prior to providing the student-teachers with support. In terms of the kind of response required, the diagnostic strategies she employed elicited a divergent response (45%), no response (31%) or a convergent response (24%). These types of responses are mainly influenced by the kind of diagnostic strategies the supervisor employed since *listening to the student-teacher's explanations / choices* and *diagnostic*

prompts encouraged the student-teachers to express their views and choices and justify them whereas *reading the student-teacher's work* in itself did not elicit any response on the part of the student-teachers. The diagnostic questions that the supervisor posed elicited either a divergent or a convergent response. The kinds of responses observed throughout the interaction fragments show some regularities with either interactions in which the supervisor starts by eliciting more open-ended complex information to then requiring more specific and convergent information or interactions in which she does not elicit any information because she starts to read the lesson plan right away and then fosters divergent and convergent responses, respectively. It must be noted that eliciting no responses in the context of this research should not be considered a negative aspect since it served to collect information about the student-teachers' understanding. In addition, it was mainly found to occur along with other follow-up diagnostic strategies which did elicit information. These patterns can be partly explained by the structure that the tutoring sessions have in this context. The supervisor made use of diagnostic strategies which mainly encouraged the student-teachers to produce complex responses by expressing their views and opinions, explaining their choices and decisions and justifying them, among others, so these strategies can be considered qualitative since the kinds of responses that they elicited provided the supervisor with detailed information and, at the same time, they challenged the student-teachers to produce complex responses.

In order to further enrich the understanding of the role of the diagnostic strategies in the one-to-one tutoring sessions, their quality was analyzed bearing in mind the kinds of cognitive processing required from the student-teachers. 65% of all the diagnostic strategies were found to encourage the student-teachers to engage in the three higher-level cognitive levels: analyzing, evaluating and creating. This could be due to the underlying purpose of the tutoring sessions and the expected interactions between the participants since composing a lesson plan and explaining the choices and decisions behind it can be presumed to occur mostly at the beginning of the interactions when the student-teachers describe and elaborate on the activities, the procedures, the materials, among others aspects of lesson planning and the supervisor listens to them in order to construct an overall picture of their current level of understanding. Diagnostic strategies that fostered the lowest cognitive level, i.e. remembering, were also quite employed (31%) but they were usually found to occur as follow-ups which aimed to gather more specific information to complete the diagnostic phase. This can also be explained by the

fact that the interactions tend to move from the more general to the more specific. As to the quality of the diagnostic strategies, it may be expected that the more complex the cognitive level required from the student-teachers, the more complex and qualitative the kind of information the supervisor would receive. Presumably, collecting qualitative information helps the supervisor make informed decisions about the type and amount of help the student-teachers need and, thus act contingently.

In sum, not only the use of diagnostic strategies but also their quality in terms of both the types of responses elicited and the cognitive level fostered seem to represent a major dimension of true effective scaffolding. In the present study, the supervisor makes use of qualitative diagnostic strategies in order to collect in-depth information. Significant similarities have been revealed by van de Pol et al. (2014) who found teachers to elicit more extensive answers or demonstrations of understanding when diagnosing their students' actual understanding. It must be noted, however, that these teachers had participated in a Professional Development Programme (PDP) on the basis of the MCT. Teachers in the non-scaffolding condition, however, decreased their elicitation of demonstrations of knowledge at post-measurement. Previous research has lent support to the importance of the quality of diagnostic strategies since teachers can only accurately know what to be contingent upon when they elicit detailed explanations and/or information by stimulating their students' active reasoning (van de Pol et al., 2012). To conclude, the findings of this study indicate that qualitative diagnostic strategies are a key component of scaffolding. They challenge student-teachers to produce complex responses and they also place heavy demands on teachers who need to be aware of the breath of their diagnostic strategies in order to carefully and adequately scaffold their learning.

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. When considered in isolation, these strategies can be

equated with different skills the teachers display to help learners accomplish a given task. Although some of these strategies have also been found to occur in the context of teacher education and development by other researchers such as Cartaut and Bertone (2009), Crasborn et al. (2008), Engin (2012), Gwyn Paquette (2001) and Waring (2013), most of these studies also reported on other numerous skills. These differences may be motivated by the nature of the tasks that the students carried out as well as the types and the level of the difficulties they faced and the teachers needed to resolve. For example, some tasks may be more easily explained by demonstrating how they should be done whereas some severe difficulties may require an explanation or instruction rather than questioning or hints. 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.

The second question posed by this research study aimed to examine how the situated features of scaffolding relate to different supervisory roles and skills. The discussion above lends support to the fact that, at the diagnostic stage, the supervisor succeeds in gathering extensive information as she mainly elicits divergent responses and encourages higher cognitive levels whereas at the intervention stage, she herself is in charge of providing most of the information by means of feedback or full explanations and/or instructions. It seems as if at the beginning she challenges the student-teachers the most and at the end she challenges them the least. The kinds of diagnostic and intervention strategies she deployed can be linked to different supervisory roles and skills. In keeping with Hennissen et al. (2008), most of the diagnostic strategies the supervisor employs fall within a non-directive supervisory style since she resorts to asking questions and listening actively as the main means of diagnosing the student-teachers' level of understanding. Along the same lines, prompting and questioning were also reported to be associated with a less directive supervisory style by Gwyn Paquette (2001). On the other hand, the most frequently used intervention strategies fall within a directive supervisory style as the supervisor resorts to, for instance, appraising, giving feedback, expressing one's own opinion, offering strategies and instructing (Hennissen et al., 2008) as well as assessment and advice (Waring, 2013). In addition, since the intervention strategies far outnumber the diagnostic strategies, it may be concluded that a more directive supervisory style prevails in the one-to-one tutoring sessions analyzed here. These findings are consistent

with those reported by Hennissen et al. and Chen and Cheng (2013). Hennissen et al. also found that novice or untrained mentors tended to be more prescriptive. However, the supervisor in this research had considerable experience in mentoring and supervision but seemed to adopt a more directive style at a certain stage in the tutoring sessions, which conflicts with Hennissen et al.'s claims. Adopting a more directive supervisory style may be grounded in the roles that each participant in the learning-to-teach process is expected to play. Copland (2010) claimed that asymmetric power relations characterized feedback situations, so in some contexts the supervisor may be expected to play a more central role since he/she is the more knowledgeable person. These expectations may also be held by pre-service teachers.

To conclude, it follows from the discussion above that there seems to be a reversal of the supervisor's roles from a non-directive to a more directive supervisory style with an emphasis on the latter. Nevertheless, this situation may also be understood as an indication that the kinds and the level of the difficulties and/or weaknesses that the supervisor encountered and needed to address after the diagnostic phase may have prompted a higher degree of teacher intervention. Whether the help offered by the supervisor amounted to too much, too little or the right amount of support goes beyond the discussion of the types of help. This study is concerned with scaffolding, and therefore, a more developmental view of teacher education. Consequently, from this perspective the roles that the supervisor plays in the one-to-one tutoring sessions may be better understood by examining the diagnostic and intervention strategies the supervisor deploys in relation to the level of understanding the student-teachers exhibit.

Last but not least, the third question posed by this research study sought to reveal to what extent the supervisor scaffolds the student-teacher's learning-to-teach process in the one-to-one tutoring sessions. Teachers need to adapt their degree of control to the level of understanding that the students have. The micro-level analysis indicates that about 50% of the sequences analyzed are contingent. Previous findings by Nathan and Kim (2009) and Pino-Pasternak et al. (2010) support the same frequency of distribution of contingent and non-contingent interactions. Van de Pol and Elbers (2013) have reported higher percentages since untrained and trained teachers were found to act contingently in about 60% and 80% of the cases, respectively. The same researchers have also identified other significant patterns: the teachers in their study acted non-contingently because they either kept the same level of control upon poor/good understanding or decreased their control upon poor/partial understanding. They mainly

acted contingently when they increased their control upon poor/partial understanding. The findings regarding contingent interactions are supported by the results of this research as well; however, non-contingency is mainly manifested in the present study by either keeping the same level of teacher control or increasing it when the student-teachers have shown good understanding. Similar results were reported by Pino-Pasternak et al. in the context of parent-child tutoring. These researchers contend that parents tended to underestimate their children's understanding, resulting in more help and little challenge. In the context of this research, the same underlying reason may be presumed but further research needs to be conducted in order to explore why the supervisor increased her level of control when not necessary.

The two frameworks employed for the analysis of scaffolding have revealed some recurrent patterns. To start with, both the MCT and the CSF have contributed to observe that in order to scaffold the student-teachers' learning-to-teach process in the tutoring sessions the supervisor adopted a more learner-centred approach at the beginning of the interactions and gradually shifted to a more teacher-centred approach at the end of the interactions. This is supported by the fact that the diagnostic strategies elicited mainly divergent responses and higher levels of cognitive processing whereas the intervention strategies tended to provide the student-teachers with information rather than elicit it from them. These results are consistent with the ones suggested by the analysis of the CSF. Most of the supervisor's turns which were coded as diagnostic strategies were also coded as either lowest (TDc1) or low (TDc2) degree of control whereas most of the supervisor's turns which were coded as intervention strategies were also coded as either highest (TDc5) or high (TDc4) degree of control. The supervisor was found to elicit information from the student-teachers in the first turn but then provided information herself to help them and elicited little or no information from them. Secondly, the most frequent intervention strategies were feedback, explaining and instructing. In a similar vein, the analysis of the CSF also revealed that the supervisor's help mainly implied a high (TDc4) or highest (TDc5) degree of teacher control. She was observed to have a tendency to increase her assistance to the highest levels in all cases, i.e. upon poor, partial and good understanding. On numerous occasions, she could have opted for a lower degree of intervention by resorting to other strategies such as hints and/or questioning. This presumably abrupt change from a low to a high degree of teacher control may be linked to more directive supervisory roles and skills, and thus a more directive supervisory style. It must be noted, however, that the way in which

scaffolding proceeds in the tutoring sessions in the context of this research may be influenced by the overall purpose and the structure of the tutoring sessions, the kind of tasks the student-teachers undertake as well as the difficulties they experience. In spite of this, this shift from more learner-centred to more teacher-centred interactions may lead us to wonder how fading and transfer of responsibility are finally attained to truly scaffold the student-teachers' learning.

To conclude, scaffolding is mainly related to a developmental view of teacher education, one which stresses the teachers' learning-to-teach process. Therefore, it is essential to understand the supervisor's use of diagnostic and intervention strategies in relation to the student-teachers' level of understanding. Although the percentage of contingent interactions from a more qualitative perspective was much higher than the percentage reported by the more quantitative analysis, the supervisor still acted quite contingently and provided the student-teachers with the adequate amount of help despite showing a tendency to increase her level of control. In sum, the goal of scaffolding was achieved to some extent because the supervisor managed to diagnose the student-teachers' level of understanding and provide contingent support by adapting her help to their understanding. Whether and to what extent fading and transfer of responsibility occurred in this context after high levels of teacher control should be further researched.

5.2 Limitations

This research study attempted to examine the scaffolding process evinced in the ongoing interactions between a practicum supervisor and a group of student-teachers in the context of an EFL Teacher Education programme in Córdoba, Argentina. Consequently, the findings presented here may not be transferred directly to other educational settings due to several reasons:

- a) This study had a case study design. Only one supervisor and a group of pre-service teachers participated in the research.
- b) The one-to-one tutoring sessions exhibit certain defining characteristics as well as group dynamics. The structure of the sessions necessarily implied a stage for the diagnosis of the student-teachers' understanding and knowledge. Other instructional practices may define other kinds of work and interactions.

- c) The participants in different contexts may foster, advocate and/or expect different teacher and learner roles, which may thus influence the scaffolding process.
- d) Cultural factors may play a part in how the teacher-student interactions unfold.

Another important limitation of this study has to do with the data collection instrument employed. The use of audio recordings may have influenced the participants' behaviour in some ways, especially at the beginning of data collection. In addition, since the one-to-one tutoring sessions were audio-recorded by the supervisor herself, some parts of the ongoing interactions between the participants may have been omitted and, thus some useful information may be missing from the analysis.

This study sought to contribute to the current state of research on scaffolding. It mainly explored this phenomenon from the perspective of contingency. However, scaffolding also encompasses fading the support and transferring the responsibility to the learners. A more comprehensive understanding of the extent of scaffolding still remains to be gained.

5.3 Suggestions for further research

Some suggestions for further research directions emerge from the limitations mentioned above:

- This study employed audio-recordings. Further research could benefit from the use of video recordings as well as field notes taken by the researcher while observing the one-to-one tutoring sessions.
- In order to get a more comprehensive understanding of scaffolding in teacher education, other studies may be conducted to explore scaffolding in other formative sessions such as post-observation conferences so as to compare and/or contrast the characteristics of this phenomenon in different situations. Similarly, in-depth explorations of scaffolding may be carried out in other less well-documented contexts to enlarge the body of knowledge in this area.
- Other studies could be conducted to explore scaffolding when students are engaged in other types of tasks which do not necessarily comprise a diagnostic phase or part. In particular, it would be interesting to examine interactions which are initiated by the students themselves. Since they may start by raising different

difficulties and/or concerns, future research should focus on how teachers proceed to scaffold their learning in these cases.

- Further research should attempt to develop operational definitions to measure fading and transfer of responsibility.

As a result of undertaking this study, I found other interesting areas of research:

- In this study, scaffolding was examined as it unfolded during each tutoring session. It was like a snapshot of the process. Further research could involve a longitudinal study with the purpose of studying the scaffolding process across sessions and throughout the learning-to-teach process. For example, the study could have a case study design in which the interactions between the supervisor and one pre-service teacher are researched from the very beginning till the end of the practicum.
- Further research could also involve examining the effects of scaffolding on teacher learning and development in line with the reconceptualised knowledge base of SLTE (Freeman & Johnson, 1998). In addition, it would be useful to analyze the effects of scaffolding on student learning.

5.4 Theoretical and pedagogical implications

From a theoretical point of view, the present study aimed to contribute to the understanding of the construct of scaffolding and its measurement. The two frameworks for the analysis of scaffolding devised by van de Pol (2012) were found to be a good starting point. The Model of Contingent Teaching helps to reconstruct how scaffolding unfolds. However, the operationalization of contingency uptake seems to be rather elusive. Deciding whether and/or to what extent teachers incorporate the students' ideas when giving help is not so easy. I believe a more objective measure of contingency should be attempted in the future. The Contingent Shift Framework proved to be useful to distinguish scaffolding from non-scaffolding instances by measuring the supervisor's degree of control in relation to the student-teacher's level of understanding. All in all, research on scaffolding can benefit from these two measurement instruments as long as researchers keep a flexible stance and do not force the data to fit into pre-defined categories.

This study carries another important implication for teacher educators who are willing to engage in research. Wright (2010) claims that “there is a growing and healthy ‘practitioner research’ culture in SLTE, in which teacher educators are examining the effects of the learning experiences they initiate” (p. 288). Since this research stemmed from my own concerns regarding my role as a supervisor, it is expected to motivate other researchers in the field of SLTE to adopt a reflective stance and further inquire into how teacher educators can learn and develop. A study like this one both explores and informs practice, all of which can be considered to help research advance.

From a pedagogical perspective, several major implications for teacher education and development arise from this study. Firstly, the findings of this research heighten the need for teacher educators to rethink and redefine their roles in the learning-to-teach process in accordance with current views in the field of SLTE. It is clear from this study that there is much more to scaffolding than merely providing students with support and assistance. Consequently, all the characteristics of scaffolding that have been described here in terms of the steps the supervisor takes and the types and quality of both diagnostic and intervention strategies contribute to shaping a more developmental supervisory role (Bailey, 2006) and targeting a collaborative approach to supervision (Wallace, 1991, after Sergiovanni, 1977). Moreover, effectively scaffolding the student-teachers’ learning is in keeping with the main tenets of Socio-cultural theory (Vygostky, 1978), which conceives of learning as a socially mediated process. Teacher educators are also learners of teacher education, so these findings lend support to the reconceptualised knowledge base of SLTE (Freeman & Johnson, 1998). To sum-up, this study attempts to make a contribution in line with recent developments in SLTE.

Secondly, the findings reported here buttress the different frameworks for describing and measuring scaffolding. Consequently, they may be used in teacher education programmes and teacher training and development sessions to complement the theoretical discussions of the concept of scaffolding. In my experience, scaffolding is usually defined from constructivist and socio-constructivist perspectives, but it is seldom explained in practical terms. That is to say, the results of this study can help teacher educators, pre-service teachers and teachers in general realize how they can scaffold their student’s learning. For example, they can keep in mind the steps they may follow, the quality of their diagnostic and intervention strategies, as well as the level at what to intervene in response to the student’s level of understanding. Moreover, becoming aware of what they can actually do to effectively scaffold their student’s

learning can help teachers think over their supervisory and/or advisory roles and continue to develop professionally.

5.5 Conclusion of the chapter

This chapter has elaborated on the meaning of the findings of this study by attempting to provide an answer to the three research questions posed in chapter 1. In addition, the new insights which the present study has yielded have been discussed in terms of the relationships they bear with the results of other studies in the field of scaffolding as well as supervisory roles and skills. Consequently, this chapter has aimed to explain to what extent this research study contributes new knowledge by agreeing, expanding and/or conflicting with other findings. Furthermore, the limitations of the study have been exposed and directions and areas for future research have been provided. Finally, the major theoretical and pedagogical implications of the study have been explored and discussed.

CHAPTER 6

CONCLUSION

In the following section, I will first point to the main conclusions of this research study by examining the evidence collected. Main claims will be restated in order to provide an answer to the three research questions which framed the investigation. Finally, I will conclude this work by offering a reflection on how conducting this research has contributed to my own professional and personal development.

6.1 Concluding remarks

This research study has sought to examine how and to what extent a supervisor scaffolds the student-teachers' learning-to-teach process in the context of one-to-one tutoring sessions in an EFL Teacher Education programme in Córdoba, Argentina. It has also set out to analyze whether the strategies that the supervisor employs to scaffold their learning-to-teach process in the context mentioned above can be related to different supervisory roles and skills. The existing literature has revealed that considerable research on scaffolding has focused on the help or assistance that teachers provide students with, thus overlooking other defining features of the construct. In addition, scant attention has been given to other less well-documented contexts such as the one-to-one tutoring sessions which supervisors hold with the student-teachers as part of teacher education and development. As a result, it was desirable to conduct research on the multidimensional construct of scaffolding. This research study has aimed to provide an answer to the following research questions:

- How is scaffolding manifested in the one-to-one tutoring sessions?
- How are the situated features of scaffolding related to different supervisory roles and skills?
- To what extent does the supervisor scaffold the student-teacher's learning-to-teach process in the one-to-one tutoring sessions?

Scaffolding is a complex and dynamic phenomenon which is gradually shaped by the participants' intervention modalities and, at the same time, it influences the participants' ongoing interactions. What both the supervisor and the student-teachers do and say are closely intertwined since they are two sides of the same coin. Even though on the surface the analysis of scaffolding may seem to focus solely on the supervisors' roles and skills, it necessarily incorporates the student-teachers' perspectives since true scaffolding is characterized by its interactive dialogic nature (Puntambekar & Kolodner, 2005; Stone, 1998a, 1998b; Tharp & Gallimore, 1991; Wertsch, 1979). Consequently, this study has attempted to narrow down a gap in research by including the recipients of the teacher's help (Randall and Thornton, 2001) in the analysis.

In this study, scaffolding is manifested by two different phases: a diagnostic and an intervention one, which are mainly determined by the overall purpose and the structure of the tutoring sessions. The interactions in these sessions unfold in a given way: either the student-teachers start explaining their lesson plans and the choices they have made or the supervisor encourages them to do so by different means such as diagnostic questions or prompts. This stage provides the supervisor with sufficient information to diagnose the student-teacher's level of understanding and determine the amount and kind of help they require in order to later teach the lesson they are discussing. In other words, it helps her determine their ZPD. In the second stage, the supervisor addresses the weaknesses and concerns the student-teachers may have by offering help. It can be concluded by the structure of the tutoring sessions that the help or assistance provided by the supervisor is contingent most of the time since it is grounded in the information she gathered by making use of different diagnostic strategies. The in-depth analysis of the diagnostic and the intervention strategies has revealed that the diagnostic stage seems to pose a greater challenge for the student-teachers since they are required to engage in more complex cognitive processing than at the intervention stage. They are mainly expected to answer divergent questions and engage in analyzing, evaluating and creating. At the intervention stage, the supervisor herself contributes the largest amount of information by means of feedback, explanations and instructions.

The situated features of scaffolding in the context of the one-to-one tutoring sessions analyzed here appear to outline certain supervisory roles and skills since a higher degree of student participation may be associated with a less directive style whereas a higher degree of teacher intervention may be linked to a more directive style.

It follows then that the supervisor seems to adopt a more collaborative supervisory role at the diagnostic stage and a more directive one at the intervention one. However, being more prescriptive at the intervention phase does not necessarily prevent true scaffolding from occurring. From the perspective of the Contingent Shift Framework, about 50% of the interactions analyzed were found to be contingent since the supervisor adapted her degree of control to accommodate the student-teachers' level of understanding. In spite of this trend, scaffolding may have been achieved by eliciting higher degrees of student participation and diminishing the supervisor's degree of control, all of which may have amounted to a more collaborative supervisory role at the intervention stage. In conclusion, scaffolding is mainly related to a more developmental view of teacher education. The findings of this study suggest that there is much more to scaffolding than mere help or assistance, or in other words, certain supervisory roles and skills. Both more directive and less directive teacher interventions can effectively feed into the scaffolding process, and eventually enhance student learning and development. The key to effective scaffolding seems to lie in its contingency upon the students' levels of knowledge and understanding.

This thesis has attempted to contribute to the current state of research in scaffolding since it has lent support to the two frameworks for the analysis of scaffolding proposed by van de Pol (2012). In addition, it has employed both Gallagher and Aschner's (1963) and Bloom et al.'s (1956) taxonomies to enhance the analysis of the quality of diagnostic strategies. Nevertheless, more research is needed to continue improving the quality of these two measurement instruments. In particular, further research should be conducted in order to examine how fading and transfer of responsibility take place and round-off the scaffolding process. All in all, its major contribution has been to examine scaffolding as a multidimensional construct and provide a comprehensive understanding of what scaffolding truly means and entails.

6.2 Final reflection

Carrying out this research study as a requirement for the Master's degree programme in English has proved to be a fruitful endeavour. From a professional point of view, I believe I have enhanced my research skills since I read extensively about and became familiar with other research studies in the field of scaffolding and different research methodologies, among other things. Above all, I managed to attain the goal of

doing in-depth research. Resorting to a tight design was a useful research strategy since I could rely on a set of predefined constructs and analytic categories to approach scaffolding in the context of this research. I took advantage of prior research in the field of scaffolding and attempted to make a contribution by studying all the features of scaffolding since much research had already examined it by only addressing the assistance modalities. In addition, I tried to explore a different setting which is not well-documented in the literature of teacher education: tutoring sessions. Secondly, I reaped enormous gains from studying a training context other than my own. Looking at what another practicum supervisor does and how she holds the tutoring sessions contributed to enrich my own practice and question it further in order to improve day by day. Thirdly, I learnt a lot from engaging in conversation with my thesis advisor, a fellow researcher and Dr. van de Pol. In particular, they helped me see things from a different perspective and questioned my assumptions in order to bring other dimensions into the analysis and improve the quality of my research. On a personal basis, although I felt discouraged at times, I gradually gained confidence and met my expectations. Submitting this thesis has helped me to both further develop professionally and achieve self-actualization.

APPENDIX A

Transcription conventions

Punctuation:

. (**full stop**): end of utterance

, (**comma**): brief pause

... (**three dots**): longer pause

? / ¿? (English / Spanish question marks): a question

Other:

Italics: citing a letter, word, phrase or sentence as a linguistic example or actual words.

"quotation marks": participants are reading from the text

(?): incomprehensible word or phrase

(): inaudible word or phrase

[sic]: previous words / phrases are quoted as they stand in the original

=: the utterance on one line continues without pause where the next = sign picks it up

(T is reading): sounds of teacher reading the lesson plan.

(S is reading): sounds of student reading the lesson plan.

[the cooperating teacher]: previous letter refers to the cooperating teacher's name

[the student-teacher]: previous letter refers to the student-teacher's name

APPENDIX B**Supervisor's informed consent****Consentimiento informado para participar en un estudio**

Fecha:

Nombre:

Investigadora: Prof. María Gimena San Martín

Usted ha sido invitada a participar de una investigación acerca del rol de las sesiones de tutorías como espacios de formación de los futuros docentes. Para tal fin, se grabarán las tutorías con los alumnos que realizan prácticas de la enseñanza, en las que usted participa como docente coordinadora y supervisora. El estudio también incluye la realización de una entrevista en una fecha y horario a convenir.

Toda la información recopilada será estrictamente confidencial. Su identidad será mantenida de manera anónima tanto en relación con su identificación como participante como en la presentación y discusión de los resultados del presente estudio.

Ante cualquier duda, puede contactar a la investigadora:

Prof. María Gimena San Martín

Facultad de Lenguas, UNC

Valparaíso s/n

Correo electrónico: gimenasm@hotmail.com

He leído la información previamente descrita y comprendido la naturaleza y propósito de la investigación. Acepto participar en este estudio de investigación. Doy consentimiento para que los datos obtenidos puedan ser publicados o difundidos con fines investigativos.

Firma del participante

Firma de la investigadora

APPENDIX C

Student-teacher's informed consent

Consentimiento informado para participar en un estudio

Fecha:

Nombre:

Investigadora: Prof. María Gimena San Martín

Usted ha sido invitado a participar de una investigación acerca del rol de las sesiones de tutorías como espacios de formación de los futuros docentes. Para tal fin, se grabarán las tutorías en las que usted participa junto a la docente coordinadora y supervisora de prácticas de la enseñanza.

Toda la información recopilada será estrictamente confidencial. Su identidad será mantenida de manera anónima tanto en relación con su identificación como participante como en la presentación y discusión de los resultados del presente estudio.

Ante cualquier duda, puede contactar a la investigadora:

Prof. María Gimena San Martín

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Valparaíso s/n

Correo electrónico: gimenasm@hotmail.com

He leído la información previamente descrita y comprendido la naturaleza y propósito de la investigación. Acepto participar en este estudio de investigación. Doy consentimiento para que los datos obtenidos puedan ser publicados o difundidos con fines investigativos.

Firma del participante

Firma de la investigadora

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