

UNIVERSITY OF JYVÄSKYLÄ

**“VOIDAAN YHES KATTOO!”:
SCAFFOLDED ASSISTANCE PROVIDED BY A TEACHER
IN AN EFL CLASSROOM**

A Pro Gradu Thesis

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Tutkielman tarkoituksena on soveltaa L. S. Vygotskyn sosiokulttuurisen teorian käsityksiä opettamisesta ja oppimisesta kouluopetuksen tutkimiseen ja selvittää, onko opettajan mahdollista ohjata oppilaita luokassa vähitellen kohti itsenäistä työskentelyä. Aikaisemmin ilmiötä on tutkittu pääasiassa koeolosuhteissa, mutta tässä tutkielmassa keskitytään nimenomaa vieraan kielen eli englannin opetukseen luonnollisessa luokkahuoneympäristössä. Tutkielmassa vastataan kysymyksiin: 1) Soveltuuko Vygotskyn sosiokulttuurinen teoria opettajajohtoisen luokkahuoneopetuksen tutkimiseen? 2) Millaisia oppimista ohjaavia ja tukevia verbaalisia funktioita voidaan erottaa opettajan diskurssissa luonnollisessa luokkahuoneympäristössä? 3) Millaisia eroja kyseisissä funktioissa ilmenee niiden laadun ja määrän osalta? Koska kyseessä on tapaustutkimus, joka keskittyy yhden englannin kielen opettajan yhteen opetusjaksoon, tutkielma on pääosin kuvaileva.

Tutkimusmateriaali koostuu 11 nauhoitetusta ja tutkimusta varten litteroidusta peruskoulun kahdeksannen luokan englannin tunnista, joista analyysia varten valittiin 16 kieliopin opetustuokiota. Valituista opetustuokioista löydettiin kaksi erilaista rakennetta, joista edelleen identifioitiin 15 ensisijaista funktioita opettajan käyttämille opetusstrategioille. Perustuen analysoituun materiaaliin erotettiin neljä erilaista opettajan ohjaavan opetuksen tasoa. Koko analyysin perusteena on Vygotskyn sosiokulttuurinen teoria ja ennen kaikkea Vygotskyn kehittämä *lähikehityksen vyöhyke* (the Zone of Proximal Development, ZPD), jonka mukaan lapsen kehitystason alaraja määrittyy sen mukaan, mihin lapsi itsenäisesti pystyy ja yläraja sen mukaan, mihin lapsi pystyy ohjauksen avulla. Vygotskyn mukaan tehokkaan lähikehityksen vyöhykkeelle suuntautuvan opetuksen tarkoituksena on auttaa oppilasta omaksumaan uusi asia opettajan kanssa käydyn dialogin avulla.

Tutkimuksen tuloksista ilmenee, että myös opettajajohtoisessa luokkahuonetilanteessa opettaja kykeni mukauttamaan käyttämänsä opetusstrategiat vastaamaan oppilaiden tietotason. Alimmalla ohjaavan opetuksen tasolla opettajan ensisijainen tehtävä on herättää oppilaiden kiinnostus annettuun tehtävään. Toisella ja kolmannella tasolla opettaja ohjaa erilaisin verbaalisin keinoin oppilasta kohti ongelman ratkaisua. Lähestyttäessä neljättä eli ylintä tasoa opettajan käyttämät strategiat vähenevät, sillä oppilas säätää itse omaa toimintaansa. Opettajan ohjauksen havaittiin olevan asteittain muuttuvaa, motivoivaa ja kaikille oppilaille suunnattua. Useimmiten opettajan ohjaus oli myös riittävää oppilaiden tietotason nähden.

Asiasanat: scaffolded assistance. Zone of Proximal Development. sociocultural theory. Vygotsky.

CONTENTS

1 INTRODUCTION.....	7
2 SOCIOCULTURAL THEORY.....	10
2.1 Overview of Vygotskian sociocultural theory.....	10
2.2 Sociocultural perspectives on second language learning.....	12
3 VYGOTSKIAN THEORY AND THE ZONE OF PROXIMAL DEVELOPMENT.....	14
3.1 Social interactions and the origins of individual mental functions.....	14
3.1.1 Appropriation.....	15
3.1.2 The Zone of Proximal Development.....	17
3.1.3 Regulation and the Zone of Proximal Development...	21
3.2 Elaborating the Zone of Proximal Development.....	23
3.2.1 Situation definition.....	24
3.2.2 Intersubjectivity.....	24
3.2.3 Semiotic mediation.....	26
3.3 Process of scaffolding.....	26
3.3.1 Scaffolding.....	27
3.3.2 Mechanisms of effective help.....	29
3.3.3 Limitations of the metaphor.....	31
3.3.4 Stages of scaffolded learning.....	32
4 PREVIOUS STUDIES WITHIN THE VYGOTSKIAN FRAMEWORK.....	35
4.1 Previous L1 studies within the Vygotskian framework.....	36
4.2 Previous L2 studies within the Vygotskian framework.....	45
4.2.1 Focus and research problems.....	51
4.2.2 Subjects.....	51
4.2.3 Procedure.....	52
4.2.4 Data and analysis.....	53
4.2.5 Main results.....	54

4.3 Implications of previous studies.....	55
5 THE PRESENT STUDY.....	57
5.1 The approach in the present study.....	57
5.1.1 Research questions.....	58
5.2 Data collection.....	59
5.3 Subjects.....	60
5.4 Data description.....	60
5.5 Unit of analysis.....	63
5.6 Methods of analysis.....	63
5.6.1 Transcription	64
5.6.2 Episode patterns.....	64
5.6.3 Primary functions of the scaffolding strategies.....	66
5.6.4 Levels of scaffolded assistance.....	68
6 ANALYSIS OF DATA: SCAFFOLDED ASSISTANCE PROVIDED BY THE TEACHER.....	69
6.1 Episode patterns.....	69
6.2 Levels of the Zone of Proximal Development and scaffolded assistance.....	72
6.2.1 The first level of scaffolded assistance.....	72
6.2.2 The second level of scaffolded assistance.....	80
6.2.3 The third level of scaffolded assistance.....	90
6.2.4 The fourth level of scaffolded assistance.....	96
6.3 Variation in the means of scaffolding.....	104
6.3.1 Variation in the nature of scaffolding.....	104
6.3.2 Variation in the amount of scaffolding.....	110
7 DISCUSSION AND CONCLUSIONS.....	118
7.1 Methods of analysis.....	118
7.2 Value of Vygotskian theory for L2 research and its applicability to teacher-fronted whole-class L2 interactions.....	121

7.3 Scaffolded assistance provided by the teacher at the four levels of scaffolded learning.....	122
7.4 Variation in the nature and amount of scaffolding.....	125
7.5 Limitations.....	125
7.6 Suggestions for future research.....	129
BIBLIOGRAPHY.....	130
APPENDICES.....	140
Appendix 1: Transcription conventions.....	140
Appendix 2a: Episode 11: New grammar items.....	141
Appendix 2b: Episode 14: Grammar exercises.....	145
Appendix 3: Seating arrangement in the class	154



1 INTRODUCTION

In modern societies, the role of foreign languages is important, and, thus, second language (L2) classrooms have been extensively studied. Assistance provided by a L2 teacher in the classroom is more than getting students on task and presenting content in organised ways. It is also collaborative interaction between a teacher and students. Such interaction is much more subtle than many earlier studies on L2 classrooms have implied.

Chaudron (1988) distinguished four different research traditions in research on L2 classrooms, though, as he pointed out, few researchers followed only one tradition. The first, the psychometric tradition, was concerned with comparison of the effects of different instructional methods on the development of students' learning. Accordingly, learning outcomes were measured by standardised proficiency tests. In the late 1960s and early 1970s studies in this tradition began to investigate relationships between different classroom processes and language achievement (eg. Politzer 1980). The second tradition, interaction analysis, which developed in the mid-1960s, typically investigated the extent to which learners' behaviour was a function of teacher-controlled interaction (eg. Fanselow 1977, Allwright 1980). Coding classroom interactions in this research tradition involved various observation systems and schedules, for example, a category system for coding specific events every time they occurred or a rating system for coding the frequency of specific events. The third tradition, discourse analysis, served as a device for systematically describing interactions in classrooms in linguistic terms. Building on studies on subject classrooms by Bellack et al. (1966) and Sinclair and Coulthard (1975), discourse analysis focussed not only on the functions of the individual turns of speech, but also on the larger units these turns of speech formed together. Later on, discourse analysis was also adapted to research on L2 classrooms (eg. Chaudron 1977, Ellis 1980, van Lier 1988). The fourth, the ethnographic tradition, which arose from sociological and anthropological traditions, investigated classrooms as cultural systems. It used observation and description as its methods in examining classroom interactions. In bilingual classroom research this tradition has been particularly evident (eg. Wong-Fillmore 1985).

The idea that learning is a collaborative process, and socially constructed through interaction was already familiar to L2 ethnographers. However, some researchers began to pay even more attention to the linguistic details of expert-novice interactions and the learning process in different contexts. This relatively new way of thinking, which is taken up in the present study, has spurred a growing deal of interest in the 1990s when the learning theory advocated by the Russian researcher Lev. S. Vygotsky (1986-1934), that is, sociocultural theory, was introduced to research on L2. The studies by Lantolf (eg. 1994), Brooks (eg. 1994) and Donato (eg. 1994) have been especially influential in this respect.

In spite of a growing number of studies in the field, there are areas in which research has hardly begun. While the process by which an expert helps a novice to learn how to perform new tasks given, that is, the process of scaffolding, has been studied considerably in one-to-one interactions, the scaffolding process in teacher-fronted interactions in a naturalistic whole-classroom setting has received much less attention. There is thus a need for further empirical work on this issue from a Vygotskian perspective.

The present study aims to investigate the applicability of the Vygotskian ideas of the Zone of Proximal Development (ZPD) and scaffolding to teacher-fronted whole-class interactions in general. More specifically, in order to shed light on scaffolding in classrooms the present case study seeks to describe the primary functions of the scaffolding strategies provided by one L2 teacher in teacher-fronted lessons in a naturalistic whole-classroom setting. In addition, the analysis seeks to uncover the variation in the nature and amount of scaffolding found in L2 lessons.

The data of the present study consisted of 11 English lessons instructed by a secondary school teacher. All the lessons were recorded in a grade 8 classroom in spring 1999. For the purposes of the present study 16 episodes were chosen for analysis. For the most part, the data were analysed qualitatively. Firstly, the lessons were transcribed. Secondly, the Focus-Build-Summarise pattern (adapted from Jarvis and Robinson 1997) and primary functions (adapted from Sinclair and Coulthard 1975) were identified in the episodes chosen for the purposes of further analysis. Thirdly, in order to investigate the scaffolding strategies provided by the teacher in L2 lessons four

different levels of scaffolded assistance based on the present data were identified (adapted from eg. Wood et al. 1976, Wood 1980, Aljaafreh 1992, Tharp and Gallimore 1993). Fourthly, variation in the nature and amount of scaffolding was examined by comparing the functions of the strategies. The undertaking of the present study by using the methods mentioned above was greatly motivated by the fact that no L2 studies from a Vygotskian perspective have so far been conducted using the same research design and methods.

The present study is organised into seven chapters. To begin with, sociocultural theory is discussed in Chapter 2. Chapter 3 discusses the central concepts of the Vygotskian framework. In Chapter 4 some of the previous studies on the scaffolding process from a Vygotskian perspective are reviewed. The implications of these studies for the present study are also discussed. Chapter 5 describes the data collection procedure. The aims and the specific research questions addressed and the methodology used in the study are also outlined. Chapter 6 presents the results of the empirical study. Finally, the results of the study as well as its limitations and suggestions for further study are discussed in Chapter 7.

2 SOCIOCULTURAL THEORY

Developmental theories can roughly be divided into two categories based on their views of the role of social interaction in cognitive development. In other words, the distinguishing factor is whether a theory's explanation of ontogenesis begins with the individual or with the social phenomena. As Wertsch et al. (1984:150) point out, theories of an "individualistic perspective" suppose that the explanation for the individual's psychological development begins by focusing on the individual. In contrast, "social perspective" theories emphasise social phenomena in examining the individual's ontogenesis.

The Vygotskian sociocultural approach, or, more generally, the sociocultural theory of the Vygotskian school, which is an important example of social perspective theories, is discussed in this chapter. Section 2.1 presents an overview of Vygotskian sociocultural theory and Section 2.2 examines sociocultural perspectives especially on L2 learning.

2.1 Overview of Vygotskian sociocultural theory

Though, as Wertsch (1994:203) remarks, Vygotsky seldom, if ever, used the term *sociocultural* himself, using instead the terms *cultural historical* and *sociohistorical*, it may often be taken as a code word for Vygotskian theory. As DiCamilla and Antón (1997:610) point out, the framework of sociocultural theory is based primarily on the work of Vygotsky (e.g. 1978, 1979b) and his adherents, especially Leont'ev (e.g. 1981a, 1981b) and Luria (e.g. 1976, 1979, 1981). The sociocultural perspective, according to a definition by Ochs (1987:307), is grounded in the notion "that meaning is embedded in cultural conceptions of context and that accordingly the process of acquiring language is embedded in the process of acquiring culture". Accordingly, Vygotsky, who considered himself an educator as well as a psychologist, emphasised the social origins of language and thinking.

Firstly, for Vygotsky, the approach to the mutuality of individual and environment involves different embedded levels of development (Wertsch 1985a, Mitchell and Myles 1998). The level of ontogenesis has to do with

changes in thinking and behaviour in the course of the history of individuals. Phylogenetic development involves the changes over successive generations. Sociocultural development is the changing cultural history that leaves a legacy to the individual in the form of technologies. Finally, Vygotsky called for research in microgenetic development, or the moment-to-moment learning by individuals in different problem contexts. Furthermore, microgenetic development is built on the individual's genetic and sociocultural background. According to Wertsch and Hickmann (1987:252), Vygotsky's interest in microgenesis is based on his claims about the necessity of using process analyses, instead of object analyses, in developmental studies (see Section 3.1.2). Importantly, in this system of different levels the roles of the individual and the social world are seen interrelated.

At the most general level, according to Wertsch (1993, 1994), a sociocultural approach investigates the ways in which human action, including mental action, is connected to the cultural, institutional and historical settings in which it occurs. The writings of Marx and Engels, as Lucy and Wertsch (1987:68) further point out, led Vygotsky to emphasise the social origins of **human** consciousness. Thus, for Vygotsky, in the tradition of Marx and Engels, **the mechanism** of individual development is rooted in society and culture (see Section 3.1).

Another point from Marx and Engels that is essential to Vygotskian theory, according to Lucy and Wertsch (1987:69), is that human social processes are mediated by tools and signs. The influence of Marx and Engels is especially evident when Vygotsky examines technical tools in a labour activity. However, Vygotsky's main contribution, as Lucy and Wertsch (1987:69) further point out, came in connection with psychological tools or signs, of which the most important is language. For Vygotsky, signs are used to organise and plan one's own actions or the actions of others (see Section 4.2.3).

Finally, as Lantolf and Pavlenko (1995:108) mention, the goal of sociocultural theory is to illuminate how people organise their minds for carrying out activities. Although Vygotsky focussed primarily on the notion of the higher mental functions, several researchers within the Vygotskian framework, as Davydov and Radzikhovskii (1985:60) remark, argued that his ideas are best understood in a framework that takes different units as its object

of study. Especially, Leont'ev (1981b) has elaborated Vygotsky's concept of activity as the basic analytic unit. He distinguishes activities that are linked to motives, goal-directed actions and operations as levels of analysis in his activity theory (Leont'ev 1981b:37-71, Lantolf and Appel 1994:16-22). Furthermore, activity theory concerns the issue of individual development, activity and the social context. The theory specifies that studying the motives and the relationship of these motives with goal-directed actions and their operations is necessary in order to explain the activity of individuals. This principle of the theory has an important effect on research on L2 learning.

2.2 Sociocultural perspectives on second language learning

As Ohta (1995:94) remarks, many L2 acquisition theories (eg. Krashen 1982, Long 1985) do not acknowledge the essential relationship between social interaction and L2 development, but see the acquisition process as linear. Though sociocultural theory has come to the fore in L2 research in the 1990s, it is still, as Lantolf points out when interviewed by Coughlan (1995:140), "kind of the new kid on the block". As Lantolf further points out, sociocultural theory has gained popularity in the field of L2 acquisition as well as in that of education.

Central to L2 researchers working within a sociocultural theoretical framework is the idea that knowledge does not exist just as an individual possession, but, more importantly, it exists first as a social entity (Mercer 1995:66). In other words, learning is seen first as social and then as individual. Accordingly, L2 development progresses through social interaction where learners are active participants in the process through which they acquire the L2 (Ohta 1995:94). Thus, the L2 learning process is seen as a joint activity (see Sections 3.1 and 3.3).

Moreover, sociocultural theory views language as a tool of thought. As Mercer (1995:67) puts it, "talk is used to get things done". According to Brooks and Donato (1994:264), Vygotskian sociocultural theory gives thus a richer understanding of L2 learning by focussing on what learners try to accomplish through their dialogues in L2 classrooms (see Chapter 3). For

Vygotsky, as Lantolf and Pavlenko (1995:110) remark, L2 acquisition entails more than mastering linguistic properties. It involves dialectic interaction that is first developed interpersonally and then internalised by the individual.

Most importantly, as Rogoff (1990:14) points out, Vygotsky's theory involves the idea that learners' collaboration with more skilled partners allows them to take more mature approaches to problem solving in social interaction than alone. This scaffolded assistance that an expert can provide through dialogue in order to help a novice make sense of a task given is one of the main theses in Vygotsky's sociocultural theory. In addition, this idea involves a distinction between actual and potential levels of development, according to which effective instruction should be provided (see Sections 3.1 and 3.3).

Finally, activity theory has an important effect on research on L2 learning. According to Mitchell and Myles (1998:153), on the account of this theory, L2 researchers emphasise that individual interactions are experienced differently by participants. In other words, personal goals and levels of skills that the participants bring to the activity vary. Besides, these elements change also in the course of collaboration. A sociocultural approach to L2 learning **attempts** to take this dynamic nature of interaction into account by focussing on the process and not merely on the end-products. In Chapter 3 the specific terms and features of Vygotskian theory that have an impact on research on L2 learning are discussed in more detail.

3 VYGOTSKIAN THEORY AND THE ZONE OF PROXIMAL DEVELOPMENT

Vygotskian theory and especially Vygotsky's notion of the Zone of Proximal Development (ZPD) have received considerable attention among researchers. While most early studies have concerned L1 learning, there has recently been a growing interest among L2 researchers in this concept. Besides, Vygotsky's ideas have been applied to studies on a great number of different issues, including intelligence testing (eg. Brown and Ferrara 1985, Campione, et al. 1984), memory (eg. Ellis and Rogoff 1982, Rogoff and Gardner 1984), problem solving (eg. Wertsch and Hickmann 1987, Saxe et al. 1984), and, as was mentioned above, L1 and L2 acquisition (eg. Rogoff et al. 1984, Aljaafreh 1992).

This chapter examines the theoretical background for the approach of the present study. Firstly, some key principles of Vygotskian theory are described. Section 3.1 examines the social origin of individual mental functions introducing the notions of *appropriation*, *the ZPD* and *regulation*. Secondly, in Section 3.2 Wertsch's work on elaborating the ZPD is discussed with the notions of *situation definition*, *intersubjectivity* and *semiotic mediation*. Thirdly, Section 3.3 examines the process of scaffolding describing the metaphor of *scaffolding* and the mechanisms of effective help. In addition, some limitations of the metaphor are discussed and stages of scaffolded learning are introduced.

3.1 Social interactions and the origins of individual mental functions

Vygotsky recognises the tensions between the individual and society. As Wertsch (1985a:58-77, 1991:18-46) remarks, Vygotsky's assumption that the understanding of individual mental functioning begins with the understanding of social life involves all his work. Fundamental to Vygotskian theory (Vygotsky 1978, 1981) is the thesis that the development of human cognitive functions proceeds from the social, or interpsychological plane, to the individual, or intrapsychological plane. Furthermore, this development is

gained through the use of symbolic, socioculturally developed tools, the most important one of which is language. As Lucy (1988) points out, language stands at the centre of Vygotsky's psychology as the mediational means by which the developmental transformations occur. Vygotsky was critical of many psychological theories of his time, such as that of Piaget's, who claimed that the individual was to be given analytic priority (eg. Wertch 1985a:42, 61-3, van der Veer and Valsiner 1991 and Wertsch and Bivens 1992). Instead, Vygotsky's aim was to show that individual functions emerge from social life (eg. Vygotsky 1978, 1979, 1981, 1987, Luria 1981, Wertsch 1979b, 1981, 1985a, 1985b). This idea can be found in his *genetic law of cultural development* of higher mental functions:

Any function in the child's development appears twice, or on two planes. First it appears on the social plane, and then on the psychological plane. First it appears between people as an interpsychological category, and then within the child as an intrapsychological category. This is equally true with regard to voluntary attention, logical memory, the formation of concepts, and the development of volition...It goes without saying that internalization transforms the process itself and changes its structure and functions. Social relations or relations among people genetically underlie all higher functions and their relationships. (Vygotsky 1981:163.)

This law synthesises the idea that mental functioning occurs first between people in social interaction and then within the individual on the psychological or intrapsychological plane.

In this section the idea of the social origins of individual mental functions is discussed and three important notions of the Vygotskian theory, that is, *appropriation*, *the Zone of Proximal Development* and *regulation*, are examined. These concepts are central in discussing the social nature of the learning process in the Vygotskian tradition.

3.1.1 Appropriation

This section deals with the term of internalisation, or more properly for a sociocultural theory, *appropriation*, which is a key concept for explaining how

the development of human cognitive functions from an external to an internal plane is made possible. With this concept Vygotskian theory (1978:56) refers to the process of “internal reconstruction of an external operation”. Furthermore, according to Zinchenko (1985:106) this process is “the bridge between external and internal activity”. While accepting Piaget’s idea of children actively constructing their knowledge through interaction with the environment, Vygotsky’s colleague Leont’ev (1981b) uses the concept of appropriation instead of Piaget’s concept of assimilation. As Newman et al. (1989:62) point out, with this new concept Leont’ev makes a distinction between the biologically and sociohistorically oriented theories.

As was noted by Zinchenko (1985:94-118), the Vygotskian approach rejects the assumption that the structures of external and internal activity are identical. In addition, the assumption that these structures are unrelated is rejected. When formulating his genetic law of cultural development, Vygotsky (1981:163) asserts that “it goes without saying that internalization transforms the process itself and changes its structure and function”. The following words by Leont’ev (1981b:57) crystallise the essence of the process of appropriation: “The process of internalization is not the transferal of an external activity to a **preexisting**, internal ‘plane of consciousness’: it is the process in which this internal plane is formed”.

Moreover, the Vygotskian approach takes account of the central role of sign operations in the process of appropriation (Diaz et al. 1990:135, Wertsch and Stone 1985:163-4). In this process, the use of external signs themselves, for example language, is also reconstructed. Wertsch and Stone (1985:165) point out that the role of “semiotic mediation” is tied to the transformation process (see Section 3.2.3). Furthermore, they claim that internalisation involves the process of gaining control over external sign forms.

Thus, when discussing the Vygotskian approach to the process of internalisation Wertsch (1985a:66-7) argues that Vygotsky’s account of internalisation cannot be fully understood without his semiotic analysis. Further, in his discussion Wertsch (1985a:66-7) mentions four major points on which Vygotsky’s approach is grounded:

1) Internalization is not a process of copying external reality on a preexisting internal plane; rather, it is a process wherein an internal plane of consciousness is formed. 2) The external reality at issue is a social interactional one. 3) The specific mechanism at issue is the mastery of external sign form. And 4) the internal plane of consciousness takes on a “quasi-social” nature of its origins.

3.1.2 The Zone of Proximal Development

Transformation of external or social functions into internal or mental functions is a dynamic process of qualitative change. In this context the notion of *the Zone of Proximal Development*¹ (ZPD) has a crucial role in Vygotskian theory. Newman et al. (1989:68) point out that the ZPD is important because it is within the ZPD, and through the ZPD, that children appropriate those forms of mental functioning valued by a culture. Furthermore, Lantolf and Appel (1990:10) note that critical to Vygotsky’s theory is that this process of development concerns at least two people, one of whom is an expert and one who is a novice in regard to an act in question. As was mentioned in Section 3.1.1, equally important is the fact that speech mediates this interactive process between the two participants.

It was in the course of applying his theoretical concepts to practical psychological and educational problems that Vygotsky introduced the idea of the ZPD. Many of his comments about the ZPD derive from the criticism of psychological testing (Griffin and Cole 1984:46, Campione et al. 1984:78-9, Wertsch and Stone 1985). Vygotsky criticises psychological and educational practises that determine children’s mental development only on the basis of the level of individual, independent functioning and orient educational practices toward this level. In addition, Vygotsky argues that standardised psychological tests take into account only the development that is completed (Griffin and Cole 1984:46). Thus, according to him these tests focus on the level where a child has been and they forget his or her potential growth. Instead, according to Vygotsky (1978:84-85) “learning and development are interrelated from the

¹ The Russian word *blixhaishego* is the superlative form of the word for *close*. Thus, the Russian term *zona blizhaishevo razvitiya* means literally *zone of the nearest development* (Rogoff and Wertsch 1984:1).

child's very first day of life" and, thus, he asserts that to discover the relations between learning and development two levels must be determined, namely, the *actual developmental* level and the level of *potential development*. The former characterises a novice's ability to perform different tasks independently and, fundamentally, refers to a novice's level of mental development "that has been established as a result of certain already completed developmental cycles" (Vygotsky 1978:85). The latter level of development characterises those functions that a novice can do with the help of, or in collaboration with, a more experienced member of society. Consequently, Vygotsky (1978:86-91) asserts that it is important to take the level of potential development into account, as it varies for every individual from actual development. Furthermore, the potential level of development indicates a novice's mental development more accurately than the actual developmental level. The distance between these two levels, namely, a novice's individual capacity and the capacity to perform with assistance, makes the boundaries of the ZPD. Vygotsky (1978:86) defines the ZPD 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.

Additionally, as Tudge (1990:157) remarks, Vygotsky gives the concept of the ZPD a maturational slant. Vygotsky emphasises the fact that on the one hand the actual level of development defines the end product of development, that is, those functions that have been matured, and on the other hand the ZPD defines those functions that are still in the process of maturation:

The zone of proximal development defines those functions that have not yet matured but are in the process of maturation, functions that will mature tomorrow but are currently in an embryonic state. These functions could be termed the "buds" or "flowers" of development rather than the "fruits" of development. The actual developmental level characterizes mental development retrospectively, while the zone of proximal development characterizes mental development prospectively. (Vygotsky 1978:86-7.)

In other words, as Hickmann (1985:236) notes, the actual developmental level indicates those psychological functions that are consolidated and that enable the novice to act independently in a given situation. Conversely, as she further remarks, the potential developmental level defines those functions that are not yet matured enough to enable the novice to act independently. These last-mentioned functions can be elicited by means of assistance provided by others, for example, by clues or leading questions.

Moreover, distinguishing a novice's actual developmental level from his or her potential developmental level has profound implications for educational practices (Gallimore and Tharp 1990:177, Tharp and Gallimore 1993:31). As a result, the Vygotskian approach is also concerned with the appropriate level of collaborative functioning for a novice. Rogoff and Wertsch (1984:3) note that in terms of instructional practices and their relationship to development Vygotsky argues that for a child to profit from a joint cognitive activity and an expert's assistance, these should be geared appropriately toward his or her potential level of development. Hence, the actual developmental level of a novice will be moved forward. Besides, Vygotsky (1978:89) criticises the instruction that is oriented toward stages already completed, while it does not take the ZPD into account and try to assist the novice to what he or she could do in future. In other words, according to Vygotsky, instruction that orients toward the actual development is ineffective. He argues instead, that "instruction is good only when it proceeds ahead of development" (Vygotsky 1956:278, quoted in Wertsch and Stone 1985:165). Furthermore, in Vygotskian terms teaching is good only when it "*awakens and rouses to life those functions which are in a stage of maturing, which lie in the zone of proximal development*" (Vygotsky 1956:278¹, quoted in Wertsch and Stone 1985:165, italics in original). As Villamil and De Guerrero (1998:495) remark, the ZPD is, thus, the dynamic space where latent abilities are sensitive to development with the appropriate assistance from another person. Due to these characteristics of the ZPD, Wood and Middleton (1975) call it *a region of sensitivity to instruction*. Besides, it is within the ZPD that transformation from

¹ Rogoff and Wertsch (1984) point out that the Russian word *obuchenie*, which covers the notions of teaching as well as learning, is translated as *instruction*, while it has no precise equivalent in English.

the interpsychological to intrapsychological plane takes place. In Cole's (1985:146) words "culture and cognition create each other" in this area.

In consequence, Tharp and Gallimore (1993:31) derive a general definition of teaching, according to which teaching includes assisting performance through the ZPD and this assistance is offered at points in the ZPD at which it is required. In other words, effective instruction within the ZPD is provided to novices by more capable others in a joint activity. As was mentioned above, effective instruction should concentrate on the functions that are still developing, or at the potential developmental level, and not on the ones that are already developed, or at the actual developmental level. As Aljaafreh (1992:72) and Aljaafreh and Lantolf (1994) point out, effective instruction should encourage novices to function at levels higher than what they are capable of doing at that particular moment. The transfer of responsibility from an expert to novice is also one of the crucial characteristics of effective instruction (see Section 3.3). The aim is to help a novice to function independently in the final stages of development.

As was mentioned above, the Vygotskian ideas have recently also been **applied** to L2 acquisition. Language learning occurs when learners participate in collaborative activities within the interactively constituted social and cognitive place, that is, within the learners' ZPDs (Vygotsky 1987, Newman and Hozman 1993). As Ohta (1995) and Villamil and De Guerrero (1998) point out, the notion of the ZPD has been found to be useful also for L2 purposes. Ohta (1995:96) adapts the concept to L2 learning and teaching as follows:

For SLA purposes, I would like to conceptualize the ZPD as the difference between the L2 learner's developmental level as determined by independent language use, and the higher level of potential development as determined by how language is used in collaboration with a more capable interlocutor.

Furthermore, as Villamil and De Guerrero (1998) remark, the traditional interpretation of the ZPD includes the presence of the more capable expert and, thus, includes the suggestion of the unidirectional nature of assistance. In contrast, the mutual help in novice-novice interactions has been studied by

many L2 researchers within sociocultural theory (eg. Brooks and Donato 1994, Donato 1994, Ohta 1995 and DiCamilla and Antón 1997).

3.1.3 Regulation and the Zone of Proximal Development

As was pointed out in Section 3.1.2, the ZPD can often be observed when two or more people with unequal expertise are jointly accomplishing a task. An expert is a “go-between” between a novice and a task. Schinke-Llano (1993:124) suggests that in certain ways the ZPD can be regarded as reminiscent of Krashen’s (1982) $i+1$ construct. Furthermore, this idea of an expert and a novice working in collaboration includes the concept of *regulation*, or control, which is also a central notion of Vygotskian theory. This concept is examined in this section.

Communication in L2 research has often been presented by the “conduit metaphor”, according to which communication essentially includes the transmitting of messages back and forth. However, Lantolf and Frawley (1983:426) argue that from a Vygotskian perspective communication has “nothing to do with the transfer of information, rather it has everything to do with how individuals maintain their individuality; i.e., self-regulation in presence of other self-regulated individuals”. Furthermore, Frawley and Lantolf (1984:143) argue that the purpose of speaking is to control the objects, other humans and the self. In Vygotskian theory there are three types of regulation or ways to reach control. The classifications distinguished by Wertsch (1979a:79-98, 1979b:1-22, 1985a:158-183) are shown in Table 1:

Table 1. Stages of regulation outlined by Wertsch (1979a, 1979b, 1985a)

Object-regulation	A novice’s understanding of the situation is limited and he or she is controlled by the environment.
Other-regulation	A novice is able to carry out some tasks, but only if he or she is assisted by appropriate linguistically mediated utterances from an expert. In other words, a novice’s speech is controlled by other humans.
Self-regulation	A novice speaks to control himself or herself.

In the beginning, a novice is usually incapable to exert much control over new, unfamiliar tasks (Wertsch 1979a:79-98, 1979b:1-22, 1985a:158-

183). A novice's utterances are said to be *object-regulated* when he or she is controlled by the environment (see Table 1). When discussing this first type of regulation Lantolf and Appel (1994:11-12) present an example of a child who is instructed by his or her mother to fetch a toy located at some distance from the child. However, the child being object-regulated is often distracted by other objects on his or her way to accomplishing the task. In this situation the child may completely forget the original task, or he or she may fetch a wrong toy.

At the next stage of development, that is, the stage of *other-regulation* (see Table 1), a novice is able to accomplish certain tasks with the help of another person (Wertsch 1979a:79-98, 1979:1-22, 1985a:158-184). De Guerrero and Villamil (1994:484) point out that an other-regulated novice working in the ZPD needs help through dialogue with a more capable person in order to be able to complete a task given. In other words, a novice at this stage is controlled by other people. However, as McCafferty (1992:424) notes, at this stage a novice is able to concentrate on a given goal and to ignore task-irrelevant features in the environment.

Eventually a novice takes over a larger part of the responsibility for a task given, until the last stage of development, that is, *self-regulation* (see Table 1) is achieved (Wertsch 1979a:79-98, 1979b:1-22, 1985a:158-184). At this stage a novice is not controlled by the dialogue with an expert any more, instead, according to Lantolf and Frawley (1983:426), he or she speaks to control himself or herself. Furthermore, at this stage a novice has internalised the strategies provided by others and is capable of accomplishing the task by himself or herself.

However, as Frawley and Lantolf (1985:20) and Lantolf and Appel (1994:12) point out, "attaining self-regulation is not absolute". That is, if a novice achieves self-regulation in a certain task, he or she is not necessarily self-regulated in all tasks. In other words, self-regulation is task specific. Furthermore, Frawley and Lantolf (1985:20) and Lantolf and Appel (1994:12) note that self-regulation is not achieved at a certain point of ontogenetic maturation either. Wertsch and Hickmann (1987:251-266) describe how a 4-year old child may be self-regulated in a task given while an older child may need other-regulation in the same task.

Related to the transition of regulation are the notions of *inner* and *private speech*¹. As was mentioned above, according to Vygotskian theory, a novice gains self-regulation through dialogic interaction with an expert. Speech, as Vygotsky (1979:17-19, 45-47) points out, has two functions, namely, interpersonal or communicative function and intrapersonal or egocentric function. The former serves to carry out social interactions. The latter, however, has a central role in the conduct of mental activities. Besides, according to Vygotsky (1979:18), egocentric speech does not disappear when a novice gains self-regulation; it goes “underground” as inner speech.

In addition, the stage of self-regulation does not, in Vygotskian theory, signal the end of development. Conversely, as Lantolf and Appel (1994:15) remark, Vygotskian theory considers development to be dynamic. Hence, as they further point out, once egocentric speech goes “underground” as inner speech, it does not stay there forever. On the contrary, when an individual finds himself or herself in a difficult task, he or she externalises the inner speech in order to gain self-regulation again. As Lantolf and Frawley (1983:427) put it, “inner speech surfaces as private speech in order to be internalised again”. Besides, any speaker has continuous access to all the stages of regulation when he or she engages in a difficult task. That is, in difficult situations an individual can revert to lower stages of regulation in order to regain self-regulation.

3.2 Elaborating the Zone of Proximal Development

As was mentioned above, Vygotsky’s notion of the ZPD has recently spurred a great deal of interest. The concept has been incorporated into various areas including both children and adults (eg. Rogoff and Wertsch 1984 and Tharp and Gallimore 1993). Consequently, the notion of the ZPD has been elaborated in view of contemporary research.

As Aljaafreh (1992) mentions, the work of Wertsch (eg. 1979a, 1979b, 1981, 1984, 1985a, 1985b, 1991) is most valuable in elaborating the notion of the ZPD. Wertsch elaborates Vygotskian ideas with regard to the nature of

¹ The term *private speech* was first coined by Flavell (1966) (Lantolf and Appel 1994:15).

collaboration between adult experts and child novices by introducing three interdependent prerequisites for a child's learning in this interaction. These notions, that is, *situation definition*, *intersubjectivity* and *semiotic mediation*, are discussed in this section.

3.2.1 Situation definition

This section deals with the notions of *situation definition* as outlined by Wertsch. In his earlier work (1984) with adult-child dyads, Wertsch introduces theoretical constructs in order to explain how learning can occur when novices work with experts. He writes that adults often define tasks one way and children define the same tasks another way. In other words, participants working in collaboration within the ZPD often start with different definitions of the situation. A situation definition is described by Wertsch (1984:8) as “the way in which a setting or a context is represented - that is, defined – by those who are operating in that setting”. As Wertsch (1984:9) points out, although ~~the participants~~ work in the same spatiotemporal context, they often represent ~~this context~~ in such different ways that they are not actually doing the same task. However, as Wertsch (1984:11) further argues, in order for growth within the ZPD to occur, it is essential that the participants have the same situation definition, that is, “situation redefinition” must also occur. According to him, this development cannot be conceptualised solely in terms of quantitative change. Rather, a novice gives up his or her previous “situation definition in favor of a qualitative new one” (Wertsch 1984:11).

3.2.2 Intersubjectivity

This section examines the term of *intersubjectivity*. Lantolf and Ahmed (1989:102) point out that the process of co-constructing the situation necessarily involves social interaction in which both participants have the responsibility in determining how a task is defined and carried out. According to Wertsch (1984:12), this can be established through the concept of

intersubjectivity, a concept initially introduced by Rommetveit (1974). Wertsch (1984:12) claims that intersubjectivity allows participants to negotiate a definition of the situation (see Section 3.2.1) that may be different from their original ones so that effective communication can be established. In addition, Rommetveit (1985:187) argues that intersubjectivity is achieved between two participants if, and only if, some state of affairs is brought into consideration by one of the participants and is jointly dealt with by both of them. As Wertsch (1984:12) puts it, “intersubjectivity exists between two interlocutors in a task setting when they share the same situation definition and know that they share the same situation definition”.

Moreover, because attaining intersubjectivity requires participants to share the same situation definition and because they typically have different definitions of the situation at the beginning of the activity, Wertsch (1979b: 8-18, 1985a:161-167) argues that different levels of intersubjectivity need to be taken into account in the ZPD. The four stages of intersubjectivity between child-adult interaction are summarised in Table 2:

Table 2. Four levels of intersubjectivity as defined by Wertsch (1979b, 1985a)

1. level	Situation definitions of participants are so different that communication is very difficult.
2. level	A child begins to participate appropriately, but there are still asymmetries in mutual understanding.
3. level	A child's situation definition is nearly the same as that of an adult's. A child can work on a task with minimal help from an adult.
4. level	An almost symmetric situation definition exists between participants and a child can carry out a task independently.

According to Wertsch, (1979b:8-18, 1985a:161-4), intersubjectivity, thus, exists at four different levels. At the first level of intersubjectivity a child may fail to interpret an adult's utterances in terms of a task. He or she may fail to respond to an adult completely or give an answer that has nothing to do with the adult's situation definition. As can be seen in Table 2, in this situation communication is very difficult. At the second level, in spite of asymmetries in mutual understanding, a child is able to respond to specific questions posed by an adult. At this level a child's interpretations of an adult's situation definition are still limited. At the next level, a child has already taken some responsibility for regulating his or her own activity, and he or she can respond appropriately

to other-regulation. However, this activity is still carried out in the interpsychological plane of functioning. Finally, the fourth level is characterised, as Wertsch remarks, by an almost symmetric situation definition. A child can accomplish a task independently. Besides, this is the final level in the transition from the interpsychological to the intrapsychological plane.

3.2.3 Semiotic mediation

In this section *semiotic mediation* is discussed. According to Wertsch (1984:13-14, 1985a:167), the negotiation of a symmetric situation definition involves semiotic mediation, of which the most important is the use of language. Intersubjectivity can be established by using appropriate forms of semiotic mediation in communication. Furthermore, Wertsch (1984:14) points out that “speech can create, rather than merely reflect an intersubjective situation definition”. Different forms of directives used by experts, for example, may establish different levels of intersubjectivity because of their presuppositions. However, in a joint activity of creating intersubjectivity both a novice and an expert are active participants and, thus, a novice can also play a major role in this process. Wertsch (1984:14) remarks that an expert’s utterances are bids in the negotiation and that bids can also be made by a novice. In other words, for intersubjectivity to exist, a novice has also to respond appropriately to an expert’s utterances, or at least he or she has to understand an expert’s situation definition (see Sections 3.2.1 and 3.2.2).

3.3 Process of scaffolding

As was mentioned above, Vygotskian ideas have been elaborated and explicated among researchers in various fields, including first and second language acquisition. The metaphor of *scaffolding* has been developed in neo-Vygotskian discussions to describe the type of other-regulation within the ZPD that is most effective in helping novices to learn new skills. Furthermore,

education has taken on board the concept of scaffolding while it, as Bliss et al. (1996:37) point out, includes “a psycho-social model of teaching and learning”.

In this section the process of scaffolding is discussed. Firstly, the notion and the functions of scaffolding are examined. Secondly, the mechanisms of effected help are discussed. These mechanisms include, first, a tutor’s role of making connections between a novice’s old and new knowledge. Furthermore, intervention should be graduated, contingent and dialogic, and, last, both participants should be active. Thirdly, some limitations of the concept of scaffolding are discussed. Finally, the stages of scaffolded learning distinguished by Tharp and Gallimore (1993) are presented.

3.3.1 Scaffolding

The concept of *scaffolding* has its origins in the work of Wood et al. (1976). The concept was introduced in the context of tutorial interactions between a child and an adult. Wood et al. (1976) use the term as a metaphor for the **process** by which an adult helps a child to learn how to perform a task that the **child** could not master alone. They (1976:90) describe the process of scaffolding as consisting of “the adult’s controlling those elements of the task that are initially beyond the learner’s capacity”. Thus, a learner is able to concentrate on and complete those elements of the task that he or she is incapable of doing without any help. In this way the task could be successfully completed. However, as Wood et al. (1976:90) further argue, “the process can potentially achieve much more for the learner than an assisted completion of the task” and it can eventually result in “development of task competence by the learner at a pace that would far outstrip his unassisted efforts”.

The above-mentioned definition of scaffolding introduced by Wood et al. (1976) is in accordance with Vygotsky’s view of the ZPD. Thereby, as Hobsbaum et al. (1996:17) remark, other researchers (e.g. Rogoff and Wertsch 1984) soon drew parallels between the concept of scaffolding and Vygotsky’s (1978) more general notion of the ZPD. However, Vygotsky’s concept of the ZPD (see Section 3.1.2), as Wood and Wood (1996) point out, does not define the nature of the assistance and collaboration that promotes development.

Alternatively, the term of scaffolding was coined to describe the ideal role of an expert in providing assistance to a novice. Greenfield (1984:119) notes that the idea is not to simplify the task, but to simplify a novice's role in the task through graduated assistance from an expert.

Moreover, Wood and Middleton (1975) and Wood (1980) use a procedure of intervention derived from the notion of scaffolding when investigating the instructional behaviour of mothers in relation to children's performance in problem solving activities. In their studies (1975, 1980), maternal help is categorised in terms of five levels of intervention, which are graduated in nature. These levels start from general verbal encouragement and become increasingly more explicit until a full demonstration is provided by mothers, who increase their responsibility over the task during the process. In addition, they note that the level of effective intervention of mothers affects children's ability to complete the task. They refer to this phenomenon as *the contingency rule*. This close relation of optimum assistance to a learner's successes and failures has also been studied by several other researchers (eg. Wertsch 1979b, 1985a, Bruner 1985, Palincsar 1984, Rogoff 1990, Tharp and Gallimore 1993). Besides, related concepts, such as guided participation (Rogoff 1990), reciprocal teaching (Brown and Campione 1990, Palincsar and Brown 1984), cognitive apprenticeship (Collins et al. 1989) and means of assisting and instructional conversation (Tharp and Gallimore 1993), have been formulated.

Moreover, in another study by Wood et al. (1976), scaffolded help is characterised by several features. These six functions of scaffolding are shown in Table 3:

Table 3. Functions of scaffolding as defined by Wood et al. (1976)

	FUNCTION	REALISATION IN PROCESS
1	Recruitment	A learner's interest is enlisted in the task.
2	Reduction in degrees of freedom	A task is simplified.
3	Direction maintenance	A learner is kept motivated and in pursuit of the goal of the task.
4	Marking critical feature	Critical features are marked and discrepancies between the learner's production and the ideal solution are interpreted.
5	Frustration control	Frustration is controlled during the task
6	Demonstration	An ideal version of the act is demonstrated.

Wood et al. (1976) suggest that an adult can serve several key tutoring functions during problem solving. As can be seen in Table 3, the first of these functions involves recruiting a novice's interest in and adherence to the goals of the task. At this stage an expert is principally concerned with "luring" a novice further and further into the joint activity (Wood et al. 1976:95, Wertsch 1979b:20). Secondly, an expert's task is to simplify the task so that a novice is able to understand the requirements of the task. Next, after simplifying the task a novice's orientation towards task-relevant goals has to be maintained. Fourthly, an expert has to highlight critical features of the task that may be overlooked by a novice. An expert then helps a novice to control his or her frustration and, finally, demonstrates how to achieve the ideal solution to the task. As Wood and Wood (1996:5) point out, the latter function of an expert is achieved by ensuring that a novice is neither given too little assistance nor preventing him or her from participating in the activity by giving too much help. In addition, according to Rogoff (1990:94), the notion of scaffolding includes an expert's continual revisions of scaffolded help to a novice's emerging capabilities. Scaffolded performance, as Wertsch (1979b:18-19) **remarks**, is a dialogically constituted activity during which a novice internalises the co-constructed knowledge of the situation (see Sections 3.1.1).

3.3.2 Mechanisms of effective help

As Wood and Wood (1996:6) note, there are a great number of studies on scaffolding in the ZPD, as well as reviews of these studies (eg. Rogoff 1990). On the basis of these studies several features of effective instruction within the ZPD can be identified. These features, that is, a tutor's role of making connections between a novice's old and new knowledge, a graduated, contingent and dialogic nature of intervention, and, finally, an active role of both participants are discussed in turn in this section.

Firstly, according to Rogoff (1990:65-85), a tutor serves to provide "bridges" between a learner's existing skills and those needed to solve new problems. When making connections, as Rogoff and Gardner (1984) observe, a tutor specifies how the old task resembles the new. According to Rogoff

(1990:86-110), by giving help a tutor provides a structure to support a novice's learning. Furthermore, Rogoff and Gardner (1984:97) indicate that this establishment of an intelligible context is important, while a learner's appropriation of new information depends considerably on its compatibility with a learner's previous knowledge. As Wood and Wood (1996) point out, when working alone a learner may not recognise the features that are common to the old and new tasks.

Secondly, as Aljaafreh (1992:79) and Aljaafreh and Lantolf (1994:468) note, effective collaboration is graduated. Assistance provided by a more experienced participant in an activity is meant to discover a learner's ZPD to provide appropriate help. This is important for development, as was mentioned in Section 3.1.2, while after discovering the appropriate level of help an expert can encourage a novice to function at his or her potential level. Furthermore, as was mentioned in Sections 3.2.1 and 3.2.2, this involves a process of negotiating intersubjective situation redefinitions in order to establish mutual understanding between a novice and an expert. In other words, the purpose of this negotiation is to find the minimum help needed to ensure joint success. According to Aljaafreh (1992) and Aljaafreh and Lantolf (1994), the most effective way of doing this is to start with implicit clues and gradually move to more explicit instructions until the appropriate level is discovered. This appropriate level, as Rogoff et al. (1984:35) point out, can sometimes be estimated by very subtle clues, such as hesitance, direction of gaze and postural change, as well as errors made by a learner.

Thirdly, according to Aljaafreh (1992:80) and Aljaafreh and Lantolf (1994:468), effective help is contingent, meaning that it is responsive to a learner's needs. They point out that effective assistance is related to a novice's capability of performing the activity. In other words, as Aljaafreh and Lantolf (1994:468) note, contingent help is given only when needed and, responsibility by an expert is withdrawn as soon as a novice shows signs of ability to take over. This transfer of responsibility is a central feature of effective guidance (Rogoff 1990). In addition, the mechanisms of graduation and contingency, according to Aljaafreh (1992:80) and Aljaafreh and Lantolf (1992:468), are actually one collaboration process in which a novice's ZPD is tried to discover

in order to estimate the appropriate level of help. In this context Wood and Middleton (1975) use the term *sensitive scaffolding* (see Section 3.1.2).

Fourthly, dialogue has an essential role in scaffolded instruction (eg. Palincsar 1984, 1986, Aljaafreh 1992, Aljaafreh and Lantolf 1994, Ahmed 1984, Lantolf and Appel 1984). A collaborative process, in which an expert tries to discover a novice's potential level of development and provides help according to it, is, as Aljaafreh (1992:81) and Aljaafreh and Lantolf (1994:468) point out, a dialogic activity between at least two people. Dialogue is the means by which support is given and adjusted. Overall, dialogicality is an essential aspect of the whole Vygotskian theory (eg. Wertsch , 1979b, 1980, 1991) and, thus, of the ZPD and scaffolding. Furthermore, as Wertsch (1984:14) points out, effective assistance within a novice's ZPD can only be managed through dialogic negotiation.

Finally, an active role of a learner is recognised in the process of effective scaffolding (eg. Rogoff 1990, Tharp and Gallimore 1993, Rogoff and Gardner 1984, Aljaafreh 1992 and Aljaafreh and Lantolf 1994). Although in the beginning a learner participates in a task that is "out of reach" for him or her, **guided** assistance, as Rogoff (1990:195-6) remarks, makes it possible for a **learner** to play an active role in learning. Thus, a learner contributes to the successful completion of a given task. Besides, this guided participation can often occur naturally without any deliberate attempts, for example, in everyday activities (Rogoff 1990).

3.3.3 Limitations of the metaphor

This section discusses some limitations of the metaphor of scaffolding. Although the metaphor has been widely applied to studies in different fields, the notion has also been criticised. Stone (1993:170) notes that the initial discussions of scaffolding concentrated on identifying and describing scaffolded interactions and on investigating their effectiveness. In addition, researchers paid little attention to the actual mechanisms by which responsibility was transferred from an expert to a novice. Thus, as Stone (1993:170) claims, "a persisting limitation of the metaphor of scaffolding

relates to the specification of the communicative mechanisms involved in the adult-child interaction constituting the scaffolding process". However, as Stone further emphasises, and as was mentioned in Sections 3.2.3 and 3.3.2, these mechanisms, such as the use of language, are crucial to the Vygotskian theory of cognitive development. Furthermore, Stone (1993:171-181) discusses various ways of analysing scaffolding and mentions, for example, the term *prolepsis*. Rommetveit (1974) uses this term in referring to such utterances which presuppose some as yet unprovided knowledge and, thus, challenge a listener to make assumptions in order to make sense of a speaker's utterance. In this process, as was mentioned in Section 3.2.2, intersubjectivity between the participants can be created (Rommetveit 1995, Wertsch 1985a). In addition, Stone (1993) emphasises that nonverbal communicative devices and interpersonal relationships between the participants in general have a crucial impact on the effectiveness of scaffolded interactions. Due to these limitations of the initial definition of scaffolding more recent studies have studied also the mechanisms of transfer (eg. Wertsch 1985a, Moll 1990).

3.3.4 Stages of scaffolded learning

This section describes different stages of scaffolded learning. As will be described in Chapter 4, the notions of the ZPD and scaffolding have been used with skill learning in various different contexts. Gallimore and Tharp (1990) and Tharp and Gallimore (1993) have incorporated Vygotsky's theory into educational settings and acknowledged three means of assisting a novice through the ZPD, that is, modelling, contingency management, and cognitive structuring. Tharp and Gallimore (1993:6) have used a "contextualist and interactionist view of human development" in constructing a theory of teaching and schooling within the ZPD. According to this view, utterances made by discourse participants are regarded as starting points for further conversation and for creation of new meanings (Wertsch and Bivens 1992:41). According to Tharp and Gallimore (1993:8), teaching that is "understood as assisted performance of apprentices in joint activity with experts ... can guide training and yet remain firmly rooted in theory". Furthermore, their model of progress

within the ZPD, as Aljaafreh (1992:83) notes, emphasises the relationship between self-control and social-control. As Tharp and Gallimore (1993:33) put it, “the development of any performance capacity in the individual represents a changing relationship between self-regulation and social-regulation”. The four developmental stages of this model are shown in Figure 1:

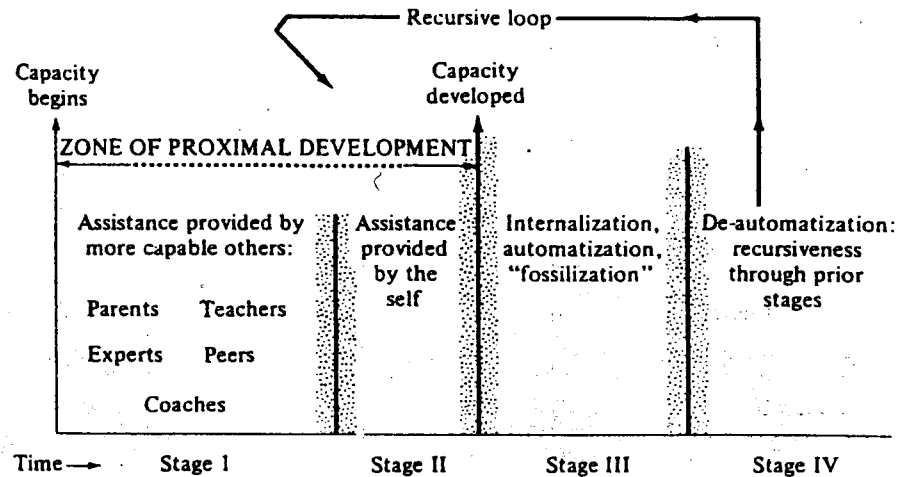


Figure 1. Stages of scaffolded learning distinguished by Gallimore and Tharp (1990) and Tharp and Gallimore (1993).

At the first stage, the stage of other-assisted performance, a novice has a limited understanding of a task and he or she relies on an expert for task regulation and task performance (see Figure 1). As a result, an expert offers models and directions for a novice to comply (e.g. Greenfield 1984, Griffin and Cole 1984, Wertsch 1979b, 1981 1985a). As Tharp and Gallimore (1993:33-6, 250) observe, responsibility of an expert gradually declines and, consequently, a novice takes over more responsibility of the task. The developmental task of this stage is the transition from other-regulation to self-regulation.

At the second stage, the stage of self-assisted performance, a novice performs a task without assistance from others, but, as Tharp and Gallimore (1993:36, 252) remark, the performance is not fully developed. Regulation may be taken over by a novice, but they (1993:37) claim that “the control function remains with the overt verbalisation” in the form of self-directed speech. The major function of self-directed speech is observed to be this self-control (Gallimore et al. 1986, Berk 1986, Tudge 1992), and Tharp and Gallimore

(1993:37), following Vygotskian theory, argue that its significance in a novice's development is profound (see Section 3.1.3). It indicates the transition of responsibility from an expert to a novice, who starts to direct himself or herself after the stage of other-regulation (see Figure 1).

At the next stage verbal assistance from an expert or from the self is no longer needed. Thus, this stage is referred to as the stage of internalisation and automatisisation. Instead, as Tharp and Gallimore (1993:38) point out, instructions from others are disruptive and irritating. It is at this stage, as they (1993:38, 257) further claim, that a novice emerges "from the ZPD into the developmental stage" and the task is internalised (see Figure 1). The skill is no longer developing but fully developed. Vygotsky (1978:86-7) refer to it as the "fruit" of development. The term *fossilised* is also used to describe its fixity (Tudge 1992).

The final stage is the stage of de-automatisation of performance and that of recursion back through the ZPD. Tharp and Gallimore (1993:38) point out that for every individual at any age "there will be a mix of other-regulation, self-regulation and automatised processes". De-automatisation occurs when a novice cannot do what he or she could formerly do. According to Tharp and Gallimore (1993:39), reasons for such de-automatisation include, for example, environmental changes, individual stress as well as major upheavals. In such situations a novice first retreats to the prior self-regulating stage (see Figure 1). However, if that is not enough to complete a task given, other-regulation is needed.

4 PREVIOUS STUDIES WITHIN THE VYGOTSKIAN FRAMEWORK

Vygotskian psycholinguistic theory has gained considerable attention among researchers within the last two decades. These researchers have been interested in the sociocultural theory of mind, which regards the role of language as an important psychological tool operating both between and within individuals. Most early studies have concerned interaction in L1. In L1 contexts, experts help novices to use language to create culturally relevant meanings and this socialisation process takes place through the use of language being acquired (Ochs and Schieffelin 1984:277-320). Later also the study of L2 interaction brought attention to sociocultural theory, which recently has been applied to a growing number of L2 studies. This theory while emphasising the role of language in the mediation of social interaction has been found well-suited to L2 research. These studies can be broadly categorised as those concerning inner or private speech and those concerning collaborative interaction in different settings. In this section, some previous studies will be reviewed.

As was mentioned above, the Vygotskian framework has been applied to a large number of studies, and, thus, it is not possible to present all the studies here. The studies shown in the tables were chosen on the basis of their focus. All the studies presented are concerned with the notion of the ZPD and the scaffolding process either in or outside school. The studies include both experiments and studies arranged in naturalistic settings but, however, most of them have been experiments. Sections 4.1 and 4.2 outline some previous L1 and L2 studies, respectively.

4.1 Previous L1 studies within the Vygotskian framework

As was mentioned above, the Vygotskian framework has been applied to a large number of studies, most of which have concerned interaction in L1. For the purposes of the present study, some of these studies were chosen on the basis of their focus, that is, the notion of the ZPD and scaffolding. However, each of the studies concentrated on some more specific questions within this large research area. Most of the studies, that is, six L1 studies, focussed on collaborative interaction in a classroom setting. In addition, the study by Schinke-Llano (1994) considered both classroom teachers and mothers as experts teaching children. In this section the focus and research problems of the L1 studies, subjects, procedure, data and analyses, and, finally, main results are first summarised in Table 4 and then described in more detail. Table 4 presents the studies in a chronological order.

Table 4. Previous L1 studies within the Vygotskian framework

STUDY	FOCUS / PROBLEMS	SUBJECTS	DATA	PROCEDURE / ANALYSIS	MAIN RESULTS
Forman 1981 L1	<ul style="list-style-type: none"> - How the reasoning strategies of collaborative problem solvers differ from those of solitary problem solvers? - How social interactions and cognitive strategies differ? 	<ul style="list-style-type: none"> - Eight middle-class children in the fourth and fifth grade - Approximately nine years of age 	<ul style="list-style-type: none"> - Children were individually pre-tested and post-tested - Teaching interactions were taped and later transcribed - Pairs participated in 11 problem-solving sessions, once a week over a 3-month period - Post-tests were administered within a week after the last session 	<ul style="list-style-type: none"> - The first two experiments of a chemical reaction task were performed by the teacher - Pupils were asked standard questions - Next pupils were asked to do some experiments without mixing the chemicals and after that they were allowed to mix combinations they had selected - The original questions were repeated - Levels of procedural interactions were identified: parallel, associative and co-operative - Basic types of experimentation strategies were observed: a trial-and-error strategy, an isolation-of-variables strategy, a combinatorial strategy (adapted from Kuhn & Phelps 1982) 	<ul style="list-style-type: none"> - Collaborates were able to use more sophisticated problem-solving strategies than the singletons - Though pairs seemed to solve the chemical combination problems faster than the singletons they did not do better than - The difference in partnership, the level of procedural interaction also affected the success of the pair work - The peer observer seemed to provide some kind of scaffolding assistance that is usually thought to be common among adult teachers
Greenfield 1984 L1	<ul style="list-style-type: none"> - The nature of scaffolding in informal instruction 	<p>STUDY 1:</p> <ul style="list-style-type: none"> - Six children from nine to 22 months old of age and their mothers in the USA - All the subjects were within the one-word-period <p>STUDY 2:</p> <ul style="list-style-type: none"> - 14 girls from 7- to 15-year-old members of an Indian culture in rural Mexico and their teachers - First-time weavers and experts 	<ul style="list-style-type: none"> - Informal learning sessions videotaped and later transcribed - The most natural situations possible - Each child was observed twice and sessions were from four to six weeks apart 	<p>STUDY 1:</p> <ul style="list-style-type: none"> - Children were divided into three language levels on the basis of their language production - Two types of adult-initiated offer messages were identified: the offer of an object and the offer of an activity - Focus was on the role of the caregiver in the development of comprehension - Verbal and non-verbal behaviour was studied <p>STUDY 2:</p> <ul style="list-style-type: none"> - Girls were learning to weave guided by close relatives, usually mothers - Focus was on both verbal and non-verbal means of instruction 	<ul style="list-style-type: none"> - The same developmental and educational process from interindividual to intraindividual accomplishment applies although a learner's skill, age and culture were different - Learners' errors signalled adults to upgrade the scaffolding - Task differences, age differences and value differences were all possible explanations for the greater number of errors occurring in the language learning situation than in the weaving situation

STUDY	FOCUS/ PROBLEMS	SUBJECTS	DATA	PROCEDURE/ ANALYSIS	MAIN RESULTS
Rogoff, Malikin, Gilbride 1984 L1	- How combination of an infant's skills and the guidance of adults helps the development of babies into socialised participants in society?	- Ten men and women, from 18 to 77 years old of age interacted with babies, from 4 to 17 months old - Babies were a twin sister and a brother - 12 of the adults were strangers to the babies, five were acquaintances and nine were relatives	- Interactions between adults and babies were videotaped and later transcribed to analyse partners' adaptation to each other - Vocalisations, intonations, postural changes, gaze, gestures and actions with objects were transcribed	- Pairs were given a jack-in-a-box - The adult was asked to try to get the baby to talk and smile and play with the jack-in-box	- Cognitive development was accomplished by the adults by arranging the learning environment and by guiding the babies' participation - Adults structured the activity so that the overall goal was met by arranging subgoals and by helping the babies to reach these subgoals at a level which was appropriate to the babies' skill - Babies played an active role in their own development
Wertsch and Hickmann 1987 L1	- The importance of social interaction in cognitive development - Different social interactive processes where adults regulate children's problem- solving activities	Dyad 1: - a 4,5-year-old child and her mother Dyad 2: - a 3,5-year-old child and his mother	- Interactions between the children and their mothers were videotaped and the tapes were later transcribed	- First the dyads completed a practise task - In the study each mother-child dyad was given two puzzles depicting a truck, one of which the child was supposed to complete in accordance with the other - The mother was asked to help the child if any help was needed - The truck "cargo", which consisted of 12 squares and which were made up of two identical triangles, could fit into more than one place in the puzzle - The nine "non-cargo" pieces could fit only into one place in the puzzle - In addition there were also 12 extra cargo triangles which did not include into the model puzzle - Interactions were segmented into "episodes" which were defined as the segment of interaction centred around one piece of the puzzle and further broken down into component activities, e.g. attention to model and piece selection - Several non-verbal behaviours were coded, e.g. children's gaze and pointing	- In the first dyad (4,5 years) the transition from other- to self- regulation could be said to have occurred but not in the second (3,5 years) - There were two "prerequisites" for the transition to occur: 1. The children's ability to regulate their own problem-solving activity depended in part on whether adults let them to do so 2. The children's level of cognitive readiness in relation to task difficulty influenced the transition

STUDY	FOCUS/ PROBLEMS	SUBJECTS	DATA	PROCEDURE/ ANALYSIS	MAIN RESULTS
Tudge 1990 L1	- Interaction in peer collaboration in which there is a difference in the level of ability of the partners but in which the more advanced partner is not necessarily more confident of his or her beliefs	STUDY 1: - 51 children from kindergarten, 56 6-7-year olds, 47 8-9-year olds - Children were approximately equally divided by gender STUDY 2: - 180 children, aged from six to eight years	- Children were pre-tested before the actual study to find out how they predict the movement of the beam when differing configurations of weights were placed at differing distances from the fulcrum and post-tested after the study - The problem-solving interactions were observed	- The task on which the children worked required them to predict the working of a mathematical balance beam - The weights were placed on only one stick on each side of the fulcrum, with a maximum of six weights on any one side and a maximum of ten on both sticks - Children had 14 different trials STUDY 1: - Four different conditions: without a partner, equal rule partners, lower partners, higher partners STUDY 2 with minor exceptions the design was like in study 1: - After the agreement the supports holding the beam in place were removed - 2/3 of the children were given feedback, 1/3 were given no feedback - Conditions like in study 1	- Depending on the specific characteristics of the participants and task, that is, the children's confidence in their knowledge, their reasoning, the role of feedback in facilitating learning, children either progress or regress in their learning - One important factor was the degree of confidence each child brought to the interaction. In other words, the children regressed when confronted with less competent and confident partners when feedback was not provided - When feedback was provided its impact overshadowed other effects of discussion with a partner
Radziszewska and Rogoff 1991 L1	- The influence of guided participation in children's collaboration with adults and peers on children's solving a problem	- 60 elementary school children worked with 20 same-age untrained peers, 20 trained peers and 20 adults - Children were from 9 to 10 years of age	- Interactions between participants working on two errand planning trials were videotaped and the tapes were transcribed - Trained peers and adults were pretested - All the children were posttested to find out how they solve the problem individually	- Trained peers were pre-trained for the task - Partners were given a map with the names and location of the stores needed to go - Each partner was given a list of five items - Partners were asked to plan a shopping trip together to buy the items and to mark the route in the map - Efficiency, that is, the length of the route was stressed while gas should be saved - The joint planning strategies and the guided participation were analysed	- Adult participants provide more explanation to children and children were more involved in the joint decision-making process with adults than with peers - Interaction with adult partners involved both more skilled problem solving and more guided participation - Target children working with adults became more skilled in errand planning than those working with peers

STUDY	FOCUS/ PROBLEMS	SUBJECTS	DATA	PROCEDURE/ ANALYSIS	MAIN RESULTS
Schinke-Llano 1994 L1	- How the adult utilises language to structure a problem-solving task for children?	STUDY 1: - 12 monolingual English-speaking fifth- and sixth-grade teachers - 12 native English-speaking (NS) and 12 limited English-proficient (LEP) children STUDY 2: - 10-11 -year old pupils - 12 American mothers - Six pre-school normally achieving (NA) and learning disabled (LD) children - All the children were male, ages 3-7 years	- Teacher-student and mother-child dyads were audiotaped and videotaped and tapes later transcribed - Field notes were kept on any relevant comments the teachers made outside the taping sessions - Questionnaires regarding the nature of the children's problems	STUDY 1: - Teachers were asked to explain the pupil how to fill in an order blank to order two items and they were asked to give assistance when needed - In order to find out the total amount of language used lines of teacher-talk in transcript were counted and tapes timed - Non-verbal, direct and indirect directives were coded as well as teacher-regulated and student-regulated utterances STUDY 2: - Mothers were asked to assist their children to put a toy airport together according to a model - Assistance was provided when the mothers thought it was necessary for the child to complete the toy airport	STUDY 1: - Teachers talked more to LEP students and organised the tasks differently for them in regard to abbreviation - The instructions with LEP pupils were more teacher-regulated and the tasks were explained more explicitly to them STUDY 2: - Mothers in LD dyads were often physically responsible for the tasks and they utilised direct other-regulation, relied almost exclusively on pointing and had a greater part of the strategic responsibility than those in the NA dyad - In both studies the adults modified their interaction patterns according to the children's developmental stages
Bayer 1996 L1	- A model of a more student-centred class with a sense of shared control - Description of a class where the teacher organises joint activities which allow students to use language as a thinking device in order to make connections between old and new knowledge	- 23 graduate students whose major was elementary education - Subjects participated in a one-year long course, Language and Education - Students were novices within the domain of this particular course	- The instructor and students met once a week over a two semester period - Each 80-minute class was videotaped and later transcribed	- The instructor (the researcher) developed a new lecture format in Language and Education course for the university students who themselves planned to become educators - The analysis revealed two scaffolding structures: 1. "shared knowledge scaffolding" structure according to which activities were arranged for the purpose of eliciting student prior knowledge and for presenting a means by which students could build on that previous knowledge, and 2. "anchored knowledge scaffolding" structure which continued where the "shared knowledge" structure ended and during which new more difficult activities were introduced	- The two analysed scaffolding structures, namely, "shared knowledge scaffolding" and "anchored knowledge scaffolding" served as a means by which students were able to achieve intersubjectivity and thereby take responsibility for their learning

STUDY	FOCUS/ PROBLEMS	SUBJECTS	DATA	PROCEDURE/ ANALYSIS	MAIN RESULTS
Bliss, Askew and Macrae 1996 L1	<ul style="list-style-type: none"> - Could the model of scaffolding used for everyday knowledge be transferred to specialised school knowledge? - Scaffolding strategies in three specific primary schooling contexts: design and technology, mathematics and science 	<ul style="list-style-type: none"> - Five teachers and 12 design and technology, mathematics and science classes - Pupils were nine to eleven years old 	<ul style="list-style-type: none"> - Teachers and pupils were observed over four terms - Field notes - Lessons were audiorecorded - About 50% of lessons were videotaped - Teachers and pupils were interviewed 	<ul style="list-style-type: none"> - The study consisted of an exploratory phase and a developmental phase - During the exploratory phase spontaneous scaffolding strategies were identified and encouraged - During developmental phase scaffolding strategies were observed and their role in learning discussed - During both phases school-based work followed by reflective work out of school - During the reflective out-of-school work the researcher and the teacher watched videos of lessons in order to help the teacher to use scaffolding 	<ul style="list-style-type: none"> - Each teacher had a definite teaching style different from that of others - Teachers had a tendency to talk to pupil without real interaction, that is, scaffolding was found to be difficult - Scaffolding could happen at school but it was difficult
Hobsbaum, Peters, Sylva 1996 L1	<ul style="list-style-type: none"> - Can the interventions within the writing episode be conceptualised as scaffolding procedures? - Do the patterns change over time? 	<ul style="list-style-type: none"> - 17 children in Reading Recovery (RR) lessons and 7 teachers working in different schools - The exact age of the pupils is not stated but they had studied at school about a year 	<ul style="list-style-type: none"> - The writing lessons in RR were studied over several school terms - 75 lessons were observed and audiotaped and later transcribed - Field notes were kept - All pupils were observed once at the beginning and at the end of their program - Four pupils were observed on a weekly basis throughout the program 	<ul style="list-style-type: none"> - RR is an early literacy intervention which involves a one-to-one tutorial program arranged daily to young pupils who have had problems to learn to read and write - In this study the pupil and the teacher worked together to read and to produce a text and the teacher provided contingent assistance and prompting the child to take over more responsibility for the task as his or her skill developed - Teacher-child moves were studied in relation to each other - Patterns of and changes in interaction were identified 	<ul style="list-style-type: none"> - Three phases of scaffolded activity were identified: the teacher monitored closely the child's work, s/he acted as prompt and s/he was essentially reactive - These phases identified in the data indicated that the interaction between the teacher and child was a process of scaffolding

Firstly, the scaffolding process between experts and novices of different ages or other proficiency levels was an issue of interest of many of the studies conducted in L1 contexts (Rogoff et al. 1984, Wertsch and Hickmann 1987 and Schinke-Llano 1994). These studies examined scaffolded assistance provided, for example, to limited English-proficient and learning disabled children, 4,5 and 3,5-year-old children, and babies. In contrast, the study by Radziszewska and Rogoff (1991) concentrated on the effects of different experts, that is, adults, trained and untrained peers, on the scaffolding process. Furthermore, the comparison between the scaffolding and problem-solving processes of pairs and singletons was the focus of the studies by Forman (1981) and Tudge (1990). Lastly, the nature of scaffolding in different L1 contexts was discussed in many of the studies reviewed here (Greenfield 1984, Bayer 1996 and Bliss et al. 1996). More specifically, these settings included L1 contexts, such as, informal learning settings and experiments of modelling more student-centred classes in universities and primary schools. In addition, Reading Recovery lessons, that is, one-to-one interventions for young children who have had difficulties in reading after one year of school, was studied in the study by Hobsbaum et al. (1996).

Secondly, the L1 studies could be divided into two broad categories depending on the age of the subjects: those with adult experts and child novices and those with children. In most of the L1 studies adults had the role of an expert and children the role of a novice (Greenfield 1984, Rogoff et al. 1984, Wertsch and Hickmann 1987 and Schinke-Llano 1994). In all these studies children were either babies or young children, the oldest being 15 years old. The study by Schinke-Llano (1994) included also limited English-proficient and learning disabled children. Furthermore, some of the studies concentrated on situations where the teacher was an expert helping a group of pupils or students in a classroom setting (Bayer 1996, Bliss et al. 1996 and Hobsbaum et al. 1996). In addition, the studies by Forman (1981) and Tudge (1990) investigated collaborative interaction between young children up to nine years of age, who were not all equally proficient in the problem-solving task of the experiment. Lastly, the study by Radziszewska and Rogoff (1991) compared the nature of scaffolding of adult and child experts. The child experts, being nine to ten years of age, were always older or the same age as the novices of

the dyads were. As was mentioned above, the experts of this study consisted of both untrained and trained children.

Thirdly, the studies in this review could be categorised broadly as experiments and as those studies that examined interaction in natural classroom or natural informal settings. Besides, the experiments could be divided into studies that used tasks with only one correct solution and with precise instructions and those with an open-ended solution and usually with minimal instructions. Accordingly, in most of the experiments (Forman 1981, Wertsch and Hickmann 1987, Tudge 1990 and Schinke-Llano 1994) the exercises given to the subjects were problem-solving tasks with only one correct solution consisting of, for example, puzzles, maps, mathematical or chemical tasks. In contrast, the research designs of the studies by Rogoff et al. (1984), Bayer (1996) and Bliss et al. (1996) included open-ended tasks. In addition, the study by Hobsbaum et al. (1996) discussed the nature of scaffolding in Reading Recovery lessons and it was performed in a natural classroom setting without any specific instructions.

Fourthly, different categories were used in the analyses of the L1 studies in the review. Except for the study by Tudge (1990) that used observations as a means of data collection, in all the studies the interactions between the subjects were audio- or video-taped. For the purposes of analysis the recordings were later transcribed. In addition, some of the studies used field notes and interviews as additional methods to collect data. In all the L1 studies concentrating on collaborative interaction between experts and different novices (Rogoff et al. 1984, Schinke-Llano 1994, Wertsch and Hickmann 1987) the verbal and non-verbal interactions given by experts were analysed. The study by Radziszewska and Rogoff (1991) that concentrated on the effects of different experts on the scaffolding process identified the participation of the novices and the efficiency of the whole joint planning processes in the analysis. In addition, different phases and strategies of scaffolding were identified in the studies that dealt with modelling and describing more pupil-centred classes (Bayer 1996, Bliss et al. 1996, Hobsbaum et al. 1996). Greenfield (1984) identified also different types of offers presented by the expert during the scaffolding process. Lastly, in the analyses of the studies by Forman (1981)

and Tudge (1990) the effects of different working conditions on problems solving were reported using quantitative methods.

Finally, the results of the L1 studies concentrating on the scaffolding process between experts and novices of different age and proficiency levels (Rogoff et al. 1984, Wertsch and Hickmann 1987, Schinke-Llano 1994) indicated that adult experts modified their scaffolding patterns depending on the novices' developmental stages. Besides, Wertsch and Hickmann (1987) pointed out that the novices' ability to become self-regulated on a problem-solving activity depended on whether experts let them do so and whether the help provided corresponded to the novices' cognitive readiness. Furthermore, in the study by Tudge (1990), feedback was found to overshadow other effects of peer interaction among children and the degree of confidence was also found to be an important factor. Lastly, the studies by Bayer (1996), Bliss et al. (1996) and Hobsbaum et al. (1996) indicated that the notion of scaffolding was applicable to different school contexts. In addition, its applicability to different informal contexts was shown in the study by Greenfield (1984).

4.2 Previous L2 studies within the Vygotskian framework

As was mentioned before, though most early studies in the Vygotskian framework have concerned L1 interaction, the Vygotskian ideas have recently also been applied to an increasing number of L2 studies. The L2 studies, like the L1 studies, were chosen on the basis of their focus, that is, the notion of the ZPD and scaffolding. In this section the focus and research problems of the L2 studies, subjects, procedure, data and analysis, and, finally, main results are summarised in Table 5. Like Table 4, Table 5 presents the studies in a chronological order. Furthermore, the previous L2 studies reviewed in Table 5 are described in more detail in Sections 4.2.1 to 4.2.5.

Table 5. Previous L2 studies within the Vygotskian framework

STUDY	FOCUS / PROBLEMS	SUBJECTS	DATA	PROCEDURE / ANALYSIS	MAIN RESULTS
Aljaafreh 1992 L2	- The effects of negative feedback on second language among adults	- Nine university learners of English as a second language, aged from 18 to 37 years - Subjects had different ethnic backgrounds and all except one were females - All the subjects were considered beginners in terms of their writing abilities and they participated in an eight-week second level ESL writing and reading course	- The tutoring session between the researcher and three students one at the time were audiotaped and later transcribed - All the subjects of the study wrote eight essays of which seven were corrected	- Learners were divided into three groups: Explicit Negative Feedback, Implicit Negative Feedback and ZPD Groups - The ZPD group consisted of three volunteers who participated in the tutoring sessions once a week with the tutor - The students of the Explicit and Implicit Negative Feedback Groups did not know that they were assigned into an error correction group - Compositions were always returned unmarked to the members of the ZPD group and correction was done together with the learner and the tutor - Before any correction was made the learner was allowed to read the written assignment by his/herself - The levels of strategic help (adapted from Wertsch 1984 and Wertsch and Hickmann 1987) and the regulatory scale were identified	- Learners were capable of using negative feedback to improve their performance if negative feedback was given responsively - The continuum of graduated levels of help included explicit and implicit negative feedback
Adair-Hauck and Donato 1994 L2	- How a foreign language expert negotiates a foreign language grammar explanation with a novice speaker within the ZPD?	- A French teacher with 20 years of teaching experience in a suburban school district in Pittsburgh - A first-year French student who had studied French for five weeks prior to the tutorial session	- A one-hour long tutorial session between an expert and a novice was videotaped and later transcribed for analysis	- The researcher and the teacher designed the lesson together - An abbreviated version of "Cinderella" in French which was an "advanced organiser" for the tutorial session and a grammar exercise were required activities - The teacher also developed her own activities - The foreign grammar point (present tense first conjugation -er verbs) was embedded in the activities - In the analysis different levels of the ZPD during explicit instruction and the discourse strategies that facilitated the development of competence in the learner were described	- Different levels of the ZPD were described on the basis of the data - Language served a functional purpose to co-construct new knowledge and skills - ZPD lessons encouraged experimentation on the part of both the student and the teacher

STUDY	FOCUS/ PROBLEMS	SUBJECTS	DATA	PROCEDURE/ ANALYSIS	MAIN RESULTS
Brooks and Donato 1994 L2	<ul style="list-style-type: none"> - The nature of selected aspects of FL learners' speech activity, such as, talk about the task, talk about the talk and the use of L1 - How speaking during the task collaboratively influences and builds a shared social reality between the students? 	<ul style="list-style-type: none"> - Eight dyads of third-year high school learners of Spanish - The native language of the subjects was English 	<ul style="list-style-type: none"> - Conversations between the students were audio and videotaped and the tapes were transcribed 	<ul style="list-style-type: none"> - Both students of each dyad were given a jig-saw diagram - Subjects were instructed to find out and to draw in what the other had on his or her part of the diagram that was both similar to and different from the other's jig-saw - Subjects sat opposite each other with a barrier between them - At the end of the task the participants were supposed to have a similar kind of diagram - Three instrumental functions of speaking were identified: speaking as object-regulation, as shared orientation and as goal formation - Subjects were instructed to speak in Spanish 	<ul style="list-style-type: none"> - Learners attempted to control the problem activity by constructing it verbally and orienting themselves to the demands of the task - Intersubjectivity was achieved through verbal thinking - Learners were successively able to orient and guide one another to more difficult problems
Donato 1994 L2	<ul style="list-style-type: none"> - How students co-construct their L2 learning experiences in the school setting? - How social interactions in the classroom facilitate the appropriation of new linguistic knowledge by the L2 learner? 	<ul style="list-style-type: none"> - Three third semester university students of French at an American university 	<ul style="list-style-type: none"> - Interactions between the three subjects consisted of a one-hour planning session for the oral activity which would take place in the next class - Interactions were audiotaped and later transcribed 	<ul style="list-style-type: none"> - Subjects were asked to plan together what they thought they would need in order to participate in the oral task of the next French lesson - The task was to create a conclusion for the story that the teacher had told them and the presentation was to be made without any written notes. - Students were asked to discuss the problem together - Students were allowed to use both L1 and L2 during the discussion - In the study the definitions of scaffolding defined by Wood et al. (1976) were used 	<ul style="list-style-type: none"> - Learners gave guided help to their peers during collaborative L2 interactions in the same way as experts provide scaffolding - In this L2 learning process learners were able to expand their own language knowledge and that of their peers

STUDY	FOCUS/ PROBLEMS	SUBJECTS	DATA	PROCEDURE/ ANALYSIS	MAIN RESULTS
deGuerrero and Villamil 1994 L2 (see Villamil and deGuerrero 1996)	<ul style="list-style-type: none"> - What types of interaction occur between members of a dyad in a peer revision session? - How students regulate themselves and their partners during interaction? 	<ul style="list-style-type: none"> - 54 intermediate ESL college students from a large private university in Puerto Rico - The native language of the subjects was Spanish - Subjects were enrolled in a course which emphasised the development of writing skills - One of the researchers was the instructor 	<ul style="list-style-type: none"> - 40 interactions between dyads of students were audio and videotaped and later transcribed - Peer revisions on two different occasions, about one month apart 	<ul style="list-style-type: none"> - A training session of about four weeks was devoted to train the students in two rhetorical modes (narration and preceding persuasion) and to write the first draft, on basis of which the students were divided into writers and readers - Pairs were randomly formed - In each pair there was a writer whose essay could be revised and a reader whose task was to help the writer to revise it - On-, about- and off-task episodes, six types of on-task episodes (adapted from Freedman 1992) and episodes according to three stages of regulation (adapted from Wertsch 1979) were identified - In addition the social relationships were divided into the categories of symmetry and asymmetry 	<ul style="list-style-type: none"> - Peer revision sessions were complex and productive - Students co-operated but also interacted with the teacher and self-revised the tasks - Students used frequently L1 in order to gain self-control - Control was constantly readjusted as tasks demands changed (continuous access) - Subjects working in pairs benefited from peer revision sessions
Ohta 1995 L2	<ul style="list-style-type: none"> - How L2 development is constructed by learners in teacher-fronted and pair work interaction involving two learners of Japanese? 	<ul style="list-style-type: none"> - Pupils in a second-year university level Japanese class - The analysis focused on 20-year-old Becky and 27-year-old Mark 	<ul style="list-style-type: none"> - A 100-minute Japanese lesson was audio and videotaped and later transcribed - Becky, a volunteer student, carried one microphone which enabled collection of data during the students' pair work 	<ul style="list-style-type: none"> - The teacher arranged pair work on the day of data collection as she usually did - First polite requests in L2 were practised with the teacher and after that group work between dyads was arranged - Analysis focused on the role of scaffolding, especially six different characteristics: 1. Impact of the setting, 2. Occurrence of peer scaffolding, 3. Function of Japanese, 4. Handling of the errors, 5. Novice-expert roles and 6. Results from peer interaction 	<ul style="list-style-type: none"> - Pair work provided an environment which allowed learner-learner collaborative activity between two students of different levels of proficiency - Learners' competence in the ZPD developed through their collaboration and they provided scaffolding to one another - Subjects reached a higher level of accuracy and communicative competence - The roles of expert and novice were not fixed

STUDY	FOCUS/ PROBLEMS	SUBJECTS	DATA	PROCEDURE/ ANALYSIS	MAIN RESULTS
Villamil and deGuerrero 1996 L2 (see deGuerrero and Villamil 1994)	- What kind of social-cognitive activities, mediation strategies and aspects of social behaviour characterised peer review?	- One of the researchers was the instructor - 54 intermediate ESL college students from a large private university in Puerto Rico - The L1 of the subjects was Spanish - Subjects were enrolled in a course which emphasised the development of writing skills	- 40 interactions between dyads of students were audio and videotaped and later transcribed for the analysis - Peer revisions on two different occasions, about one month apart	- A training session of about four weeks was devoted to train the students in two rhetorical modes (narration and preceding persuasion) and to write the first draft, on basis of which the students were divided into writers and readers - Pairs were randomly formed - In each pair there was a writer whose essay could be revised and a reader whose task was to help the writer to revise the work - Students were given written instructions for the revision session and writers were also orally instructed to read the essays aloud before the session - After each session the students were asked to work on their revised essays at home and to submit it a week later - Five different types of socio-cognitive activities, five types of mediating strategies and four aspects of social behaviour were identified	- With different types of activities and strategies identified in the study the students were able to establish intersubjectivity - Dyadic peer revision offered an opportunity for collaborative work and bilateral learning - Different forms of mutual scaffolding were important in order to achieve task goals - Social relations were not static but rather flexible
DiCamilla and Antón 1997 L2 (see Antón and DiCamilla 1998)	- What kind of role repetition shows in the collaborative discourse of L2 learners?	- Five dyads of English native speaking adults who participated in a six week intensive Spanish course at the beginning level - One of the researcher was the teacher in the course	- Three collaborative sessions between the students of five dyads completing a writing task in a FL class were audio and videotaped in a language laboratory and the tapes were transcribed - The class met daily for a period of three hours during a six-week course	- Pairs of students were asked to collaborate in the production of one common essay on three different occasions - Tasks were broadly based on course topics and they should be informative in nature - Three prompts were given: students were asked to write about a trip to Mexico, about popular sports and players in their own country and about eating habits and popular food and restaurants in the USA - All instances of repetition were coded and it was understood to refer to any restatement of either the content or the form of the essay	- Several instances of repetition were found in subjects' in subjects' discourse - Repetition helped the subjects to establish and maintain intersubjectivity between the interlocutors - The role of repetition was to distribute the scaffolded help during the whole activity - Repetition helped the subjects cling to what they had constructed and work on the collective construction of the scaffold

STUDY	FOCUS/ PROBLEMS	SUBJECTS	DATA	PROCEDURE/ ANALYSIS	MAIN RESULTS
Jarvis and Robinson 1997 L2	- An initial framework for analysing verbal interaction between the teacher and primary school classroom in EFL lesson - What pedagogic functions and patterns of responsive discourse can be identified?	- Primary classrooms in Malaysia, Malta and Tanzania, a corpus of 17 lessons - The lessons analysed in Applied Linguistics 1997, 18 took place in a 2 and 5 class in Malaysia - 36 8-9 year-old pupils and their teachers	- Lessons in a naturalistic classroom setting were audiotaped and transcribed later - For the whole study a quarter of the teachers were also interviewed	<ul style="list-style-type: none"> In a year 2 class vocabulary was revised A book was read and its pictures and concepts discussed -The lesson also included word-webs and guessing games - In a year 5 class vocabulary was also revised and a essay writing task was prepared, "A day at the seaside" - Six main groups of pedagogic functions and three main features of patterns were identified	<ul style="list-style-type: none"> Teachers used functions and patterns in their responses The analysis of functions and patterns could help teachers to identify collaborative discourse means by which they could provide support to pupils' learning
Antón and DiCamilla 1998 L2 (see DiCamilla and Antón 1997)	- The nature of the collaborative process and the strategies, especially the use of L1, used by subjects in collaborative activities in the L2 classroom	- Five dyads of adult learners of Spanish in a six-week intensive Spanish class at the beginner level - The L1 of the subjects was English	- The collaborative interactions of five dyads completing a writing task in a FL class were audio taped in a language laboratory and the tapes were later transcribed - Three collaborative sessions were recorded	<ul style="list-style-type: none"> Subjects were asked to plan and write a story in Spanish in pairs Writing tasks were informative in nature: students were asked to write about a trip to Mexico, about popular sports and players in their own country and about eating habits and popular food and restaurants in the USA 	<ul style="list-style-type: none"> The use of L1 was beneficial for language learning The use of L1 had three important functions in the second language learning process within the learners' ZPDs: the construction of scaffolded help, the establishment of intersubjectivity and the use of private speech (PS) L1 was also used to generate the content and to create "a workplace" in which the students were able to help each other

4.2.1 Focus and research problems

This section describes the focus and research problems of the L2 studies in the review. Though all the studies concentrated on the notion of the ZPD and scaffolding, each of them had its own specific research question. Besides, all the L2 studies focussed on the collaborative interaction in a school setting.

Apart from the studies by Aljaafreh (1992), Adair-Hauck and Donato (1994) and Jarvis and Robinson (1997), the L2 studies summarised here concentrated on the nature of scaffolding between peers. Aljaafreh (1992) examined the effects of negative feedback on L2 learning processes among adult learners instructed by one of the researchers. Adair-Hauck and Donato (1994) were interested in the negotiation processes of foreign language grammar explanations between an expert and a novice. Lastly, in the study by Jarvis and Robinson (1997) a framework for analysing instruction between a primary school teacher and L2 classroom was described.

Moreover, as was mentioned above, most of the L2 studies in the review examined collaborative interaction between peers. The study by Brooks and Donato (1994) investigated the nature of scaffolding between pairs of high school students solving a problem of a jigsaw diagram. The scaffolding processes between university students working in pairs or in groups of three in L2 lessons was the focus of the studies by Donato (1994) and Ohta (1995). The studies by De Guerrero and Villamil (1994) and Villamil and De Guerrero (1996) concentrated on the scaffolding in peer revision sessions between university L2 students. Besides, the first of these concentrated on the regulation strategies between the partners. Certain features of collaborative discourse of L2 learners were also an issue of interest in some studies. More specifically, the study by DiCamilla and Antón (1997) examined the role of repetition and that by Antón and DiCamilla (1998) the role of L1 in L2 learning process.

4.2.2 Subjects

This section describes the subjects of the previous L2 studies summarised in Table 5. The L2 studies, like the L1 studies in Table 4, could be divided into

two broad categories according to the age of the subjects. However, the L2 studies did not consider interactions between children. Instead, they concentrated on collaborative interactions between adult experts and child novices, and, especially, those between adult participants.

Most of the L2 studies in the review, that is nine of the ten studies, examined the nature of scaffolding during collaborative sessions between adult participants. The scaffolding process between adult university students was examined in most of the studies (Donato 1994, De Guerrero and Villamil 1994, Ohta 1995, Villamil and De Guerrero 1996, DiCamilla and Antón 1997 and Antón and DiCamilla). The subjects of the study by Brooks and Donato (1994) were young adults studying at high school. In other words, all these studies included peers working together. In the studies by Aljaafreh (1992) and Adair-Hauck and Donato (1994) one of the researchers or the teacher, respectively, was an expert helping university students with their grammar problems. In addition to these studies examining peer collaboration, the study by Jarvis and Robinson (1997) focussed on collaborative interactions between the teacher and pupils in a classroom setting. The pupils were up to nine years of age.

4.2.3 Procedure

This section covers issues concerning tasks used in the studies and instructions given to the subjects. Like the L1 studies, the L2 studies in the review could be categorised broadly as experiments and as studies concentrating on collaborative interaction in a natural classroom setting. Furthermore, as was mentioned in Section 4.2.2, the experiments could be divided into studies that used tasks with only one correct solution and those with an open-ended one.

Most of the L2 studies examined subjects interacting in pairs or small groups while discussing possible solutions for different exercises. In other words, subjects worked on tasks with open-ended solutions. These tasks included essay revision sessions (Aljaafreh 1992, De Guerrero and Villamil 1994, Villamil and De Guerrero 1996), collaborative essay writing tasks (DiCamilla and Antón 1997, Antón and DiCamilla 1998), discussions about texts and exercises (Adair-Hauck and Donato 1994), and plans for an oral

activity (Donato 1994). In contrast, the study by Brooks and Donato (1994) used jigsaw task diagrams for which there was only one correct solution.

Moreover, some of the studies in the review used research methods involving recordings in natural classroom settings. However, as Hammersley and Atkinson (1983:164) point out, even observation or recordings can affect a setting, and, thus, the data of these studies could also be affected by the research process. The studies by Donato (1994), Ohta (1995) and Jarvis and Robinson (1997) were conducted in natural classroom settings and in all of these studies audio- or video-recordings were used as a means of analysis.

Finally, the type of instructions will be discussed. The studies in the review could be divided into three categories by type of instruction given to the subjects, that is, those with precise and minimal instructions, and those with no instructions. In all those studies in which the subjects were given a problem-solving task with only one correct solution, the researcher gave the participants precise instructions how to complete the tasks. In the studies with open-ended tasks, again, minimal instructions were usually given. The studies that were conducted in natural classroom settings did not provide any instructions.

4.2.4 Data and analysis

This section discusses the data and analysis of the L2 studies in the review. Though all the studies examined the nature of scaffolding, the emphases varied, and, thus, different categories were used in the analyses. In all the studies the collaborative interactions between the subjects were audio- or video-recorded and the tapes were later transcribed. In addition, the study by Jarvis and Robinson (1997) used interviews as an additional method to collect data.

As was mentioned above, most of the L2 studies in the review looked into the process of scaffolding between peers, and, thus, different categories to examine this specific type of collaboration were used. The scaffolding process was operationalised based on the definitions of Wood, Bruner and Ross (1976) in the study by Donato (1994) and the regulation levels were adopted from Wersch (1979b) in the study by De Guerrero and Villamil (1994). In the

analysis of the study by Ohta (1995) the functions of asymmetrical collaboration were identified. In addition, Brooks and Donato (1994) and Villamil and De Guerrero (1996) developed specific categories for analysing peer collaboration. In the remaining two studies, namely those of DiCamilla and Antón (1997) and Antón and DiCamilla (1998), instances of repetition and L1, respectively, were identified and analysed.

Moreover, in the L2 study by Aljaafreh (1992), in which the scaffolding process between an expert and a novice was examined, all the instances of the expert's feedback and their effects on the novice's discourse were identified. Furthermore, this study used the different levels of regulation, which were adapted from Wertsch (1979b), and the regulatory scale in its analysis. Similarly, the study by Adair-Hauck and Donato (1994) identified different levels of the ZPD based on the studies by Wertsch (1979b) and Tharp and Gallimore (1993).

4.2.5 Main results

This section discusses the main results of the L2 studies in the review. The results depend on the different research problems, procedures, and analyses, and, thus, the detailed results of the studies in the review also differ. Taken together, however, the main results were fairly similar.

In the L2 studies examining the effect of mutual help in novice-novice interactions among adult students, the results were similar. In contrast to some of the L1 studies, all the L2 studies implied that peer scaffolding was beneficial for all the participants. The roles of the partners in dyads or small groups were flexible, and, thus, all participants both provided and received scaffolded help. In those studies that analysed certain features of collaborative interaction, feedback (Aljaafreh 1992), repetition (DiCamilla and Antón 1997) and the use of L1 (Antón and DiCamilla 1998) were discovered to help the L2 learning process. More specifically, Aljaafreh (1992) pointed out that effective feedback in the ZPD should be contingent on and tailored to the learner's potential level of development. In addition, the study by Adair-Hauck and Donato (1994) that focussed on the interaction between an expert and a novice emphasised the role

of language in co-constructing new knowledge and skills. Their study showed that the ZPD lessons encouraged both the teacher and the student to experiment and take risk.

4.3 Implications of previous studies

The studies on the scaffolding process reviewed in the previous sections all approached collaborative interactions from a Vygotskian perspective. Partly because the Vygotskian ideas have only recently been applied to research on L2 learning, there are questions that remain to be solved in future studies. Many of these relate to the research designs and, especially, the settings where the studies have been conducted. Three issues are of particular interest for the purpose of the present study, that is, the verbal scaffolding strategies used by a teacher, the teacher-fronted interactions, and the classroom as a setting for the process.

Firstly, most of the studies in the review concentrated on the whole scaffolding process in different contexts without specifying the verbal scaffolding strategies used by an expert or a peer. In other words, these studies were also interested in the usefulness of scaffolding for the learning outcomes. Besides, except for the L1 study by Tudge (1990), all the studies implied that scaffolding was beneficial for all participants. However, the present study will attempt to show that the situations in a classroom vary, and, thus, the scaffolding strategies used by a classroom teacher also vary. In order to illuminate the scaffolding strategies used by a teacher, both transcripts, episode patterns and primary functions of the scaffolding strategies will be used as means of analysis in the present study. Furthermore, the present study will endeavour to take the often fast tempo of the lessons and its effects on scaffolded learning into consideration.

Moreover, most of the studies summarised in Sections 4.1 and 4.2 examined collaborative interaction in one-to-one tutorials between an expert and a novice or between peers. Especially, except for the L2 studies by Jarvis and Robinson (1997) and Ohta (1995), all the L2 studies focussed on the scaffolding process in pairs or groups. However, teacher-fronted interactions

are the norm in many primary and secondary L2 classrooms in Finland, and, thus, it is worthwhile to examine whole-class interactions. Accordingly, the present study will aim to contribute to the previous studies by focussing especially on the scaffolding process in teacher-fronted whole-class interactions.

Finally, as was mentioned above, most of the studies reviewed in Tables 4 and 5 were experiments. More importantly, only the study by Jarvis and Robinson (1997) examined teacher-fronted interactions in a naturalistic whole-class setting. However, the primary functions of scaffolding strategies are not context-free, but vary and are adapted to the demands of each communicative event (see Sections 5.6 and 7.6). Therefore, all the specific arrangements and instructions given to subjects have had their effects on the whole scaffolding process. In other words, the previous studies have highlighted many aspects of scaffolding, but studies conducted in naturalistic classroom settings being limited in number, these studies have only been able to examine some aspects of the process in limited contexts. The purpose of the present study will be to illuminate the scaffolded assistance provided by a **teacher** in a naturalistic classroom setting.

5 THE PRESENT STUDY

The starting point of the present study was L2 interaction in its naturalistic classroom setting. The aim was to examine whether the Vygotskian ideas of language learning have application in teacher-fronted whole-class interactions. Furthermore, the study focussed on the possible scaffolded assistance provided by a foreign language teacher in a L2 classroom in a Finnish secondary school.

Firstly, Section 5.1 examines the approach in the present study and the three research questions. Secondly, the data collection, the subjects and the data description are outlined in Sections 5.2 to 5.4, respectively. Finally, in Sections 5.5 and 5.6. the unit and the methods of the analysis are discussed.

5.1 The approach in the present study

The approach in the present study and the research questions are discussed in this section. Firstly, in the present study the data were analysed qualitatively for two reasons. The first reason was related to the aim of the current study, which was to describe L2 learning in its naturalistic classroom setting. A qualitative approach was particularly appropriate for this purpose due to its naturalistic, uncontrolled, subjective and process-oriented features (Reichardt and Cook 1979). Besides, a qualitative approach was chosen while it is consistent with Vygotskian theory, which was utilised in the present study. Vygotskian theory places emphasis on the developmental processes that are based on dialogic interaction. The teacher and pupils are active participants in a joint dialogic activity and the nature of this complex interaction is best unfolded in a qualitative description of its elements and processes.

Secondly, the present study examined the nature of the L2 classroom interaction from a Vygotskian perspective as it was realised by one teacher over a certain period of time. As Larsen-Freeman and Long (1994:11) note, a case study is considered to be appropriate to process-oriented studies on naturalistic speech, and, thus, it was expected to provide insights into the complex process of scaffolding in teacher-fronted whole-class L2 lessons. This

process, as was mentioned in Chapter 4, has not been studied widely from a Vygotskian perspective.

5.1.1 Research questions

As was mentioned before, the aim of the present study was to examine L2 learning in its naturalistic classroom setting. Consequently, the study had three research questions (RQ). The first question paid attention to the applicability of Vygotskian theory to teacher-fronted whole-class interactions in general:

RQ1 Are the Vygotskian ideas, especially the notions of the ZPD and scaffolding, applicable to the study of teacher-fronted L2 (English) interaction in its naturalistic whole-classroom setting in Finland?

Furthermore, some previous studies on language acquisition from a Vygotskian perspective (eg. Tharp and Gallimore 1991, 1993, Ohta 1995) found that scaffolded performance was very limited in teacher-fronted whole-class lessons, and, thus, advocated one-to-one tutorials or pair and group work as an effective form of L2 instruction. However, as Minick (1987:128) points out, the Vygotskian school finds the context of formal school instruction as important for empirical research on assisted performance and a child's development. Consequently, the second research question of the study examined the scaffolded assistance of a teacher in whole-class interactions:

RQ2 What kinds of scaffolding strategies can be found in teacher-fronted L2 (English) lessons in a naturalistic whole-classroom setting in a Finnish secondary school?

The third question focussed on the scaffolding process and examined the variation found within it:

RQ3 What kind of variation in the nature and amount of scaffolding can be found in 11 different L2 (English) lessons taught by one secondary school teacher?

The aim of this study was to discuss the scaffolded assistance in detail and to answer the research questions through an analysis of teacher-pupils dialogue from a Vygotskian perspective.

5.2 Data collection

The data were collected in the spring of 1999 in a medium size urban secondary school in Southern Finland. The teacher, pupils and school were selected randomly. However, an essential criteria for the selection of the teacher was that he or she would give “normal” teacher-fronted L2 lessons in a naturalistic whole-classroom setting and that these lessons could be audio- and video-taped. The teacher who volunteered and who was selected for the research is a friend of the researchers. Besides, the teacher selected the class to participate in the study on the basis of the pupils’ activeness and adaptability. She also informed the principal of the school about the study. Importantly, the teacher or the pupils were not informed of the purpose of the study.

Firstly, two consecutive lessons were observed without any additional coding system other than paper and pencil by both of the researchers to see whether the instruction methods of the teacher were applicable for the present study. More specifically, teacher-fronted instruction was expected. Secondly, 11 consecutive lessons were videotaped with one videocamera in the other front corner of the classroom. Furthermore, the lessons were audio-recorded with three small tape recorders in other corners of the class (see Appendix 3). One researcher used the videocamera and the other made observations on paper of the overall course of the events in the class. These observations were not systematic and worked only as an additional means of aid in the coding process.

Thirdly, before and after the lessons special features and events of the lessons were shortly discussed with the teacher. For example, the teacher told the researchers that the pupils had been restless, because they would have an exam during the following lesson. However, the purpose of the study was never discussed with the teacher. This would guarantee the most natural setting possible for the study. In addition, after the 11 videotaped lessons the teacher

and pupils were rewarded individually with little presents. The class was also given an honorary diploma for having participated in the study.

5.3 Subjects

As was mentioned in Section 5.2, the teacher and pupils were randomly selected for the present study and they were not informed of its aim. The core of the study was a female teacher in her mid-twenties, who had studied English as her major and Swedish as her minor subject in a Finnish university. She had not yet graduated, but she had finished her teacher training studies three years earlier. The teacher had three years of teaching experience in total and two years with this particular group participating in the study. As she also taught this class Swedish, they met each other several times a week. Due to this close teacher-pupil relationship the setting of the study was not influenced by any unfamiliarity between the participants.

The pupils taking part in the study were 17 eighth-grade learners of **English**, with ten boys and seven girls. The pupils were approximately 14 to 15 **years old** of age. They had studied English as a second language from the grade three onwards, that is, six years in total. It is assumed that at this level the pupils have the tools and abilities needed for negotiation with the teacher, and for this reason this grade level was chosen for the present study. As was mentioned above, the pupils were not aware of the focus of the research. Instead, they were told that their teacher would be of interest to the researchers, and, thus, the pupils were expected to behave more naturally in the class. Consequently, the results of the study were likely to be more reliable.

5.4 Data description

The data of the present study consisted of transcripts of 11 lessons recorded in an eighth-grade L2 (English) classroom in Southern Finland in spring 1999. The same teacher instructed all the lessons and her class was the same over the whole period of investigation. The lessons were given in succession during one

period of a curriculum. In addition, as within other expert-novice apprenticeships, the relationship between the teacher and her pupils was asymmetrical with the teacher guiding the joint activities.

For the purposes of the present study 16 episodes of the 11 audio- and video-recorded lessons were chosen. All the episodes chosen concerned grammar teaching. These grammar episodes were chosen on the basis of the method of instruction, that is, they included the most dialogic interaction between the teacher and her pupils in the whole of 11 lessons. The teacher used also other methods of instruction, such as pair and group work, but only those episodes that contained dialogic interaction were chosen for analysis. Furthermore, the study focussed on verbal interaction taking also into account communicative devices, such as intonation, pace and stress.

The episodes chosen for analysis included different grammar topics with different materials, and slightly different interactive teaching methods. The textbook and the practise book used by the class was *Success 8* (Auvinen et al. 1992a and 1992b). The grammar teaching episodes are enlisted in a chronological order in more detail in Table 6:

Table 6. Episodes 1-16.

	TOPIC	MATERIALS	DIALOGIC METHOD	MIN
1	New topic: presenting tag-questions	Sample sentences with tag-questions, grammar rules	The teacher presents sample sentences on a transparency, highlights the differences between their structures and asks questions.	5min 40 sec
2	Old topic: Practising tag-questions	Exercise 8 in the exercise book, a transparency	The teacher asks the pupils to read sentences one by one and asks questions.	3min 59 sec
3	Old topic: Practising the use of the supine form of verbs (past perfect)	Exercise 12 in the exercise book	The teacher asks the pupils to read sentences one by one and asks questions.	5min 16 sec
4	Old topic: Presenting the use of the auxiliary verb <i>have/has/had</i>	No specific materials	The teacher presents the topic and asks questions.	43 sec
5	New topic: Presenting adverbs	No specific materials	The teacher presents the topic and asks questions.	58 sec
6	New topic: Presenting the formation of adverbs	Words and sentences in the pupils' notebooks, a transparency	The teacher presents the topic and asks questions.	1min 13 sec
7	Old topic: Practising the formation of adverbs	Sentences in the pupils' notebooks, a transparency	The teacher asks the pupils to read the words one by one and asks questions.	4min 54 sec

8	Old topic: Practising the use of adverbs	Pictures on a transparency, sentences in the pupils' notebooks	The teacher asks the pupils to read sentences one by one and asks questions.	6min 31 sec
9	New topic: The structure <i>had better</i>	The new grammar structure is first presented in the text and the teacher and pupils do exercise 4A in the exercise book	The teacher asks the pupils to read sentences one by one and asks questions	5min 22 sec
10	New topic: Practising verbs in different tenses	Sample sentences on the blackboard	The teacher presents the topic, asks the pupils to translate the sentences into English and writes the correct forms on the blackboard.	13 min 56 sec
11	New topic: Periphrases of the verbs <i>can</i> and <i>may</i> : <i>be able to</i> and <i>be allowed to</i>	The exercise books and sample sentences.	The teacher asks the pupils to translate sample sentences into English and asks questions about the new topic and the sentences.	4min 42 sec
12	Old topic: Practising the use of the structure <i>be able to</i>	No specific materials	The teacher presents the topic and asks questions	1min 17 sec
13	Old topic: Practising the use of the structure <i>be allowed to</i>	The pupils have written sentences in their notebooks.	The teacher asks the pupils to read their sentences one by one and asks questions about the topic and the sentences.	4min 19 sec
14	Old topic: Practising the use of the structures <i>be able to</i> and <i>be allowed to</i> Focus on the tense	The pupils have written sentences in their notebooks and the teacher writes the correct forms on a transparency.	The teacher asks the pupils to read their sentences one by one and asks questions about the topic and the sentences.	20 min 10 sec
15	New topic: Presenting the periphrase of the verb <i>must: have to</i>	Sample sentences on the blackboard	The teacher asks the pupils to translate the sample sentences into English, writes them on the blackboard and asks questions about the new topic.	9min 2sec
16	Old topic: Practising the structure <i>have to</i>	The pupils write sentences on the blackboard.	The teacher asks every pupil to read the sentence that s/he has written. The teacher and pupils discuss the structures and the teacher asks questions.	12 min

Table 6 presents the 16 different episodes chosen for analysis. As was mentioned above, all the episodes concerned grammar teaching. However, they could be divided into two broad categories: those with new grammar items and those where the teacher and the learners revised old ones. Importantly, all the

episodes included dialogic interaction between the participants. The duration of the episodes varied approximately from one minute to 20 minutes.

5.5 Unit of analysis

The data of the present study were recorded lessons, which Sinclair and Coulthard (1975) consider the highest category of discourse organisation. For the purposes of the study the lessons were broken down into smaller units, which were defined as episodes. A total of 11 lessons were recorded of which 16 episodes concerning grammar teaching were chosen as the unit of analysis (see Section 5.4). In the study, which focussed on the scaffolded assistance provided by a teacher, these episodes consisted of Focus-Build-Summarise patterns (adapted from Jarvis and Robinson 1997, see Section 5.6.2). Accordingly, a teacher either focuses on a new topic, builds the topic chosen further, or summarises the topic. Importantly, a teacher's and a pupil's moves within these patterns and further within episodes are always interdependent. In other words, the analysis implies that both speakers have their turns of speech *in relation* to each other's turns. Consequently, the participants' contributions can be looked at together.

5.6 Methods of analysis

As was mentioned in Chapter 4, previous L2 studies on the scaffolding process from a Vygotskian perspective focussed mainly on experimental one-to-one interactions. Furthermore, most studies did not look at any specific categories of functions or levels of scaffolded learning when investigating the learning process. In the present study, an attempt was made to approach the scaffolding process from a slightly different angle. In addition to investigating the scaffolding process in teacher-fronted L2 lessons in a naturalistic whole-classroom setting, different methods were combined. More specifically, after transcribing the recorded lessons, episode patterns were identified. After this

primary functions of the scaffolding strategies used by the teacher were determined at the four levels of scaffolded assistance.

This section examines the methods of the present analysis. Transcription, episode patterns, primary functions of the scaffolding strategies used by the teacher and levels of scaffolded assistance are discussed in Sections 5.6.1 to 5.6.4, respectively.

5.6.1 Transcription

Transcription was an important part of the analysis of the present study. When researchers transcribe data, they already make some decisions, which have an effect on the whole analysis. Thus, transcription is always affected by researchers' subjective points of view.

Firstly, all the 11 videotapes were recorded on audiotapes, which were then transcribed by one of the researchers (see Appendix 1 for transcription conventions). Secondly, the three additional audiotapes recorded with the small tape recorders in every lesson were listened to, and the transcripts were specified in more detail with the help of these tapes. Finally, the whole process was repeated by the other researcher, and, as a result, some changes and corrections were made to the transcripts. The fact that the transcripts were written and checked by both of the researchers adds to their reliability and accuracy. After selecting 16 grammar teaching episodes for further analysis these episodes were written with the episode patterns on the left-hand column and the primary functions of the scaffolding strategies on the right-hand column of the transcripts (see Appendix 2).

5.6.2 Episode patterns

When identifying a pattern of classroom discourse in teacher-fronted whole-class settings Jarvis and Robinson (1997) found the teacher's responsive utterances and the learners' replies to build larger exchanges than the Initiation-Response-Feedback exchange structure (IRF) suggested by Sinclair

and Coulthard (1975:21). As a result, Jarvis and Robinson identified a pattern larger than the three-part exchange, that is, the *Focus-Build-Summarise* pattern. The features of the pattern applied to the present study can be seen in Table 7:

Table 7. Pattern of classroom discourse (adapted from Jarvis and Robinson 1997):

	PATTERN	DEFINITION
1	Focus	Teacher focuses on a new grammar point or task given and makes it public and shareable.
2	Build	Teacher develops and elaborates the grammar in order to help learners understand it. This elaboration of new grammar usually takes place in interaction with the learners. This section involves the actual scaffolding process.
3	Summarise	This section refers to the pedagogic functions that indicate the end of the grammar teaching episode.

First, the Focus section of the pattern introduces a new topic. In the present study, however, the teacher rarely introduces the next activity with any specific words, but she directs the learners' attention to the next task, for example, by asking directly the next question. Next, the topic is built on in the Build section. The Build section is a crucial part of the teaching process in which Vygotskian appropriation and scaffolding process take place. In other words, when the learners have problems with the tasks given, the teacher helps them continue with their work. Finally, in the Summarise section the teacher indicates with her words that she will move to the next task. In the present study the teacher does not clearly summarise the previous activities like in the examples provided by Jarvis and Robinson. Thus, the Summarise section in the present analysis indicates the end of the episode and not any special summary provided by the teacher.

In the present study the purpose of identifying the episode patterns was to illuminate the structure of the grammar teaching episodes. In addition, identifying first the larger episode patterns made it easier to distinguish the primary functions of the teacher's scaffolding strategies. As Jarvis and Robinson (1997) point out, the Focus-Build-Summarise pattern may help teachers interpret the purpose, sequence and meaning of classroom events. However, as they further remark, this patterning is not always clear in the lesson. There may be many Foci present and the Build section may be omitted, as was the case in some of the present episodes.

5.6.3 Primary functions of the scaffolding strategies

Language functions have been of interest in many studies on classroom interaction (eg. Sinclair and Coulthard 1975, Brown and Wragg 1993, Jarvis and Robinson 1997). Traditionally three major language functions have been identified: statement, question and command. Further, these functions have been understood to have their typical realisations in declarative, interrogative and imperative forms (Sinclair and Coulthard 1975:11). However, when studying language functions in classroom discourse, as was the case in the present study, the relationship of these functions and forms is more flexible. For example, declarative forms can be used to give commands instead of making statements.

As was mentioned above, the aim of the present study was to describe the scaffolding by the teacher, and, thus, the primary functions of the scaffolding strategies were identified (see Appendix 2). According to Jarvis and Robinson (1997), the classroom discourse needs to be understood through its pedagogic functions in order to get a more profound idea of the pedagogic purpose of the interaction. Through these strategies the teacher aims to help learners arrive at self-regulation. In their study on classroom discourse, Sinclair and Coulthard (1975) distinguished 21 discourse acts. For the purposes of the present study these categories were elaborated. More specifically, on the basis of the present data 15 different primary functions of the teacher's scaffolding strategies were identified. In the analysis five new functions were found, that is, explain, repeat, rephrase, direct answer and move to next. In addition, some discourse acts identified in the initial study were excluded. This was done in order to describe the present data as accurately as possible. Table 8 shows the primary functions used in the present study in alphabetical order:

Table 8. Primary functions of the scaffolded strategies used by the teacher (adopted from Sinclair and Coulthard 1975)

SYMBOL	LABEL	DEFINITION
ACC	Accept	Its function is to indicate that the teacher has heard the learner's answer and that the reply was appropriate.
CHE	Check	A real question, that is, the teacher does not know the answer. Its function is to enable the teacher to see if the learners have any problems that could prevent the progress of the lesson.

CLUE	Clue	It functions as additional information that helps the learner to answer the elicitation.
DIR	Directive	Its function is to request for a non-linguistic response
DIRECT ANS	Direct answer	Its function is to help the learner get over a problematic part of the task given and continue the work.
ELIC	Elicitation	Its function is to request a linguistic response. ELIC in the transcripts means that the teacher tries to start her elicitation but is first interrupted.
EVAL	Evaluation	It functions to comment the quality of learner's answer. EVAL <POS> in the transcripts means that the answer is correct and EVAL<NEG> that it is incorrect. If the function of the teacher's response is EVAL<POS/NEG>, the learner's answer is partly correct and partly incorrect.
EXP	Explanation	Its function is to give extra information and to explain the task given further.
MOVE TO NEXT	Move to next task	Its function is to indicate learners that the teacher will move to the next task.
MS	Meta statement	It functions to help learners see the structure of the lesson and to help them understand the purpose of the tasks given and see where the lesson will lead
NOM	Nomination	Its function is to call on or give permission to the next speaker to participate in the discussion.
PRO	Prompt	Its function is to reinforce an elicitation by encouraging the learner and by indicating that the teacher is still waiting for an appropriate answer.
REP	Repeat	It functions to reinforce an elicitation with a repetition and to encourage the learner to answer.
REPH	Rephrase	Its function is to help the learner understand the task given and to encourage him or her to participate in the activity by rephrasing an elicitation in other words.
START	Starter	Its function is to direct learners' attention to the next topic or the next task given.
TRANS	Transfer	Its function is to call on the next speaker because the previous learner has failed to produce an appropriate answer.
< >		When the strategies in the present data have several functions, the second and the possible third function have been marked in parenthesis, eg. ELIC<REP> which means that the teacher repeats her elicitation.

As was mentioned above, five new primary functions of the scaffolded strategies, that is, explain, repeat, rephrase, direct answer and move to next, were found on the basis of the present data. These were frequently used means of scaffolding by the teacher, and, thus, they were counted as separate functions. The definitions of the other ten functions mentioned in Table 8 correspond to those used by Sinclair and Coulthard (1975) in their initial study on classroom discourse.

Moreover, the nature of the present data, that is classroom discourse, has an important effect on defining the primary functions of the scaffolding strategies used by the teacher. In the present data one participant has

acknowledged responsibility for the direction of the discourse, for selecting the next speaker and for introducing and closing the tasks given. In other words, the primary functions of the scaffolding strategies have to be determined by the context in which it is uttered. This situatedness of the meaning of utterances and other problems in defining the primary functions will be discussed in more detail in Section 7.6.

5.6.4 Levels of scaffolded assistance

After defining the primary functions of the scaffolding strategies, four different levels of the teacher's assistance were identified. The aim was to describe different scaffolding strategies used by the teacher and to describe the possible sensitivity of her assistance to the learners' needs. This was achieved by distinguishing different levels of scaffolded learning on the basis of the data analysed. The scaffolded process always being a joint activity these levels corresponded to the learners' different levels of the ZPD. Thus, at the first level of assistance the learners were object- or other-regulated, whereas at the final level they were close to self-regulation. However, because the present study focussed on the scaffolded help provided by the teacher instead of student learning outcomes, the different levels of scaffolded assistance are emphasised in the analysis. More importantly, the descriptions of the levels were not based solely on one of the studies on scaffolded help described in Chapter 3. Instead, several different studies, for example, studies by Wood (1980), Wood et al. (1976), Tharp and Gallimore (1993) and Aljaafreh (1992) were taken into account in identifying the levels in the data. Besides, the stages of regulation (Wertsch 1979a, 1979b, 1985a) and levels of intersubjectivity (Wertsch 1979b, 1985a) were also considered in the descriptions. The results of several studies were combined, because none of them alone was found to describe the levels of the episodes accurately enough. In the analysis (see Chapter 6) the four levels of scaffolded assistance are described in more detail at the beginning of each level.

6 ANALYSIS OF DATA: SCAFFOLDED ASSISTANCE PROVIDED BY THE TEACHER

As was mentioned in Chapter 5, the focus of the present study was L2 interaction in its naturalistic classroom setting. The current study aimed at examining the applicability of the Vygotskian ideas, especially the notion of scaffolding, to teacher-fronted whole-class interactions. More specifically, an attempt was made to describe the possible scaffolded assistance provided by a foreign language teacher in a L2 classroom. In order to achieve this, four different levels of the ZPD and scaffolded learning were identified on the basis of the present data. Furthermore, the idea was to use the episode patterns and the different functions defined in Chapter 5 as a means of describing the teacher's ways of providing scaffolded assistance at the four different levels. In other words, the teacher's scaffolding turns were identified and each of them was further labelled based on its primary function on that particular occasion.

The analysis of the data takes place in three stages. In Stage 1 the general pattern of the episodes analysed is examined. In Stage 2 an answer is sought to research question 2, which is accomplished by describing different scaffolding strategies used by the teacher at the four different levels of scaffolded learning. Finally, research question 3 is answered by comparing the nature and amount of scaffolding found in the episodes.

6.1 Episode patterns

This section describes the episode patterns found in the present data. As was mentioned in Section 5.6.2, the episode pattern larger than the exchange in many of the episodes, that is, the Focus-Build-Summarise pattern identified by Jarvis and Robinson (1997) for their vocabulary lessons, was identified. The episodes analysed begin with an introduction of a new topic in a Focus section. In a Build section the topic under instruction is expanded and brought closer to learners' level of development if they have problems with the tasks given. At the end of the episode in a Summarise section, the teacher indicates with her words that a new task will be given and she directs learners' attention to it.

Though episode patterns were not the primary focus of the analysis, they facilitate identifying the Build sections, especially, where the scaffolding process takes place.

The present data consist of two kinds of grammar episodes, and the nature of these episodes is also reflected in their patterns. Firstly, there are episodes where the teacher introduces the learners to new grammar items or revises old ones (see Table 6 and Appendix 2a: episodes 1, 4, 5, 6, 9, 10, 11, 12, 15). These episodes have one Focus section followed by an extensive Build section, in which the teacher expands the initial grammar item and helps the learners to understand it, and a Summarise section in the end, as indicated on the left hand side in Example 1:

Example 1. Episode 4. Lesson 2. T=Teacher, LF5, LM3, LM8 =Learners

	1	T	hyvä (.)	EVAL<POS>
FOCUS	2	T	mikäs se oli se perfektin apuverbi ↑	START<ELIC>
BUILD	3	T	mikä tarvitaa aina ennen näitä muotoja ↑	ELIC
	4	T	Ville	NOM
	5	LM3	have=	
	6	T	=have ↑	ACC
BUILD	7	T	tai sitte toinen vaihtoehto vielä (.)	PRO
	8	T	Panu	
	9	LM8	had	
BUILD	10	T	had oli se mitä käytettiin siellä pluskvamperfektissä se oli tehnyt jotain (.)	EVAL<NEG> <EXP>
	11	T	Panu	NOM
	12	LM8	has=	
	13	T	=has	ACC
BUILD	14	T	>minkä kans käytettiin has sanaa< (.)	ELIC
	15	T	Heidi ↑	NOM
	16	LF5	yksikön kolmannen	
	17	T	mm (.)	ACC
	18	T	kysyttävää vielä (.) ei (.)	CHE
SUMMARISE	19	T	sitte siirrytää kappaleeseen kykskymmentäviis ↑ (..) so please take out your textbooks (.)	DIR<MS> <MOVE TO NEXT>

In Example 1, the teacher and the learners revise an old grammar item, that is, the past perfect tense. At the beginning of the episode in the Focus section, the teacher starts the next grammar item by asking *mikäs se oli se perfektin apuverbi* (what is the auxiliary verb of the perfect tense) (line 2). However, the teacher's first question does not elicit any response from the learners, and, thus, she starts the Build section by rephrasing her initial question (line 3). After the

learner's correct answer (line 5) she still wants to expand the grammar item in question and asks for another alternative for the auxiliary verb (line 7). However, the next learner's answer is incorrect, and, thus, after a negative evaluation and a further explanation (line 10) the teacher selects another speaker (line 11). After accepting the learner's correct answer *has* (line 13) the teacher further checks that the learners are able to use it correctly (line 14). In other words, the teacher expands the Build section in order to help the learners to understand the task given. At the end of the episode in Summarise section, the teacher directs the learners' attention to the next task. More specifically, Example 1 illustrates an episode pattern that consists of only one Focus section, a long Build section and a Summarise section.

Secondly, in the present data there are episodes where the teacher and the learners go through grammar exercises (see Table 6 and Appendix 2b: episodes 2, 3, 7, 8, 13, 14, 16). The pattern of these episodes differs from those mentioned above in that there are several Foci present and the Build section may be omitted completely, as in Example 2:

Example 2. Episode 3. Lesson 2. T=Teacher, LF2, LF6, LM1, LM3 =Learners

FOCUS	22	T	Kaisa next one please	ELIC<NOM>
	23	LF2	mm<I: am I bought all the food fo:r our tea>	
	24	T	mm [(.)]	ACC
FOCUS	25	T	Miia ↑	NOM
	26	LF2	[(xx)]	
	27	LF6	eeh I've done all the shopping	
FOCUS	28	T	Antti	NOM
	29	LM1	and <i>run</i> without shopping (.) run	
	30	T	mm (.)	ACC
FOCUS	31	T	and Ville ↑	NOM
	32	LM3	eeh (.) aa and brought home the children with me	
	33	T	hyvä (.)	EVAL<POS>

In Example 2, the teacher and the learners go through grammar exercises. At the beginning of each exercise in the Focus sections, the teacher elicits responses from the learners by only mentioning their names (lines 22, 25, 28, 31). This is enough for the learners to produce the correct target sentences (lines 23, 27, 29, 32), and, thus, the teacher does not have to start Build sections. In other words, the learners do not need any further assistance, but they can easily move from one focus to another. The episode patterns

concerning grammar exercises is thus Focus-(Build)-Focus-(Build)-etc.-Summarise, where the Build section may or may not be present. More specifically, the teacher first presents a new focus, and depending on the learners' answers she either builds on the task given further or presents the next focus before the Summarise section.

In sum, the Focus-Build-Summarise pattern found in the present data is generally in accordance with that of the study by Jarvis and Robinson (1997). However, the present data consist of two different kinds of grammar episodes, that is, those where the teacher introduces the learners to new grammar items and those where the teacher and the learners go through grammar exercises. Furthermore, the nature of these episodes is also reflected in their patterns. In other words, the episodes concerning new grammar have only one Focus, whereas those consisting of several exercises have several Foci.

6.2 Levels of the ZPD and scaffolded assistance

As was mentioned in Chapter 5, the present study focussed on the scaffolded assistance provided by the foreign language teacher in whole-class interactions. The aim was to describe the teacher's assistance at the different levels of scaffolded learning. Furthermore, these levels were identified on the basis of the data analysed and several studies on scaffolded help were taken into account in the descriptions of the levels. To look more closely at the ways in which scaffolded assistance is provided by the teacher, the next four sections describe each level and the typical means of help given at each of them. In addition, each level is illustrated with numerous examples in order to clarify the interpretation on which the analysis was based.

6.2.1 The first level of scaffolded assistance

As Vygotsky (1978, 1981) points out, the beginning of a novice's development is carried out on the intermental plane. At the beginning of the first level a novice can be said to be object-regulated (see Section 3.1.3), that is, he or she

is controlled by the environment. A novice is not yet fully involved in the task given and feels incapable of exerting control over it. When an expert starts to explain the task to a novice, he or she may fail to interpret an expert's utterances in terms of the task situation. As Wertsch (1979b, 1985a) points out, this first level is characterised by such a great asymmetry between an expert's and a novice's definitions of the task situation that communication may be very difficult (see Section 3.2.2). In fact, in this situation an expert and a novice may be participating at least partly in different activities, and, thus, they may have different goals for the activity.

However, as Tharp and Gallimore (1993:34) point out, as interaction proceeds an expert may change his or her goal in response to an ongoing assessment of a novice's action. Similarly, a novice's goals may shift in response to an expert's assistance and he or she will no longer be object-regulated. Consequently, a novice becomes gradually more involved in a task given and an expert can guide him or her to complete the activity. In other words, the type of assistance provided from the latter half of the first level onwards can be characterised as other-regulated (see Section 3.1.3).

In the present data there are several episodes where the teacher and the learners do not have symmetrical definitions of the task situation. As Wertsch (1979b, 1985a) points out, in order to be able to collaborate in a task given, it is necessary to construct a social space that will facilitate the completion of the task by enabling the learners to achieve intersubjectivity, that is, a shared perspective on the task. As was mentioned above, participants often start with minimal intersubjectivity, or with a complete lack of intersubjectivity. Thus, according to Wood et al. (1976), a teacher's first task is to direct a learner's attention to a task given (see Section 3.3.1). Example 3 illustrates this function of scaffolded help, which Wood et al. (1976) define as recruitment:

Example 3. Episode 10. Lesson 7. T=Teacher, LF1, LF2=Learners

165	T	mitä erikoista huomaat jos kaikki monikkumuodot menee samallalaila (.) perfektiin verrattuna ↑	ELIC
166	LF2	(xx)	
167	T	mitä erikoista [perfektiin verrattuna ↑] (.)	ELIC <REPH>
168	LF2	[(xx)]	
169	T	Veera	NOM
170	LF1	mitä ↑	

171	T	mitä erikoista perfektiin verrattuna tässä ↑	ELIC <REPH>
172		(.)	
173	LF1	ai nois kahes tollasessa	
174	T	eikä ku tässä (.) tohon edelliseen verrattuna	ELIC <REPH>
175	LF1	no (.) hm (.) no niinku (.) emmä tiä (.) tai siis=	
176	T	=mm Ville ↑	NOM <TRANS>

In Example 3, taken from Episode 10, the teacher revises the forms and use of the different tenses. At the beginning of the example, LF2 is controlled by her environment, that is, she does not pay any attention to the teacher's explanations or questions but talks with her friends. The teacher seems to notice the learner's lack of concentration, and, therefore, after asking a question about the past tense and rephrasing it (lines 165 and 167) she attracts the learner's attention by mentioning her name (line 169). The teacher's question seems to take the learner by surprise, and she overtly indicates that she has not listened by asking *mitä* (what) (line 170). The teacher further tries to achieve intersubjectivity between the learner and herself by rephrasing her initial question once more (line 171). Besides, the teacher uses a rising intonation in her question to invite the learner's participation in the task (line 171). After rephrasing her question the teacher gives time for LF1 to concentrate and to search for the correct answer. However, LF1 is not able to make use of the teacher's repetitions of the question, and she still requests for clarification (line 173) after which the teacher rephrases her question once again. As a result, the learner tries to come up with some answer, and she expresses her inability to solve the problem with several hesitation forms, such as *no* and *hm*, and with pauses (line 175). Finally, the search for the correct answer ends in a recognised failure expressed by the statement *emmä tiä* (I do not know) (line 175). However, the learner still seems to be willing to try to solve the problem, which is indicated by her words *tai siis* (or that) (line 175) but at this point the teacher transfers the question to another learner (line 176).

The learners' total lack of understanding and the teacher's attempts to awaken their interest for the task given is further illustrated with Example 4:

Example 4. Episode 5. Lesson 3. T=Teacher, LF2, LF5, LF6, LM6=Learners

3	T	sitte siirrytää (.) seuraavaa asiaan ↑ (.)	DIR <MS>
4	T	kappaleest tulee esille adverbeja	START
5	LM6	[ei]	
6	LF5	[eikä]	

7	T	mitä adverbit on (.)	ELIC
8	T	mitä ne ilmasee	ELIC <REPH>
9	LF2	jotain (.) mä en tajuu	
10	LF	(xx)	
11	T	mitäs ne ilmasee=	ELIC <REP>
12	LM6	=ei mitää	
13	LF6	paikkaa aikaa tapaa	
14	T	Jonne	NOM

Like Example 3, Example 4 also represents interaction where the learners do not understand the task given. At the beginning of the interaction, the teacher appears to want to help the learners to see the structure of the lesson with her statements *sitte siirrytää (.) seuraavaa asiaan* (then we will move (.) to the next point) and *kappaleest tulee esille adverbeja* (the chapter contains adverbs) (lines 3-4). She also uses emphasis to draw the learners' attention to the next grammar item (line 4). In her next turn she asks the learners a question about adverbs (line 7). She also gives the learners time to come up with an answer. However, the teacher's first question and the pause (line 7) do not elicit any response from the learners, and, thus, she repeats her question (line 8). Right after the teacher's question, LF2 indicates her lack of understanding by stating frankly *jotain (.) mä en tajuu* (something (.) I do not understand) (line 9). The teacher still tries to trigger an appropriate responsive action from the learners by repeating her question (line 11), but this repetition does not bring any appropriate results. Eventually, LF6 gives an answer (line 13). However, it is not the correct one. The teacher does not comment on this, but mentions another learner's name (line 14).

The lack of coherence between the teacher and the learners' definitions of task situations can also be due to one word, which the teacher has to explain by other words, as in Example 5:

Example 5. Episode 12. Lesson 9. T=Teacher, LF1, LF5, LM3, LM4, LM5=Learners

1	T	kuinka (.) mikä oli se rakenne millä se can ver:bi kierrettiin	START <ELIC>
2	LF5	be allowed ((whisper))	
3	LF1	kierrettiin ↑	
4	T	nii ↑	PRO
5	LM5	kierret[tii]	
6	T	[muis]sa aikamuodoissa (.)	CLUE
7	T	Sami	NOM

In Example 5, the teacher starts to revise the use of the modal verb *can*. However, already in her first question (line 1) there is the verb *kierrettiin* (to paraphrase), which causes confusion among the learners. LF1 reveals her lack of understanding by repeating the verb (line 3). She repeats the verb with a rising intonation, and, thus, her turn (line 3) could be analysed as a request for further clarification. The teacher interprets the learner's repetition as a question, but she does not give any further explanations. Instead, she only confirms that the learners have heard the verb right (line 4). She also uses rising intonation, which indicates that she wants to prompt the learners to go on with the problem. This exchange describes the teacher's carefulness of not giving the learners too much assistance, that is, unnecessary explicit clues. However, the learners are not able to pick up on the teacher's prompting, and LM5 repeats the verb once again (line 5). After this second repetition of the verb by the learners the teacher seems to decide that the learners need more information in order to continue with the problem, and, thus, she gives a clue about what she means with her question (line 6). In other words, she tries to elicit a response from the learners by hinting that the question is about the verb *can* in other tenses. In addition to giving a clue, the teacher gives the learners time to think about the problem before she selects the next speaker (line 7).

At the first level of scaffolded learning the learners can feel frustrated when they encounter unfamiliar tasks that they cannot control. Wood et al. (1976) consider this control over frustration as one of the main functions of scaffolded help (see Section 3.3.1). The signs of lack of self-control can be found in several episodes in the data. In these situations the teacher tries to encourage the learners not to give up with the task given, as in Example 6:

Example 6. Episode 9. Lesson 6. T=Teacher, LF1, LF2, LF5, LM1=Learners

45	T	<sitten> neljäs kohta eikö hänen olisi paras viedä Janice sairaalaan (.)	ELIC
46	T	eikö olisi parasta	ELIC <REP>
47	T	kuinka Veeralla on	PRO<NOM>
48	LF1	no kun ei o mitään	
49		(.)	
50	T	mitä Heidil on	NOM<TRANS> <PRO>
51		(.)	
52	LF5	no ei oikeen mitää	
53	T	ei oikeen mut jotain kuitenkin sano se mitä on	PRO
54	LF5	no en (.) no ku ei siin oo mitää (.) järkevää	

55	LF1	* järkevää *	
56	T	Kaisa	NOM<TRANS>
57	LF2	no en minä tommosii oo voinnu osata	
58	LF1	[* kauhee mil äänel *]	
59	T	[voidaan yhes kattoo] (.)	PRO <MS>
60	T	eikö hänen olisi parasta	ELIC<REP>
61	LF1	ku ei nää [(xx)]	
62	LF2	[emmä oo ees] ikinä kuullukkaa [tommosii]	
63	LF5	[(xx)]=	
64	LF1	=onks toi joku perhaps tuol (.) mul on joku semmoin siel	
65	T	no ni jos <had better> ois että olisi parasta ni kuinka tehdä silloin kysymys (.)	EXP<ELIC>
66	T	millä alotetaan (.)	ELIC<CLUE>
67	T	Veera ↑	NOM
68	LF2	[perhaps]	
69	LM1	[mä en tiiä näitä]	
70	LF1	[en minä tiiä]	
71	T	[ei aloteta] perhaps	EVAL<NEG>
72	T	kummalla alotetaan Janicella vai hadillä	CLUE
73	LF2	täh	
74	T	jos täst tehdä kysymys ni miten päin tulee	ELIC<REPH>

In Example 6, the teacher and the learners go through the homework about the structure *had better*. At the beginning of the interaction, the teacher foregrounds one important element of the task by emphasising the first word of the question *eikö* (hadn't) (line 46). In other words, she wants to point out that the task contains a negative question. Because the teacher's question followed by a prompt and a pause does not trigger any responsive action from LF1, the teacher selects another learner (line 50). Like in an exchange with LF1, the teacher uses a long pause in her exchange with LF5 to invite the learner's participation in the activity (line 51). For a response to the teacher's prompting (line 50) LF5 gives an uncertain answer *no ei oikeen mitää* (not really anything) (line 52). The teacher notices the learner's uncertainty and prompts her to give an answer (line 53). She tries to encourage LF5 by saying *ei oikeen mut jotain kuitenkin sano se mitä on* (not really but obviously something please say what you have) (line 53). However, because the teacher's prompt does not trigger an appropriate answer from LF5, the teacher selects a third pupil (line 56). The next learner's reply indicates her frustration. She states *no en minä tommosii ole voinnu osata* (it is impossible for me to do the task) (line 57).

It appears that due to the teacher's several unsuccessful attempts of helping the learners to understand the task given by bare prompting and encouragement, she starts to use other means of assistance (from line 59

onwards). She uses a metacognitive statement *voidaan yhes kattoo* (the task could be done together) (line 59) to tell the learners that they can start the task together from the beginning. With this statement the teacher also offers her support. Besides, the teacher starts to simplify the learner's role in the task by asking only about the first word of the interrogative sentence (from line 65 onwards). As Greenfield (1984:199) points out, this idea of simplifying a novice's role through graduated assistance is central to the scaffolding process (see Section 3.3.1). However, the teacher's first attempt of triggering an appropriate response from the learners (line 65) is not successful. Hence, she gives them a further clue by presenting them two options for the first word of the sentence (line 72). Besides, the teacher repeats her clue (line 74) while LF2 still indicates that she does not understand the question (line 73).

As was mentioned above, at the first level of scaffolded assistance the teacher is often not satisfied with the learners' first answers of not understanding the tasks given. The teacher's persistence of eliciting appropriate responses from the learners is further illustrated with Example 7:

Example 7. Episode 10. Lesson 7. T=Teacher, LF3, LF5=Learners

132	T	mut sitte meil on viel jälellä pluskvamperfekti (.)	MS
133	T	kuinkas sanot minä olin ollut nuori (.)	ELIC
134	T	Sari	NOM
135	LF3	emmä tiä	
136	T	etkä muista ↑	PRO
137	LF3	en	
138	T	Jyri muistaa ↑	PRO<NOM> <TRANS>
139	LM5	mikä ↑	
140	T	olin ollut nuori ↑ [(.)]	ELIC <REP>
141	LM5	[ai]	
142	T	mikä laitetaan (.) haven ja hasin paikalle vaa	CLUE
143	LM5	mikä	
144		(.)	
145	T	Panu	NOM<TRANS>

In Example 7, like in Example 6, the teacher prompts the learners to come up with an answer in spite of the learners' frank statements of not knowing the correct answer. The teacher emphasises the word *muista* (remember) (line 136) though LF3 uses the verb *know* in her statement (line 135). By doing this, the teacher seems to want to indicate that they have already learnt this structure.

Thus, the teacher's question can be interpreted as an encouragement. In addition, the teacher uses the statement *Jyri muistaa* (Jyri remembers) (line 138) in order to prompt and encourage another student. Because her encouragement does not bring about the result desired, the teacher repeats the sentence in question and gives LM5 time (line 140). She also provides LM5 with a further clue by asking *mikä laitetaan (.) haven ja hasin paikalle vaa* (what must be written instead of the verbs have and has) (line 142). Because the teacher's pause (line 144) does still not help LM5 to answer the question, the teacher selects another learner (line 145).

As the examples of the first level of scaffolded assistance above show, the teacher often uses repetition at the beginning of the interaction to create intersubjectivity between the learners and herself. Yet, the teacher can also start the process by giving several clues right from the start, as in Example 8:

Example 8. Episode 1. Lesson 1. T=Teacher, LF1, LM5=Learners

40	T	mitäs keksisitte (..)	PRO
41	T	mikä verbi on can verbi (..)	ELIC
42	LF1	mitä mikä verbi se on	
43	T	millases käytös se on	CLUE
44	T	sil on hienompi nimiki	CLUE
45	T	Jyri	NOM
46	LM5	en tiää	
47	T	etkö ↑=	PRO
48	LM5	=en	
49		(..)	
50	T	mikä verbi (.) on can verbi (..)	ELIC<REP>
51	T	meil on piip verbejä ja pääverbejä	CLUE

In Example 8, the term *auxiliary verb* causes problems. Because the teacher's initial question followed by long pauses (lines 40-1) does not elicit any appropriate responses, the teacher gives the learners additional clues (lines 43-4). With her clues, *millases käytös se on* (in what kind of use it is) (line 43) and *sillä on hienompi nimiki* (it also has a finer name) (line 44), she appears to want to suggest that the question is about a special verb whose function is different from those of regular verbs. However, LM5 still does not come up with the correct answer, and the teacher further prompts him to think about the question by asking *etkö* (do you not know) (line 47). After a long pause (line 49) the teacher repeats her question and gives a further clue by mentioning *meil on piip verbejä ja pääverbejä* (there are "piip" verbs and main verbs) (lines 50-1).

In sum, as the examples above illustrate, the learners are still object-regulated or strongly other-regulated at the first level of scaffolded learning. Besides, since the learners do not have a clear definition of the task situation, the teacher's first task is to try to create a shared intersubjectivity between the learners and herself and to direct their attention to a task given. In order to achieve this, the teacher in the present data often repeats and rephrases her initial questions as well as gives clues about the task. The first level of scaffolded help is further characterised by the teacher's statements of the activity itself. With these statements she tries to define the activity in concrete terms, and, thus, also to reduce the learners' frustration. She uses rising intonation, emphasis, encouragement and prompting to invite the learners to participate in the activity. Providing the learners with time to come up with an answer is also a frequently used means of assistance by the teacher in the data. As expected, turn taking at the initial level is uneven favouring the teacher.

6.2.2 The second level of scaffolded assistance

The **second** level of scaffolded assistance is still carried out on the social or intermental plane. As was mentioned above, from the end of the first level a novice starts to be more involved in a task given, which is achieved through communicative interaction between an expert and a novice. As Wertsch (1984:7-18) points out, without this dialogic negotiation it is nearly impossible to discover a novice's ZPD.

At the second level of scaffolded help a novice is still incapable of working alone on a task given, and, thus, an expert's assistance is necessary for him or her to continue the task activity. In other words, he or she is strongly other-regulated in a task. In addition, in contrast to the first level of scaffolded help in which a novice demonstrates only little comprehension, at the second level a novice begins to participate appropriately. However, communication problems may still arise because of asymmetries in mutual understanding.

Due to the differences between the situation definition of the teacher and that of the learner, the beginning of the task activity is still slow and problematic at the second level of scaffolded help (see Section 3.2.2). In

contrast to the previous level, however, the teacher is able to help the learners to begin to understand the task given with encouragement followed by clues. The learners are still uncertain of their abilities to complete the tasks, and, thus, the teacher encourages them to participate in the activity, as in Example 9:

Example 9. Episode 7. Lesson 4. T=Teacher, LM1=Learner

55	T	entäpä <houkuttelevasti>(.)	ELIC
56	T	mennääkö liian nopeesti ↑ (.)	CHE
57	T	houkuttelevasti	ELIC <REP>
58	T	Antti osaa sanoa ↑	PRO<NOM>
59	LM1	emmä osaa	
60	T	osaat (..)	PRO
61	T	kato ku tääl on <tempting> houkutteleva ni kuinka houkut- houkuttelevasti	PRO<CLUE>
62	LM1	no temtly	
63	T	temp:-	PRO
64	LM1	no emminä tiä=	
65	T	=ton sanan perää vaa äI yy	CLUE
66	LM1	mitä	
67	T	tänne vaa äI yy ni [tulee]	CLUE<REPH>
68	LM1	[TEMP]tingly	
69	T	mm temptingly (.)	ACC

In Example 9, the teacher and the learners go through exercises that deal with adverbs. At the beginning of the episode after presenting the next task (line 55) the teacher checks whether she gives the learners enough time to think about the sentences by asking them *mennääkö liian nopeasti* (do we proceed too quickly) (line 56). By asking this she checks whether the learners have understood the previous sentences and whether they want to ask something. It seems that with this checking the teacher also wants to invite the learners to participate actively in the task. Because the learners do not answer anything, the teacher repeats the task and selects the next speaker (lines 57-8). In addition to mentioning the learner's name, she states with a rising intonation *Antti osaa sanoa* (Antti can say) (line 58). It is interesting that the teacher says this in the form of a statement rather than a question. It could be interpreted that with this statement the teacher wants to encourage LM1 to take over the task. Furthermore, after LM1 has said that he cannot do the task, the teacher repeats *osaat* (you can) (line 60). With this further repetition she seems to want to strengthen the learner's self-assurance.

However, the encouragement and a pause (lines 58 and 60) fail to get LM1 to begin the task given, and, therefore, the teacher gives the learner a clue (line 61). She starts to break down the task for the learner by referring to the basic form of the adjective in the text. Wood et al. (1976:98) define this means of assistance as “reduction in degrees of freedom” (see Section 3.3.1). In addition, the teacher uses L1 to help the learner to make sense of the meaning of the L2 form. In other words, she compares the forms *tempting* and *temptingly* in L1 to help the learner to complete the task. This clue finally triggers the learner’s responsive action (line 62). However, his answer is not correct, and, thus, the teacher further helps LM1 to complete the target structure by giving him the first syllable of the adverb (line 63). Because the learner is still confused, the teacher narrows down the problem further by referring to the ending of the adverb (lines 65 and 67). As a result, LM1 gives the correct answer (line 68).

As was mentioned above, the learners are still strongly other-regulated at the second level of scaffolded assistance, and, thus, explicit help is needed from the teacher. The teacher sometimes has to provide a correct answer herself. However, the learners are not always able to make use of the correct answer to complete the task, as illustrated with Example 10:

Example 10. Episode 14. Lesson 9. T=Teacher, LM6, LF2=Learners

179	T	minä olen aina saanut katsoa englantilaisia filmejä (.)	ELIC
180	T	perfektissä (.)	CLUE
181	T	Ville	NOM
182		(.)	
183	LM6	tä en tiä	
184		(.)	
185	T	viitonen (.)	ELIC
186	T	mites sanot minä olen ollut	CLUE
187	LM6	I was been	
188	T	mm ei was vaan I:-	EVAL<NEG> <PRO>
189	LM6	had	
190	T	I have been (.)	DIRECT ANS
191	T	kuinka jatkat. (.)	PRO
192	T	sitte se aalla alkava sana	CLUE
193		(.)	
194	LM6	emmä tiä	
195		(.)	
196	T	mikä lukee isolla ylhäällä (.)	CLUE
197	T	biin jälkeen	CLUE
198		(.)	

199	LF2	[((laugh))]	
200	LM6	[no <i>allowed</i>] mikä toi on (.) [<i>allowed</i>]	
201	T	[joo ↑] (.)	ACC
202	T	ja katsoa	PRO
203	LM6	watch	
204	T	englantilaisia	PRO
205	LM6	emmä tiä	
206	T	English	DIRECT ANS
207	T	ja elokuvia	PRO
208		(.)	
209	LM6	films (.) movies	
210	T	movies films (.)	ACC
211	T	ja always sanan paikka kahden verbin välissä (.) I have always (.) muut paikat ei kelpaa	EXP

In Example 10, taken from Episode 14, the teacher and LM6 practise the structure *to be allowed to* in the perfect tense. Because the mere reading of the task followed by a pause (line 179) does not elicit any responses from the learners, the teacher provides a clue for the tense of the target structure (line 180). The long pauses (lines 182 and 184) have an important function both in engaging the learner in the activity and giving him an opportunity to come up with an appropriate response. However, because LM6 does not answer anything, the teacher still tries to elicit a response from him by repeating the number of the task sentence (line 185). The learner's incapability to make any use of the teacher's questions, clues and pauses at the beginning of the episode is evidence of asymmetries that still exist between the teacher's definition of the task situation and that of the learner's. As a result, the teacher gives LM6 a further explicit clue by breaking down the target sentence (line 186). In contrast to the first level, the learner at the second level of scaffolded learning is able to produce a response without the teacher's further explanations. However, the answer is not completely correct, and, thus, the teacher gives him a further clue by emphasising the first word *I* of the target sentence (line 188). Due to the learner's incapability to make use of the teacher's emphasis, the teacher decides to provide the correct answer herself (line 191). However, the provision of the correct answer is not effective, and, thus, the teacher continues providing explicit clues by referring to the first letter of the verb and eventually to the model on the board (lines 193 and 197-8). It is interesting that in spite of the learner's weak knowledge of the target structure, the teacher still continues demanding the learner's active participation by further breaking down the sentence and providing prompts (lines 202-8). Though the locus of control in

this episode is with the teacher, the participants are able to construct a dialogue that enables the learner to produce the target sentence word by word. In addition, in the end the teacher wants to extend the learners' knowledge by referring to the grammar rule (line 211).

In spite of long pauses provided by the teacher, the learners are not able to work alone on the task at the second level of scaffolded learning. They still need the teacher's explicit clues. Furthermore, at the end of the exchange the teacher often summarises the partial answers provided by herself and the learner during the scaffolding dialogue to help the learners understand the target structures, as in Example 11:

Example 11. Episode 14. Lesson 9. T=Teacher, LM9=Learner

134	T	Kimmo en saanut	ELIC<NOM>
135		(..)	
136	LM9	mm	
137		(..)	
138	LM9	((laugh))	
139	T	milläs alotetaa millä sanalla ↑=	PRO
140	LM9	=I	
141	T	ja (.) sitte imperfektissä olla verbi (.)	CLUE
142	T	mm ↑	PRO
143	T	mikä on imperfektissä olla verbi (.)	CLUE<REPH>
144	T	<miten sanot minä olin>	CLUE
145	LM9	I was	
146	T	mm (.)	ACC
147	T	ja miten jatkat wasin jälkeen ↑ (.)	PRO
148	T	I-	PRO<CLUE>
149	LM9	I wasn't	
150	T	mm ↑	PRO
151	LM9	be allowed to watch a film	
152	T	mm ↑ (.) biitä ei vaa tarvita ku meil oli jo se wasn't se oli se olla verbi I wasn't allowed to watch teevee (.)	EVAL <POS/NEG> <EXP>

In Example 11, the teacher and the learners practice the structure *to be allowed to*. At the beginning of the example (lines 134-5), the teacher makes an attempt to elicit a response from LM9 by only saying the sentence in L1 and giving him time. The learner's hesitation *mm* followed by a long pause (lines 136-7) could be interpreted as the learner's confusion and incapability of even to start the task. The learner's laugh (line 138) is further evidence that the learner is strongly teacher-regulated in the task. Furthermore, his laugh indicates his frustration of failing to control the task. After interpreting these signs of lack of

self-control by the learner the teacher starts to simplify the learner's role within the task. She prompts the learner by asking her for the first word of the target structure (line 139). In other words, she starts to give the learner explicit help after noticing that the learner's knowledge of the target structure is weak.

Moreover, in Example 11, the learner's total reliance on the help supplied by the teacher is manifested in his inability to make use of the teacher's clue *sitte imperfektissä olla verbi* (next the verb *be* in the past tense) and the teacher's prompt (lines 141-3). After this the teacher gives LM9 an even more explicit clue by asking him *miten sanot minä olin* (how do you say *I was*) (line 144). Besides, she pronounces this last clue in a slow tempo, which suggests that she wants to foreground the problematic verb form. Wood et al. (1976) consider this marking of difficult features as one of the main functions of scaffolded help (see Section 3.3.1). After the learner's partial answer the teacher prompts the learner to continue with the sentence (line 147) and after a further pause she repeats the first word of the sentence (line 148). What is also significant in the example is that the teacher breaks down the task for the learner by asking first for the positive form of the sentence and only after that for the negative one. It could be interpreted that by changing the original sentence first into the positive one the teacher wants the learner to complete the task step by step. Eventually, the teacher summarises all the bits of the correct answer (line 152). Importantly, she does not only provide the correct answer, but also corrects a lexical error and gives a grammatical explanation for it.

Though the beginning of the learning process at the second level can be problematic, the different scaffolding strategies used by the teacher often make the learners take an interest in the task given. The teacher's positive feedback is an important means of assistance in rewarding efforts made by the learners and their involvement with the task, as in Example 12:

Example 12. Episode 13. Lesson 9. T=Teacher, LF7, LM2=Learners

38	T	neljä (.) me emme voineet (.) <saada lippuja> popkonserttiin (.)	ELIC
39	T	Mari	NOM
40	LF7	mist mä tiedän	
41	T	imperfekti (.)	CLUE
42	T	mikäs on olla verbi imperfektissä	CLUE
43	LF7	was	
44	T	tai	PRO

45	LF7	were	
46	T	were ↑	ACC
47	T	nyt käytetään tässä persoonassa sitä were (.)	EXP
48	T	kuinkas tulis (.)	PRO
49	LF7	no emmä tiedä onkse toi se were able to	
50	T	mm ↑ (.)	ACC
51	T	tai sitte lisätään viel kieltosana were sanan jälkeen. (..)	PRO <CLUE>
52	T	mikä on se kieltosana	ELIC
53	LF7	>nii mikä<	
54	T	Mikko	NOM <TRANS>
55	LM2	weren't	
56	T	mm (.) we were not=	ACC
57	LF7	=mä meinasin just [sanoo]	
58	T	[hyvä ↑] (.) hyvä (.) we were not able to	EVAL <POS>
59	T	tai we couldn't <get the tickets> to the popconcert	EXP
60	LF7	onkse ihan sama kumpi siin periaattees on niinku jossain kokeessakii	
61	T	on periaattees (.)	ACC
62	T	couldissa on vaan se että (.) sil on se sivumerkitys voisi (.) ni voit mieluummin käyttää tätä tää on ainaki aina oikein	EXP

In Example 12, the teacher and the learners practice the structure *to be able to*. LF7 is strongly teacher-regulated, and she cannot continue alone when the teacher provides him only with an implicit clue about the tense of the target structure (line 41). After the failure of the implicit help the teacher starts to give the learner more explicit clues (line 42 onwards). Besides, after prompting the teacher explains the use of the verb form to LF7 (line 47). As a result, the learner starts to put the teacher's help to use (line 49). She still needs other-assistance, which is indicated in her answer that is in the form of a question instead of a statement (line 49). Furthermore, her words *no emmä tiedä* (well I do not know) (line 49) before her answer could be interpreted as *private speech*, which is a sign of uncertainty. However, her use of private speech could also be interpreted as a sign of an initial control over the construction. In other words, LM7 begins to help herself with her own words. Besides, the learner shows an increasing interest with her statement *mä meinasin just sanoo* (I was about to say) (line 57) and her question about the use of the structure (line 60). To encourage the learner's efforts the teacher uses strong positive feedback (line 58). Furthermore, she explains the target structure by giving an alternative (line 59).

As was mentioned above, at the second level of scaffolded help the learner cannot initially work alone on the task given. Consequently, the teacher has to start to give scaffolded help with explicit clues one of which is providing options, as in Example 13:

Example 13. Episode 13. Lesson 9. T=Teacher, LF1=Learner

64	T	<mutta olemme voineet katsoa> sitä teeveestä (.) tai sen teeveestä	ELIC
65	T	Veera	NOM
66	LF1	no (.) emmä sit oikee tiä	
67	T	perfekti (.)	CLUE
68	T	käytetääks me sanan kanssa have vai has ↑	CLUE
69	LF1	mitä ↑	
70	T	me sana (.) we (.) käytetääkö have vai has	ELIC <REPH>
71	LF1	no have	
72	T	have (.)	ACC
73	T	sitte olla verbi kolmannes muodossa (.)	CLUE
74	T	be was were-	PRO<CLUE>
75	LF1	been	
76	T	been	ACC
77	T	ja sitte	PRO
78	LF1	mikä onkse able to	
79	T	mm (..)	ACC
80	T	oliko jollain kaikki oikein (.) kenellä oli vähintään kolme oikein (.) joo-o ↑ (.) kenellä oli ainakin yksi oikein (.)	CHE
81	T	hyvä	EVAL<POS>

In Example 13, taken from the same Episode 13 as Example 12, the teacher and LF1 continue working on the structure *to be able to*. Because the learner does not benefit from the teacher's implicit clue about the correct tense (line 67) the teacher presents the learner different options for the correct verb form (lines 68 and 74). On both occasions this means of scaffolded assistance triggers an appropriate response from the learner (lines 71 and 75). Besides, at the end of the exchange the teacher focuses the learners' attention on the goal of the task by checking how many of them have the sentences correct (line 80). To further encourage the learners and to summarise the whole episode the teacher also provides positive feedback (line 81).

At the second level of scaffolded learning, the learners are still very uncertain about working on the tasks given, and, thus, they sometimes suspect that they have made mistakes even in their correct answers. To reduce this uncertainty the teacher uses metastatements and positive feedback for even partially correct answers, as in Example 14:

Example 14. Episode 14. Lesson 9. T= Teacher, LM3, LM4=Learners

60	T	vielä kaksi jäljellä	MS
61	T	viisi (.) toivon että voit tulla elokuviin ensi lauantaina mikä aikamuoto ↑ (.)	ELIC
62	T	Sami	NOM
63	LM4	futuuri (.)	
64	T	se on futuuri	ACC
65	T	kuinka Ville tekis futuurin ↑	ELIC <NOM>
66		(.)	
67	LM3	eeh (.) I hope (.) eeh eiku=	
68	T	=joo ↑ hyvä (..)	EVAL<POS>
69	T	I hope <that you>	PRO <CLUE>
70	LM3	you will (.) come	
71	T	mm (.) you will (.) on iha oikein ↑ (.) mut sitte pitää lisätä se olla verbi ↑	EVAL <POS/ NEG><CLUE>
72	LM3	you will-	
73	T	mikäs on olla verbin perus[muoto]	ELIC <CLUE>
74	LM3	[be]	
75	T	be ↑	ACC
76	T	ja sitte ↑=	PRO
77	LM3	=able to (.) come	
78	T	elokuviin	PRO
79	LM3	to the movies	
80	T	ensi lauantaina	PRO
81		(.)	
82	LM3	se on (.) ne:	
83	T	next:=	PRO<CLUE>
84	LM3	=next (.) <Saturday>	
85	T	kyllä ↑ (.)	ACC
86	T	huomatkaa viikonpäivät englannissa isolla ↑ (.) iso äs se Saturday ↑	EXP

In Example 14, the teacher and the learners go through exercises that deal with the structure *to be able to* in the future tense. The teacher starts this example with the metastatement *vielä kaksi jäljellä* (still two exercises left) (line 60). With this statement she seems to want to help the learners to see where they are heading. Another interpretation would be that with this statement she wants to encourage the learners to maintain their focus on the tasks given. According to Wood et al. (1976), this direction maintenance is one of the main functions of scaffolded help (see Section 3.3.1). In addition, the teacher prompts LM3 to continue his response by giving time (line 66). LM3 indicates with his hesitation *eeh eeh* (line 67) that he is uncertain about the task. Besides, he begins to suspect that his previous words were not correct. When the teacher notices the learner's doubts, she quickly gives LM3 positive feedback (line 68). With this positive evaluation she appears to want to encourage the learner to continue. Besides, in her next turn (line 69) the teacher repeats the learner's

words and adds the next two words of the target sentence. In his next turn (line 70) LM3 adds the further next two words. However, his answer is only partially correct, and, thus, the teacher responds to it by giving partly positive and partly negative feedback. It appears that the teacher wants to emphasise that LM3 is not completely wrong. In addition, she gives further clues (lines 71 and 73) to help LM3 to continue. At the end of the exchange, the teacher prompts the learner by repeating the words of the sentence one by one (lines 78-80). When LM3 can produce only the first syllable of the word *next*, the teacher provides the whole word (line 83), and the learner continues alone producing the rest of the whole structure *next Saturday* (line 84). In other words, the teacher and LM3 collaborate in searching for the correct answer, and, thus, they work in a joint activity (see Section 3.1.2). In the end the teacher corroborates the success of the search and gives a further explanation by referring to grammar rules (lines 85-6).

In sum, at the second level of scaffolded learning the learners are still strongly other-regulated. Consequently, the teacher has to intervene directly, and explicit help is necessary for the learners to work on the tasks given. In order to help the learners to participate in the activity the teacher in the present data starts breaking down the tasks for them, that is, she often concentrates first on the tense of the verb and only after that on the other words of the sentence. In addition, she continues to use repetition, prompting, pauses and emphasis as means of scaffolded assistance. At the second level of scaffolded assistance the teacher also explains the learners the tasks by providing options, explaining different meanings in L1 and giving different clues, such as the first syllables and words of the tasks. Furthermore, she often supplies the correct answers, which often fails, however, to get the learners to continue their work. In contrast to the first level of scaffolded help, at the second level the learners are able to construct an effective dialogue with the teacher and to produce appropriate answers. Thus, the teacher often summarises the learners' and her own partial answers and refers to grammar rules at the end of each exchange. Most importantly, however, at the second level of scaffolded help the teacher provides positive feedback even for the learners' partially incorrect answers. This is necessary as the learners are often uncertain of their ability to complete the tasks given, and, thus, they need the teacher's encouragement. In spite of

the teacher's strong control of the situation at the second level of scaffolded help, the teacher tries not to give too much direct assistance, but encourages the learners gradually to take over the tasks.

6.2.3 The third level of scaffolded assistance

At the third level of scaffolded assistance, like in the previous levels, performance is still carried out in the interpsychological plane of functioning. However, at the third level a novice's definition of the situation is almost in accord with that of an expert's, and, thus, there is growing intersubjectivity between the interlocutors (see Section 3.2.2). As Trevarthen (1979:530) puts it, participants "have joint patterns of awareness", and from that point on communication between the interlocutors will be smoother.

Moreover, a novice clearly takes over some of the responsibility for regulating his or her own activity. He or she is able to carry out a task given with minimal help from an expert, since intraindividual functioning in a novice has increased. Although a novice is still other-regulated, the transition from other-regulation to self-regulation has begun. One sign of the emergence of self-regulation at this level is a novice's use of *private speech* (see Section 3.1.3), which mimics an expert's previous other-regulation.

As was mentioned above, at the third level of scaffolded help the teacher and the learners have almost symmetrical definitions of the task situations. Though the learners show now greater control over the target constructions, they are still sometimes uncertain of their abilities to work on the tasks given. In contrast to the previous levels, however, the teacher's implicit help triggers the learners' responsive action, as in Example 15:

Example 15. Episode 11. Lesson 8. T=Teacher, LF1, LF3=Learners

79	T	entäs sitte (.) <kuinkas Sari sanois että> (.)	PRO<NOM>
80	T	sinulla on ollut <lupa ostaa> >kirjoja<	ELIC
81	LF3	>emmä tiää<	
82	T	on ollut lupa (.)	ELIC<REP>
83	T	käytetään perfektiiä	CLUE
84	LF1	hä	
85		(.)	

86	LF3	eeh (.) oisko jotain että you have been (.) <i>allowed to</i> (.) mikä se oli	
87	T	ostaa kirjoja	PRO
88	LF3	buy books	
89	T	mm (.)	ACC

In Example 15, the teacher and the learners practise the structure *to be allowed to*. At the beginning of the exchange, the learner seems to be uncertain of her knowledge of the task activity. Her words *emmä tiä* (I do not know) (line 81) indicate that she has not full control over the target structure. These words could also be interpreted as *private speech* through which the learner tries to gain control over the new problem (see Section 3.1.3). The teacher seems to notice that though the learner is uncertain, she tries to make sense of the task. In consequence, the teacher continues to elicit a response from the same learner instead of selecting another one. In other words, the teacher repeats her initial elicitation, gives a clue about the correct tense and provides time (lines 82-5). Importantly, the learner can now make use of the teacher's implicit clue and does not need any explicit clues to provide an appropriate response. The learner's use of a hesitation *eeh* and pauses (line 86) is further evidence that she attempts to gain self-control. However, LF3 is still uncertain of the task given, which is also indicated in her answer that is provided in the form of a question instead of a statement (line 86). At the end of the exchange, the teacher ignores the learner's incorrect pronunciation and prompts her further to complete the task (line 87).

At first the learners are sometimes confused concerning the new tasks given. However, after initial "false starts" the learners quickly re-establish coherence and they are able to make use of the teacher's minimal help, as in Example 16:

Example 16. Episode 14. Lesson 9. T= Teacher, LF2=Learner

12	T	entäpä toinen (.) minä en voinut tavata häntä eilen mikä aikamuoto ↑ (.)	ELIC
13	T	<en voinut tavata häntä eilen ↑> (.)	ELIC<REP>
14	T	miten se olis myönteisenä (..)	CLUE
15	T	Kaisa	NOM
16	LF2	minä tapasin hänet viime ((mumble))	
17	T	mm (.)	ACC
18	T	tapasin pystyin tapaamaan (.) mikä aikamuoto se on	ELIC
19	LF2	preesens (..) imperfekti kai ((whisper))	

20	T	imperfekti (.) hyvä	EVAL<POS>
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In Example 16, the tense of the target sentence causes problems. The teacher's repetition of the sentence and pauses fail to get the learners to provide any responses (lines 12-3). In order to help the learners to start working on the task given the teacher converts the original negative sentence first into an affirmative one. After the learner's correct answer (line 16) the teacher emphasises the verb form and asks about the tense of the structure (line 18). Though LF2 is now able to make use of the teacher's scaffolded help, her first answer is incorrect (line 19). However, after her incorrect answer followed by a pause LF2 comes up with the correct verb form by herself (line 19). In other words, though the learner still needs some help, the teacher's first elicitation of a responsive action and an emphasis of the verb form (line 18) are enough for LF2 to assume greater responsibility in the task given. In addition, the learner's word *kai* (maybe) (line 19) and whispering indicate that she is still uncertain of the correctness of her answer. In her next turn (line 20) the teacher seems to want to reduce this uncertainty with the repetition of the correct answer and with a positive evaluation.

As was mentioned above, at the third level of scaffolded learning the learners need only implicit help from the teacher to correct their errors. They are now able to assume greater responsibility and show better performance than at the previous levels. The teacher's mere emphasis of the place of the problem is often enough for the learners to notice the errors, as in Example 17:

Example 17. Episode 2. Lesson 1. T=Teacher, LF5=Learner

68	T	ja kaheksas Heidille	ELIC<NOM>
69	LF5	mm that's enough for now aren't it	
70	T	that's (.) that is enough for now	EVAL <POS/NEG> <CLUE>
71	LF5	no (.) isn't it	
72	T	hyvä	EVAL<POS>

In Example 17, the learner makes a mistake in the verb form of a tag question. After the teacher selects the next speaker and mentions the number of the exercise (line 68), LM5 immediately provides a response (line 69). However, there is a mistake in the learner's answer, and, thus, the teacher does not accept

it completely. Instead, the teacher provides LF5 a clue about the nature of the mistake by repeating the beginning of the answer and by emphasising the correct verb form in the first part of the target structure (line 70). According to Wood et al. (1976), this marking of critical features is one of the main functions of scaffolded assistance (see Section 3.3.1). This minimal help that does not go beyond identifying the nature of the error is enough for LF5 to take over and to finish the correction herself. In her turn *no (.) isn't it* (line 71) the learner mimics the teacher's previous other-regulation by saying *no*, and, thus, she uses *private speech* to control herself before providing the correct answer *isn't it* (see Section 3.1.3). In other words, the teacher's mere implicit help in the form of emphasis helps LF5 to notice the error herself. This is evidence of the learner's increasing self-control over the task. At the end of the exchange, the teacher gives LF5 positive feedback for the correct response (line 72).

At the third level of scaffolded assistance the amount of help that the learners need to complete the tasks given is significantly reduced. In addition, the learners are often able to evaluate the correctness of their own answers, as in Example 18:

Example 18. Episode 14. Lesson 9. T=Teacher, LF6, LM2=Learners

51	T	entäpä nelonen äiti on voinut auttaa meitä mikä aikamuoto (.)	ELIC
52	T	Miia	NOM
53	LF6	onkse perfektti	
54	T	on (.)	ACC
55	T	osaisko Mikko tehdä ↑	PRO <NOM>
56	LM2	mum have (..) been able to help us	
57	T	mm ja äitiko on vielä hän yksikön kolmas ni haven paikalle laitetaaki=	EVAL <POS/NEG> <CLUE><PRO>
58	LM2	=has	
59	T	has. hyvä ↑ (..)	EVAL<POS>

In Example 18, taken from Episode 14, the teacher and the learners go through exercises about the structure *to be able to*. After the teacher's question about the tense of the target sentence (line 51) and the learner's correct answer (53), the teacher prompts another learner to translate the whole target sentence into English (line 55). It is interesting that when answering the teacher's question LM3 makes a pause after an incorrect verb form *have* (line 56). This pause could be interpreted as the learner's suspicion that something is wrong with his

answer. However, he is not yet able to produce the correct verb form without help from the teacher. Consequently, the teacher indicates that something is wrong in the learner's answer by giving a clue of the correct structure and by prompting him to complete the answer (line 57). LM3 is immediately able to make use of the teacher's clue and to produce the target structure (line 58). At the end of the exchange, the teacher provides LM3 reassurance by repeating the learner's correct verb form and by giving him positive feedback (line 59).

In spite of the learners' increasing control over the tasks, they are not yet able to work on their own. However, the teacher's mere prompting often gets the learners to produce an appropriate response, as illustrated with Example 19:

Example 19. Episode 14. Lesson 9. T=Teacher, LF2, LF4=Learner

24	T	mm en [(.)] eli tapasin (.) pystyin tapaamaan en voinut tavata ne oli käänteisiä	EXP
25	T	kuinkas tulis imperfektissä	ELIC
26	T	Johanna	NOM
27	LF2	[(xx)]	
28	LF4	eeh emmä tiedä (.) mä en oo osannu sitä	
29	T	mm (.) ihan oikein varmaan	PRO
30	LF4	eeh I wasn't able to meet her yesterday	
31	T	kyllä ↑ (.) her tai him (.) kumpi tahansa	ACC<EXP>

In Example 19, the teacher and the learners work on the past tense of the structure *to be able to*. Because the negative target sentence is difficult for the learners, the teacher explains it by comparing it with the affirmative one (line 24). Yet, the teacher's first elicitation of the answer (line 25) does not trigger any appropriate responses from LF4. Instead, the learner's turn indicates that she is very uncertain of her ability to work on the task given (line 28). The teacher, however, continues to prompt LF4 to come up with something (line 29). She seems to want to encourage LF4 to trust on the correctness of her answer. As a result, LF4 picks up the teacher's prompting and provides the correct answer (line 30). In other words, with the help of the teacher LF4 is able to show better performance. In the end the teacher still refers to grammar by giving an alternative to the pronoun *her* (line 31).

The biggest obstacle for the learners to produce appropriate responses at the third level of scaffolded learning is often their own uncertainty to take control over the tasks given. Therefore, the teacher's prompting and her

encouragement both after the learners' partial answers as well as after the final answer are effective means of scaffolded assistance, as in Example 20:

Example 20. Episode 14. Lesson 9. T=Teacher, LF1, LF2=Learners

282	T	entäpä kymmenen [saatko ajaa autoa ensi kesänä]	ELIC
283	LF2	[(xx)]	
284	T	onko Veeralla	PRO<NOM>
285	LF1	ai mikä	
286	T	saatko ajaa	ELIC<REP>
287	LF1	öö (.) öö (.) >emmä tiää< tuleeks siihen joku will vai	
288	T	kyllä ↑	ACC <PRO>
289	LF1	be allowed to	
290	T	mm ↑	PRO
291	LF1	tota: eeh to: drive a car next summer	
292	T	hyvä (.) hienoo ↑ (...)	EVAL<POS>

In Example 20, taken from the same Episode 14 as Examples 18 and 19, the teacher and the learners go through exercises that deal with the structure *to be allowed to*. The teacher tries to elicit a response from the learner first by reading the target sentence in L1 and then by repeating the verb form (lines 282 and 286). LF1 is, however, still reliant on the help supplied by the teacher, and she cannot benefit from the teacher's repetition of the target structure. Her use of the hesitation *öö* and pauses (line 287) indicate that she is very uncertain of her ability to complete the task. In addition, her words *emmä tiää* (I do not know) (line 287) that could be interpreted as *private speech* are further indications of her inability to work by herself. She also searches for the teacher's help herself by asking about the form of the correct auxiliary verb (line 287). However, the learner's hesitations and use of private speech could also be interpreted as a sign of increased self-control (see Section 3.1.3). The teacher seems to notice this and prompts her with a rising intonation to go on with the task by accepting her option for the verb (line 288). What is also significant in the example is that the teacher continues to prompt LF1 after her partial answer (line 290). By prompting the teacher invites LF1 to complete the whole target structure. Furthermore, in this way the teacher and LF1 engage in effective dialogic activity (see Section 3.3.2). As a result, after further hesitations LF1 is able to provide the rest of the correct answer (line 291). At the end of the exchange, the teacher also encourages the learner by giving her

strong positive feedback (line 292). The teacher's words *hyvä hienoo* (good fine) could be interpreted as a reward to LF1 for her active participation in the scaffolding process (line 292).

In sum, at the third level of scaffolded assistance the learners show better performance in their production of new target structures. The examples above clearly indicate that there is reduction of other assistance, with reciprocal increase of the learners' responsibility and self-control. Nevertheless, the learners cannot yet work on the tasks given on their own, but the scaffolded help from the teacher is necessary for them to complete the target sentences. In contrast to the previous levels, the teacher's implicit help that does not go beyond identifying the nature of the problem is, however, enough to help the learners to produce appropriate responses. The teacher in the present data provides the learners with this minimal help by using repetition, implicit clues, emphasis and pauses. In addition, because the learners at the third level of scaffolded learning are often uncertain of their own knowledge of the tasks given, the teacher prompts and encourages them to continue to work on the tasks. Most significantly, at the third level of scaffolded help the teacher provides prompts and encouragement both after the learners' partial and final answers to reduce their uncertainty and to reassure that they are participating correctly. The teacher in the present data also provides the learners with positive feedback to encourage them to trust their abilities to work on the tasks on their own. The teacher's positive feedback is also used as a reward for the learners' active participation. In contrast to the first level of scaffolded help, turn taking at the third level is fairly even between the teacher and the learners.

6.2.4 The fourth level of scaffolded assistance

At the fourth level of scaffolded help, the problem-solving activity shifts from the intermental to the intramental plane. In other words, this final level is characterised by the transition from other-regulation to self-regulation (see Section 3.1.3). As Tharp and Gallimore (1993:36-8) put it, the guided assistance provided by an expert which helps a novice to complete a task given, now shifts to the intramental plane.

Moreover, at the fourth level of scaffolded learning an expert and a novice have almost symmetric definitions of task situations, and a novice can carry out a task given without any strategic help from an expert. Control is passed from an expert to a novice, and through self-regulation a novice becomes more of an initiator in a collaborative activity. In other words, he or she can regulate the activity him or herself. In addition, a novice is now able to make use of the source of help that is triggered by the mere presence of the more capable other. Aljaafreh (1992) defines this source of assistance as the *social frame*. However, as Tharp and Gallimore (1993:37) point out, the control function remains in the form of overt verbalisation. As was mentioned above, at the third level of scaffolded help a novice starts to mimic an expert's other-regulating speech in order to become more self-regulated. As a novice progresses further in the ZPD, this use of *private speech* increases at the fourth level (see Section 3.1.3). Vygotsky (1979:18) argues that other-regulating speech by an expert will finally be internalised by a novice and egocentric speech goes "underground" as *inner speech*. The fourth level of scaffolded help is characterised by this development of inner speech.

As was mentioned above, the learners at the fourth level of scaffolded learning often regulate the activity themselves through the use of *private speech*. Besides, the learners begin to assume greater responsibility for the learning process and their dependence on other-assistance begins to decline. Therefore, the teacher often refuses to provide any verbal assistance, but gives them only time to take over the task given, as in Example 21:

Example 21. Episode 8. Lesson 4. T=Teacher, LF3=Learner

36	T	entäpä neljäs (.) tää mis mies ja nainen	ELIC
37	T	>aha näin hyvin näkyy<	MS
38	T	onks Sari päässy jo (.) neljänteen kuvaa	PRO<NOM>
39	LF3	eeh (.) joo (.) joo eeh (.) a man (.) talks (.) angrily	
40		(..)	
41	LF3	<and a girl talks> kindly	
42		(..)	
43	T	kyllä (.) ystävällisesti ↑ (.)	ACC

In Example 21, the teacher and the learners practise the use of adverbs. At the beginning of the example, the teacher prompts LF3 to produce an appropriate response by only mentioning the number of the target sentence and the

learner's name (lines 36 and 38). LF3 is immediately able to make use of the teacher's first prompting, and she begins to produce a response (line 39). Besides, she relies on herself using the hesitation *eeh* and *private speech* to take control over the task. With this help of her self-regulating speech LF3 is able to arrive at the correct answer of the first part of the sentence (line 39). It seems that the teacher notices the learner's increasing self-control over the task given, and, thus, she simply provides LF3 time to solve the problem herself (line 40). In other words, the teacher seems to make an effort not to provide LF3 any assistance. The learner's performance at the fourth level of scaffolded learning is primarily self-assisted, and, thus, the long pause provided by the teacher is enough to get LF3 to produce the rest of the target structure.

At the fourth level of scaffolded learning the learners manifest good control over the tasks given. The teacher's reading aloud of the target sentences is often enough to trigger responsive action from them. In addition, the learners show better performance in the whole scaffolded process, which the teacher further encourages by providing different options, as illustrated with Example 22:

Example 22. Episode 7. Lesson 4. T=Teacher, LM3, LM7=Learners

42	T	entäpä helposti ↑ (.)	ELIC
43	T	Ville ↑	NOM
44	LM3	easily	
45	T	mm ↑	ACC
46	T	miten kirjoitat ↑	ELIC
47	LM3	easily	
48	T	hyvä ↑ (.)	EVAL<POS>
49	T	eli yy muuttuuki siellä iiksi (.)	EXP
50	T	<entäpä kamalasti> (.)	ELIC
51	T	<miten Jonne tekis>	PRO<NOM>
52	LM7	mm (.) mul on vähän eri sanoil mutta (.) <terribly>	
53	T	mm ↑ terribly horribly (.)	ACC
54	T	eli ee häviää sieltä tulee yy sen tilalle (.)	EXP

In Example 22, the teacher and the learners practise the formation of adverbs. Both learners have good control over the tasks given, and, thus, the teacher's first elicitation of the answers from the learners (lines 42-3 and 50-1) result in the learners' appropriate responses (lines 44 and 52). After accepting the learner's correct answer *easily* (line 45) the teacher further checks the

correctness of the learner's answer by asking a question about the spelling of the adverb (line 46). On this occasion she ignores the learner's incorrect pronunciation and concentrates on the form of the adverb. LM3 gives a further correct answer (line 47), which is rewarded by the teacher's positive evaluation (line 48). With her positive evaluation and her explanation about the spelling (lines 48-9) the teacher also seems to want to encourage the learner's correct and active participation in the learning process. Furthermore, after accepting the correct adverb *terribly* provided by LM7 the teacher seems to want to encourage the learner's increasing ability to work by himself by repeating his correct answer and giving an option for it (line 53). In addition, she explains the correct spelling of the adverb (line 54).

At the fourth level of scaffolded learning, the *social frame* as a subtle source of help is often enough to trigger appropriate responses from the learners. In other words, the learners at the last level of scaffolded help are more self-reliant and capable of taking responsibility for the tasks given than at the previous levels. Interestingly, however, the learners are not able to recognise their errors when working on the tasks given alone at home, but the social frame is necessary for them to produce correct structures. All the teacher often has to do is to mention the learners' names to elicit correct answers from them, as in Example 23:

Example 23. Episode 3. Lesson 2. T=Teacher, LF2, LF6, LM1, LM2, LM3, LM4, LM8=Learners

22	T	Kaisa next one please	ELIC<NOM>
23	LF2	mm <I: am (.) I bought all the food fo:r our tea>	
24	T	mm [(.)]	ACC
25	T	Miia ↑	NOM
26	LF2	[(xx)]	
27	LF6	eeh I've done all the shopping	
28	T	Antti	NOM
29	LM1	and <i>run</i> without shopping (.) run	
30	T	mm (.)	ACC
31	T	and Ville ↑	NOM
32	LM3	eeh (.) aa and brought home the children with me	
33	T	hyvä (.)	EVAL<POS>
34	T	mistä aikamuodosta on kyse- kysymys (..)	ELIC
35	T	Panu	NOM
36	LM8	perfekti=	
37	T	=hyvä. (.)	EVAL<POS>
38	T	Mikko ↑ (.) next one please=	ELIC<NOM>
39	LM2	=I have forgiven my dad	

40	T	mm	ACC
41	T	and Sami ↑	NOM
42	LM4	mm (.) and then drive (.) eikun driven him mad	
43	T	mm driven [(.)] mm	ACC
44	LM4	[no driven]	

In Example 23, the teacher and the learners go through exercises that deal with different tenses of verbs. After the teacher directs the learner's attention to the task given (line 22), LF2 is immediately able to produce an appropriate response (line 23). In addition, LF2 is able to correct her own mistake by changing the incorrect verb form to the correct one without any verbal help from the teacher (line 23). In other words, the *social frame*, that is, the mere presence of the teacher, is enough to help her to come up with the correct target structure. After accepting the previous answer the teacher selects the next speaker by mentioning her name (line 25). LF6, like LF2, has control over the task given, and, thus, she is immediately able to provide the correct sentence (line 27). Without any further comments the teacher selects the next speaker, (line 28) who also provides an appropriate response (line 29). LM1 first pronounces the verb *run* incorrectly, but seems to suspect that something is wrong with his pronunciation. Thus, after a pause he recognises the error and pronounces the verb correctly (line 29). It could be interpreted that LM1, like LF2, is able to make use of the social frame in the situation. The teacher continues to go through the target sentences and mentions the next speaker's name, who after the hesitation *eeh* answers the teacher correctly (line 32). Furthermore, the teacher seems to notice the learner's slight hesitation (line 32), and, thus, she wants to encourage LM3 and to reward him for his correct performance with her word *hyvä* (good) (line 33).

Moreover, it is interesting that in the middle of going through the target sentences the teacher asks about the tense of the verbs (line 34). It can be claimed that because the learners are on their way of assuming full self-control and independent functioning, the teacher wants to make sure that they are also able to combine theory and practise. After receiving the answer (line 36) the teacher mentions the next speaker's name (line 38), who also immediately provides the correct response (line 39). In his turn LM4 is again able to make use of the mere presence of the more capable teacher, and, thus, after a pause he is able to correct the error in his own answer (line 42). In the end the teacher

accepts and repeats the correct verb (line 43). The learner's repetition of the correct verb (line 44) further acknowledges the teacher's role in providing scaffolding for the production of the target structures.

As was mentioned above, at the fourth level of scaffolded learning the learners are not any longer reliant on the help supplied by the teacher, but they can work on the tasks given by themselves. When the teacher notices the learners' ability to work alone, she often provides confirmation checks to make sure that they can justify their actions, as in Example 24:

Example 24. Episode 2. Lesson 1. T=Teacher, LM2=Learner

18	T	kakkonen Mikolle	ELIC<NOM>
19	LM2	my friend Doris Pike usually comes around for coffee doesn't she	
20	T	hyvä ↑	EVAL<POS>
21	T	miks laitoit muuten doesn't	ELIC
22		(.)	
23	LM2	eehm (.) siin on ässä siin muodos	
24	T	nii ku on hänestä kyse	ACC<EXP>

In Example 24, the teacher and the learners practise tag-questions. LM2 produces the whole target sentence correctly (line 19) right after the teacher directs his attention to the next task (line 18). The teacher corroborates the success of the learner's performance in the scaffolding process by giving him positive evaluation (line 20). In addition, in order to help LM2 to understand the grammatical background of the task given the teacher asks him the reason for using the auxiliary verb *doesn't* (line 21). She also seems to want to make sure that LM2 understands the use of tag-questions. After the learner's correct answer (line 23) the teacher states her acceptance and gives him a further explanation for the use of the auxiliary verb (line 24).

The dialogue between the teacher and the learners at the fourth level of scaffolded learning indicates an important shift of control from the teacher to the learners. The learners need only a minimal degree of help to complete the tasks given. In addition, the teacher often makes use of the learners' good knowledge of the target structures and builds her further explanations of the grammar on the learners' previous answers, as illustrated with Example 25:

Example 25. Episode 8. Lesson 4. T=Teacher, LF1, LF2, LM9, LM10=Learners

2	T	kuinkas tulee ensimmäinen kuva ↑ (.)	ELIC
3	T	Lassi (.)	NOM
4	T	mitä laitetaan ensimmäiseen kuvaan	PRO
5	LF1	emmä tiedä (.) joku purra	
6	LM9	(xx)	
7	LM10	eeh (.) young people walk quickly	
8	T	mm ↑	PRO
9	LM10	ja sitte (.) old people walk slowly	
10	T	mm (.) esimerkiksi ↑	ACC
11	T	tää on nyt monikko ↑ (.) mm tää on monikko tää käy nyt näin (.)	EXP
12	T	<mutta> jos teillä ois ollut yksikkö ↑ ni mitä pitää olla siellä ↑ (.)	ELIC
13	T	Kaisa ↑	NOM
14	LF2	ässä	
15	T	joo ↑ (.)	ACC
16	T	jos teillä olis että a young man (.) ja sitte pitää olla walks: (.) ja täällä pitää muistaa olla artikkeli (.) ja sama (.) pätee vanhaa mieheä (.)	EXP
17	T	entäpä kakkonen	ELIC
18	T	Kimmo ↑	NOM
19	LM9	eeh (.) Florence sings (.) terribly [but Maria sings beautifully]	
20	T	[mm ↑ (.)] mm (.) hyvä (.)	EVAL<POS>
21	T	ja taas ässät paikallaa (.) ja huomaa beautifully sanas kaks allää ↑	EXP

In Example 25, the teacher and the learners go through sentences that include adverbs. At the beginning of the example, the teacher directs the learners' attention to the first task. Because nobody volunteers to answer she selects the next speaker and prompts him to read aloud the sentence (lines 3-4). After the hesitation *eeh* LM10 produces the correct answer for the first part of the sentence (line 7), and the teacher prompts him further to complete the whole sentence (line 8). While being almost self-regulated within the task given LM10 is able to pick up this prompting and to produce the rest of the target sentence without any further help from the teacher (line 9). After accepting the correct verb the teacher explains the use of the verb further in plural (line 11) and asks the learners about its use in singular (line 12). In other words, the teacher seems to want to help the learners to put the target structures into use also in other possible contexts. In order to make the structure even more clear to the learners the teacher gives them an example of the use of the verb in singular (line 16). At the same time she foregrounds the correct use of articles in singular. With her explanations and examples the teacher seems to want to

check whether the learners are able to transfer the knowledge gained from previous lessons to the new contexts. After the hesitation *eeh* and a pause LM9 is also able to take control over the next task and to produce the correct sentence (line 19). The teacher evaluates his answer positively with her word *hyvä* (good) (line 20), and in the end she still reminds the learners of the correct spelling (line 21). It is also interesting that in the whole example the teacher never corrects the learners' incorrect pronunciations. It could be claimed that she wants to concentrate only on the grammar and to encourage the learners to use these structures without any negative evaluation.

In sum, at the fourth level of scaffolded learning the learners' responsibility and self-reliance markedly increase, compared with the previous levels. At the same time the learners' dependence on the teacher's assistance declines. In other words, the learners begin to regulate the activity themselves through *private speech*, with the help of which they become gradually fully self-regulated. Therefore, at the fourth level of scaffolded learning the teacher's minimal help, such as the reading aloud of the target sentence, is enough to trigger appropriate responses from the learners. Besides, the teacher often refuses to provide any verbal assistance in order to encourage the learners to work independently on the tasks given, and, thus, she often uses pauses as a means of scaffolded assistance. Most significantly, at the fourth level of scaffolded learning the learners are able to make use of the *social frame*, that is, the mere presence of the teacher in order to complete the new target structures. However, although the learners are on their way to self-regulation and independent functioning, they are not yet able to recognise their own errors without this presence of the more capable other. Besides, the teacher in the present data often asks the learners to justify their answers to make sure that they can combine theory and practise. With her confirmation checks she also wants to teach them to use the new structures in different contexts. In addition, the teacher in the present data provides the learners with positive evaluation to encourage their correct and active participation in the scaffolding process. As expected, although the teacher always has the final control over the lessons, at the final level of scaffolded assistance her role is also to support the learners' independent working.

6.3 Variation in the means of scaffolding in data

As was mentioned in Chapter 5, the focus of the present study was on the scaffolded assistance provided by a foreign language teacher in whole-class interactions. In addition to describing different scaffolding strategies used by a teacher at different levels of the ZPD (see Section 6.2), the aim of the present study was to examine the variation in the nature and amount of scaffolded help found in the episodes. This variation is necessary in enabling learners to perform at a higher level than their actual level of performance. Besides, scaffolding is determined as graduated help (see Section 3.3), and it is supposed to ensure, as Wood and Wood (1996:5) remark, that the learner is neither left to struggle alone with too much complexity, nor, conversely, given too little scope for involvement and initiative in a task activity. Consequently, the teacher's help should be geared at the appropriate level with the appropriate amount of assistance.

In this section an answer is sought to research question 3. In other words, the variation in the nature and amount of scaffolding in the episodes is discussed. More specifically, different characteristics in the nature of the teacher's scaffolding procedures are outlined and differences in the amount of scaffolding used by the teacher in the present data are examined.

6.3.1 Variation in the nature of scaffolding

Firstly, the present data clearly show the gradual nature of scaffolding. As was mentioned in Section 3.3.2, effective collaboration is gradual, which is important for the learners' development. Example 26, which is an example of the second level of scaffolded assistance (see Example 14), illustrates how the teacher in the present study moves from implicit to explicit assistance depending on the learners' needs:

Example 26. Episode 14. Lesson 9. T=Teacher, LM3=Learner

65	T	kuinka Ville tekis futuurin ↑	ELIC <NOM>
66		(.)	
67	LM3	eeh (.) I hope (.) eeh eiku=	

68	T	=joo ↑ hyvä (.)	EVAL<POS>
69	T	I hope <that you:>	PRO <CLUE>
70	LM3	you will (.) come	
71	T	mm (.) you will (.) on iha oikein ↑ (.) mut sitte pitää lisätä se olla verbi ↑	EVAL <POS/ NEG><CLUE>
72	LM3	you will-	
73	T	mikäs on olla verbin perus[muoto]	ELIC<CLUE>
74	LM3	[be]	
75	T	be ↑	ACC
76	T	ja sitte ↑=	PRO
77	LM3	=able to (.) come	
78	T	elokuviin	PRO
79	LM3	to the movies	
80	T	ensi lauantaina .	PRO
81		(.)	
82	LM3	se on (.) ne:	
83	T	next:=	PRO<CLUE>
84	LM3	=next (.) >Saturday<	
85	T	kyllä ↑ (.)	ACC

In Example 26, the gradual nature of scaffolding becomes evident. The teacher and the learners are practising the structure *to be able to*, and the teacher tries to get LM3 to produce the sentence *I hope that you will be able to come to the movies next Saturday*. At the beginning of the example, the teacher simply selects the next speaker and asks him to produce the target sentence in the **future** tense (line 65). However, it appears that the teacher's first elicitation of an appropriate response is insufficient for LM3 to come up with an answer. After a short pause (line 66) he can only provide the beginning of the sentence followed by the hesitation *eeh* (line 67). The learner's hesitation and his inability to provide the correct answer seems to trigger the teacher to move to a more explicit level in her scaffolding, and, thus, she prompts LM3 and gives him a clue for the rest of the target sentence (line 69). LM3 seems to be familiar with the future tense, but he is still unable to add the structure *be able to* to his answer (line 70). Therefore, the teacher becomes slightly more explicit in her scaffolding by giving him a clue about the verb *be* (line 71). Since the learner still leaves his sentence unfinished (line 72), the teacher provides a still more explicit clue and tries to elicit the infinitive form of the verb *be* from him (line 73). As a result, LM3 responds with the correct form of the verb (line 74) and the teacher prompts him further to produce the whole structure *be able to* (line 76). After the completion of the verb form (line 77) the teacher prompts LM3 further step by step to finish the whole sentence on his own (lines 78, 80

and 83). In other words, in Example 24 the teacher makes her assistance more and more explicit by giving the learner specific help in those circumstances where he clearly faces difficulties. Her help is gradual, as well as contingent, that is, responsive to the learner's level of performance (see Section 3.3.2).

Secondly, in the present data there are several episodes where scaffolded assistance accentuates its motivational nature. As Wood et al. (1976) remark, direction maintenance, that is, keeping the learners motivated and in pursuit of the goal of the activity, is one to the main functions of scaffolded help (see Section 3.3.1). The teacher in the present data also often adjusts her scaffolding to keep her learners interested in the task and to help them come up with correct answers with her motivating assistance. Furthermore, the teacher is often persistent in her scaffolding when she encourages and motivates the learners to take more responsibility for the task, as in Example 27:

Example 27. Episode 16. Lesson 11. T=Teacher, LF2, LF5, LM6, LM8, LM=Learners

287	T	täytyykö minun nukkua nyt	ELIC<REP>
288	LM8	eeh emmä tiää	
289	LF2	eiku do	
290	LM	enkun tunnit	
291	LM6	ei enkun tunnilla vai [olla pois]	
292	LF5	[doesn't] (.) do	
293	T	Heidi	NOM<TRANS>
294	LF5	>en tiää<	
295	LF2	* Heidi *	
296	LF5	en tiää	
297	T	sano vaa se oli ihan [oikein]	PRO
298	LF5	[do I] have to sleep now	
299	T	mm (.)	ACC

In Example 27, the teacher and the learners practise the structure *to have to*. At the beginning of the episode, the teacher tries to elicit the correct answer from the learners by only repeating the sentence in Finnish (line 287), but LM8 answers *eeh emmä tiää* (I do not know) (line 288). The teacher, however, ignores the learner's statement and lets the learners think about the target sentence for a while. At the same time the learners seem to have lost interest in the task and they talk about other things than English grammar (lines 289-291). After the learners' off-task exchanges LF5 still tries to produce the target sentence by herself (line 292) and after noticing this the teacher asks her to

answer the question (line 293). However, LF5 simply utters *en tiitä* (I do not know) with a fast pace of speech (line 294). Though the learner's peer also prompts LF5 to answer (line 295), she repeats the statement *en tiitä* (I do not know) (line 296). After the learner's repetition of not knowing the answer the teacher prompts and encourages her by positively evaluating the learner's first effort (line 297). This positive evaluation motivates LF5 to give another try to attain self-regulation in the target structure, and, as a result, she produces the correct sentence without any mistakes (line 298). In other words, the teacher's motivating scaffolding helps the teacher and the learner to co-operate and to achieve mutual understanding. Furthermore, it could be claimed that it helps the learners to become self-regulated in the task given.

As was mentioned above, the teacher's persistence in her scaffolded help keeps the learners in pursuit of the task's goal and rebuilds the learners' motivation, even though the learners try to escape responding by indicating ignorance. Example 28, which represents the third level of scaffolded learning (see Example 15), further illustrates the motivational nature of scaffolding:

Example 28. Episode 11. Lesson 8. T=Teacher, LF1, LF3=Learners

79	T	entäs sitte (.) <kuinkas Sari sanois että> (.)	PRO<NOM>
80	T	sinulla on ollut <lupa ostaa> >kirjoja<	ELIC
81	LF3	>emmä tiitä<	
82	T	on ollut lupa (.)	ELIC<REP>
83	T	käytetään perfektiä	CLUE
84	LF1	hä	
85		(.)	
86	LF3	eeh (.) oisko jotain että you have been (.) allowed to (.) mikä se oli	
87	T	ostaa kirjoja	PRO
88	LF3	buy books	
89	T	mm (.)	ACC

In Example 28, the teacher and the learners practise the structure *to be allowed to* and the target sentence is *you have been allowed to buy books*. At the beginning of the episode, the teacher selects LF3 and tries to elicit the correct answer from her by repeating the sentence in Finnish (lines 79-80). However, like the learner in the previous example, LF3 immediately replies *emmä tiitä* (I do not know) (line 81). The teacher ignores this statement and continues her scaffolded assistance. In other words, she repeats the verb structure in Finnish (line 82) and gives a further clue for the target tense (line 83). After the

teacher's second elicitation of a response another learner also indicates that she does not understand the task by asking *hä* (what) (line 84). Though the learners do not come up with an appropriate response, the teacher does not produce the correct answer herself but gives them more time to think about the target structure (line 85). After a short pause (line 85), then, LF3 produces the correct form of the verb (line 86). Besides, she finishes the whole sentence (line 88) with only a little more help from the teacher (line 87), and, thus, it could be claimed that the teacher's scaffolding is in a crucial role as a motivating element of help. If, say, the teacher had accepted the learner's indication of her inability of producing the sentence and provided the correct answer herself, the learner might have totally lost her interest in the task. Besides, in that case the learner might have got the impression she cannot work at such a level of performance as she does with motivating scaffolding provided by the teacher.

Finally, in the current data there are several episodes that illustrate shared scaffolding in the classroom. Though many theories of scaffolding are based on examining one-to-one tutorials between one expert and one novice (see Chapter 4), this optimal situation of one-to-one tutoring is rarely possible in a present-day L2 classroom. Instead, teacher-fronted tutoring in a L2 classroom involves always more than one novice, in some cases even up to forty novices, working with an expert. Thus, in order to enable shared definitions of the task situations to be created by several participants the teacher is required to accommodate her scaffolding not just with one but with a number of individuals, who are all situated at their individual levels of performance. The teacher in the present data also often directs her scaffolded assistance not just to one learner, but to all the learners in the class, as illustrated with Example 29, in which the learners are at the first level of scaffolded learning (see Example 6):

Example 29. Episode 9. Lesson 6. T=Teacher, LF1, LF2, LF5=Learners

45	T	<sitten> neljäs kohta eikö hänen olisi paras viedä Janice sairaalaan (.)	ELIC
46	T	eikö olisi parasta	ELIC <REP>
47	T	kuinka Veeralla on	PRO<NOM>
48	LF1	no kun ei o mitään	
49		(.)	
50	T	mitä Heidil on	NOM<TRANS> <PRO>

51		(.)	
52	LF5	no ei oikeen mitää	
53	T	ei oikeen mut jotain kuitenkin sano se mitä on	PRO
54	LF5	no en (.) no ku ei siin oo mitää (.) järkevää	
55	LF1	* järkevää *	
56	T	Kaisa	NOM<TRANS>
57	LF2	no en minä tommosii oo voinnu osata	
58	LF1	[* kauhee mil äänel *]	
59	T	[voidaan yhes kattoo] (.)	PRO <MS>

In Example 29, the teacher and the learners practise the structure *had better*. At the beginning of the episode, the teacher tries to elicit the target sentence from the learners by reading it aloud in Finnish (line 45). Because this first elicitation of an answer does not trigger any responsive action from the learners, the teacher repeats the target structure in Finnish (line 46). It seems that with this repetition the teacher wants to foreground the grammatical form of the target structure. Because the learners still do not provide any answer, the teacher selects the next speaker and prompts her to response (line 47). However, LF1 replies *no kun ei o mitään* (I do not have any answer) (line 48), after which the teacher gives the learners time to think about the target sentence (line 49). Because the pause does not help the learner come up with an answer, the teacher decides to transfer the turn to speak to another learner and prompts LF5 to answer (line 50). After the pause (line 51) LF5 also replies *no ei oikeen mitään* (not really anything) (line 52) to the teacher's prompting. Nevertheless, the teacher prompts and encourages her further to give a response (line 53), but the learner still does not produce the target sentence. Instead, she tries to justify her refusal by telling the teacher that *no ku ei siin oo mitää (.) järkevää* (my answer does not make any sense) (line 54). After this the teacher selects yet another speaker (line 56), but LF2 indicates that she too is unable to provide the target structure (line 57). Due to the learners' comments of not being able to provide the target sentence (lines 48, 52, 54 and 57) the teacher seems to decide to make her scaffolding more explicit and to examine the target structure more profoundly together with the whole class (line 59). It is interesting that even though the teacher directs her scaffolded assistance only to one learner, she seems to mean it to be shared with all the participants in the class. In other words, the teacher can at any moment transfer her previous elicitation of an appropriate answer from one learner to another in

the class. Besides, in this way all the participants in the classroom interaction seem to benefit from the teacher's shared scaffolding.

In sum, the teacher provides the learners scaffolded assistance to help them to perform at a higher level than their actual level of performance. Thus, in order to take into account every learner's potential level of performance the teacher in the present study varies the nature of her scaffolded help with regard to the learners' abilities to work on the tasks given. Firstly, in the present data there are several episodes that illustrate the gradual nature of scaffolding. In other words, the teacher helps the learners complete the tasks given by gradually providing more and more explicit assistance in those circumstances where they clearly face difficulties. Secondly, in some episodes in the current data the teacher emphasises the motivational nature of scaffolded help. On these occasions she attempts to prevent the learners from losing their interest in the tasks given by motivating them by various means of scaffolding, such as positive evaluation. Besides, the teacher in the present study often uses persistence as a means of motivational scaffolding. Finally, the data includes episodes of shared scaffolding. In other words, although the teacher directs her scaffolded assistance only to one learner, it is shared by all the learners in the interaction. Thus, shared scaffolding is beneficial for all the participants.

6.3.2 Variation in the amount of scaffolding

As was mentioned in Section 3.3, too much scaffolded assistance might inhibit learning, because then the learners get only few opportunities to come up with the correct answers by themselves. Conversely, too little scaffolded help might leave them to struggle alone with too much complexity. Therefore, effective scaffolded learning involves not only different kinds of scaffolding strategies but also different amounts of those strategies provided by the teacher. Firstly, in the data there are episodes where the teacher provides sufficient amount of scaffolded assistance for the learners, that is, the learners get enough help to arrive at the correct solution to the task given by themselves. In other words, the teacher increases the amount of her assistance in accordance with the

learner's level of performance, as illustrated with Example 30, in which the learner is at the second level of scaffolded learning (see Example 10):

Example 30. Episode 14. Lesson 9. T=Teacher, LM6, LF2=Learners

179	T	minä olen aina saanut katsoa englantilaisia filmejä (.)	ELIC
180	T	perfektissä (.)	CLUE
181	T	Ville	NOM
182		(..)	
183	LM6	tä en tiä	
184		(..)	
185	T	viitonen (..)	ELIC
186	T	mites sanot minä olen ollut	CLUE
187	LM6	I was been	
188	T	mm ei was vaan I:-	EVAL<NEG> <PRO>
189	LM6	had	
190	T	I have been (.)	DIRECT ANS
191	T	kuinka jatkat. (.)	PRO
192	T	sitte se aalla alkava sana	CLUE
193		(..)	
194	LM6	emmä tiä	
195		(.)	
196	T	mikä lukee isolla ylhäällä (.)	CLUE
197	T	biin jälkeen	CLUE
198		(.)	
199	LF2	[[((laugh))]]	
200	LM6	[no allowed] mikä toi on (.) [allowed]	
201	T	[joo ↑] (.)	ACC
202	T	ja katsoa	PRO
203	LM6	watch	
204	T	englantilaisia	PRO
205	LM6	emmä tiä	
206	T	English	DIRECT ANS
207	T	ja elokuvia	PRO
208		(.)	
209	LM6	films (.) movies	
210	T	movies films (.)	ACC

In Example 30, the teacher and the learners practise the structure *to be allowed to* and the target sentence is *I have always been able to watch English films*. At the beginning of the example, the teacher reads the sentence aloud in Finnish (line 179), and right after this she gives the learners a clue for the correct tense (line 180). However, because nobody volunteers to response, the teacher mentions one of the learner's name (line 181). The teacher also gives LM6 time to think about the correct answer (line 182). After a pause the learner's comment *tä en tiä* (what I do not know) (line 183) indicates his inability to work on the task given. The teacher then repeats the number of the task and

provides the learner with more time to come up with an appropriate response (line 185). Because LM6 still does not respond, the teacher gives him a further clue for the tense by repeating the verb in Finnish (line 186). This helps the learner to start working on the target sentence, and, thus, he gives an answer, although an incorrect one (line 187). After noticing that LM6 cannot produce the target sentence the teacher continues her scaffolding and prompts him further to think about the target structure (line 188). Now LM6 is able to produce the correct verb, but still in an incorrect form (line 189). In order to help the learner to overcome the difficult part of the target sentence the teacher gives him the correct form of the verb (line 190). However, after providing the correct answer the teacher prompts LM6 further to produce the rest of the sentence by himself and gives him a clue for the target form of the verb (line 191-2). In other words, she continues to provide scaffolded assistance.

It is interesting in this episode that although the teacher has already used many different scaffolding strategies for the same task, that is, she has given the learner three clues, prompted him twice and given him one direct answer, the teacher still continues to provide scaffolded assistance for LM6. After the learner's statement *emmä tiitä* (I do not know) (line 194) the teacher motivates LM6 to maintain his interest in the task given by giving him two further clues (lines 196-7). The teacher uses these clues to direct the learner's attention to the important elements of the target structure. With the help of these clues LM6 is finally able to produce the correct form of the verb. However, he is still unable to complete the whole target sentence by himself, but the teacher continues her scaffolding and step by step assists him to produce all the elements of the task given (lines 202, 204, 206 and 207). In order to provide LM6 sufficient scaffolding the teacher thus provides him a large amount of scaffolded assistance. In other words, the teacher uses many of the available scaffolding strategies, some of them more than once, to enable the learner to arrive at the correct solution of the task given. In addition, the teacher is sensitive to the amount of her assistance, that is, she increases her help when the learner seems to be in need of more assistance.

As was mentioned above, scaffolding can be defined as sufficient when it helps the learners to arrive at the correct target structures by themselves. In addition to the episodes in which the teacher provides a large amount of

scaffolding, in the present data there are also episodes in which the learners are able to work on the tasks given with only a little help from the teacher. In other words, the teacher's minimal assistance is sufficient for them to produce the target sentences, as in Example 31:

Example 31. Episode 3. Lesson 2. T=Teacher, LF2, LF5, LF6, LM1, LM2, LM3, LM9=Learners

84	T	and then (.) Kimmo ↑	ELIC<NOM>
85		(.)	
86	LM9	eeh and so I have thrown it on	
87	T	that's it	ACC
88	T	a:nd (.) Heidi ↑	NOM
89	LF5	and I have shown it to John	
90	T	mm	ACC
91	T	Kaisa ↑	NOM
92	LF2	and I've sent it (.) it back eeh >it's a mess<	
93	T	mm	ACC
94	T	then a few more to go (.)	MS
95	T	Miia ↑	NOM
96	LF6	I've met uncle Pat	
97	T	and Antti next one please	ELIC<NOM>
98	LM1	and I've let out the cat	
99	T	mm	ACC
100	T	and Ville ↑ (.)	NOM
101	T	and I think-	PRO
102	LM3	and I think everything's alright (.) mm (.) I have sunk in a chair	
103	T	mm chair (.) mm	ACC
104	T	and Mikko the last one=	ELIC<NOM>
105	LM2	=and I have drunk my tea there and now I'm quite alright	
106	T	well done	EVAL<POS>
107	T	any questions ↑ (.)	CHE

In Example 31, the teacher and the learners work on the present perfect forms of irregular verbs. At the beginning of the example, the teacher elicits a response from LM9 by mentioning his name (line 84). After a short pause (line 85) the learner provides the correct answer (line 86) without any further assistance from the teacher. After the learner's correct answer the teacher continues to go through the exercises and selects the next speaker (line 88). LF5 is also able to provide the correct sentence without any additional help from the teacher (line 89). The teacher accepts the answer (line 90) and directs another learner's attention to the exercises by mentioning her name (line 91), who also immediately produces the next target sentence in the correct form (line 92). At the end of the example, the teacher continues only to mention the

learners' names (lines 95, 97, 100, 104) who, in turn, are able to work on the target structures without any further scaffolded help from the teacher. In other words, it could be interpreted that they are close to self-regulation in the tasks given (see Section 3.1.3). Besides, the teacher seems to be conscious of the learners' relatively high level of performance, because she provides only a little amount of scaffolding. She also seems to try not to give too explicit help. Instead, she elicits correct answers from the learners by only mentioning their names and accepting and positively evaluating the correct replies. Only once does she prompt the learner to answer (line 101), provides one metastatement (line 94) and checks once if the learners have any further questions (line 107). It is also interesting that she does not give any clues. However, her scaffolded help is sufficient in accordance with the learners' levels of performance.

Although the amount of scaffolding per one task, as described above, is larger in Example 30 than in Example 31, scaffolded assistance could be defined as sufficient in both cases. Besides, different primary functions of scaffolding strategies are emphasised by the teacher in these examples. Table 9 presents the percentages for all the primary functions of scaffolding used in Examples 30 and 31:

Table 9. The amount of primary functions of scaffolding strategies in Examples 30 and 31

PRIMARY FUNCTION	EXAMPLE 30	EXAMPLE 31
ELIC	2 = 11,1 %	3 = 15,7 %
CLUE	5 = 27,7 %	0 = 0 %
NOM	1 = 5,5 %	7 = 36,8 %
EVAL	1 = 5,5 %	2 = 10,5 %
DIRECT ANS	2 = 11,1 %	0 = 0 %
PRO	5 = 27,7 %	1 = 5,2 %
ACC	2 = 11,1 %	4 = 21,0 %
CHE	0 = 0 %	1 = 5,2 %
MS	0 = 0 %	1 = 5,2 %
TOTAL	18 = 100 %	19 = 100 %

In example 30, which includes only one task given, the teacher uses scaffolding strategies on 18 different occasions, and the strategies used by the teacher have seven different primary functions. The primary functions of these strategies are in most of the cases clues (27,9 %) and prompts (27,7 %). Instead, on only a few occasions do the teacher's scaffolding strategies function as elicitation (11,1), nominations (5,5 %), evaluations (5,5 %) or acceptances (11,1 %). This

could be interpreted to be, above all, due to the nature of the scaffolding situation. In other words, the learner needs much scaffolded assistance from the teacher to work on the task given, and, most importantly, the teacher provides all the help LM6 needs to come up with the correct answer by himself. Thus, sufficient scaffolding in Example 30 includes a large amount of assistance per one task.

In contrast to Example 30, Example 31 consists of seven different tasks given and there are 19 occasions where the teacher uses scaffolding strategies. The primary functions of the scaffolding strategies on most of the occasions in Example 31, unlike in Example 30, are nominations (36,8 %), elicitations (15,7 %) and acceptances (21,0 %). Interestingly, the teacher gives the learners no clues and prompts them only once to give an appropriate answer, which could be claimed to be due to the learners' high level of performance. Most significantly, the teacher's scaffolded assistance is sufficient, though she does not provide one learner with so much scaffolding as in Example 30.

Secondly, in the present data there are episodes where scaffolded assistance provided by the teacher seems not to be sufficient for the learners to work on the target structures by themselves. As was mentioned in Section 3.3, effective scaffolding should be geared at the appropriate level of the learners' performance, and, similarly, the amount of assistance should be in accordance with the learners' need of help. Example 32 illustrates the insufficient amount of the teacher's scaffolding in the current data:

Example 32. Episode 14. Lesson 9. T=Teacher, LF2, LM4=Learners

40	T	kuinkas tulis Sami pluskvamperfektissä	ELIC<NOM>
41	LM3	eeh (.) the <i>doctor</i> : hadn't able to (.) came	
42	T	mm ↑ (.) immediately heti ↑ mm ↑ (.)	EVAL <POS/NEG>
43	T	<hadn't been able to ↑>	DIRECT ANS
44	LF2	hm (.) mikä se oli has häh toikin on nyt sitte had	
45	T	pluskvamperfektissä on [aina hadn't ↑] sen jälkee pitää olla verbi oikeessa muodossa ja sen jälkee <able to come> (.) ihan tavallisesti	EXP

In Example 32, the structure *to be able to* causes problems. At the beginning of the example, the teacher elicits an appropriate answer from the learners by selecting the next speaker and by mentioning the target tense of the verb (line

40). After this LM4 immediately produces a sentence, which, however, is incorrect (line 41). He excludes the adverb *immediately* from the target sentence and provides an incomplete form of the verb. The teacher evaluates the learner's answer and provides him the missing words of the sentence herself (line 42). In other words, the teacher produces the correct answer herself, and, thus, it could be claimed that LM4 does not get an opportunity to try to come up with an answer with the teacher's scaffolded assistance. If, say, the teacher had continued her scaffolding by prompting and giving clues, LM4 might have been able to complete the task given by himself. In other words, he might have been able to work at a higher level than his actual level of performance. However, when another learner indicates her bewilderment in the target structure (line 44), the teacher starts to explain the form of the verb in the past perfect tense (line 45). The teacher seems to notice the difficulty of the task given only after the other learner's question and starts then to provide a small amount of scaffolding in the form of explanation.

As was described in Section 6.3.1, the teacher's scaffolding in the classroom is often shared among all the participants. Although the learners often benefit from this shared scaffolding, this characteristic also seems to have its disadvantages. In the data there are episodes where all the learners do not seem to get a sufficient amount of scaffolding when the teacher's assistance is shared among several learners. This is illustrated with Example 33, where the learners are at the first level of scaffolded learning (see Example 3):

Example 33. Episode 10. Lesson 7. T=Teacher, LF1, LF2=Learners

165	T	mitä erikoista huomaat jos kaikki monikkomuodot menee samallalailla (.) perfektiin verrattuna ↑	ELIC
166	LF2	(xx)	
167	T	mitä erikoista [perfektiin verrattuna ↑] (.)	ELIC <REPH>
168	LF2	[(xx)]	
169	T	Veera	NOM
170	LF1	mitä ↑	
171	T	mitä erikoista perfektiin verrattuna tässä ↑	ELIC <REPH>
172		(.)	
173	LF1	ai nois kahes tollasessa	
174	T	eikä ku tässä (.) tohon edelliseen verrattuna	ELIC <REPH>
175	LF1	no (.) hm (.) no niinku (.) emmä tiiä (.) tai siis=	
176	T	=mm Ville ↑	NOM <TRANS>

In Example 33, the teacher and the learners practise the different tense forms. The teacher directs her first question to the whole class (line 165). Because she gets no response, she repeats her elicitation of an appropriate answer (line 167) and selects the next speaker (line 169). LF1 is not, however, capable of producing the target sentence but asks for further assistance (line 170). The teacher responds to the learner's request by rephrasing her initial question (line 171). After a short pause (line 172) LF1 still asks the teacher to specify the question (line 173). The teacher continues to assist LF1 by rephrasing her question again (174). After this the learner seems to start to think about the task given more carefully. Though LF1 expresses her inability to solve the problem with hesitation forms, such as *no* and *hm* (line 175), she seems to be willing to continue to work on the task given. This is indicated by her words *tai siis* (or that) (line 175). However, the teacher interrupts LF1 and selects the next speaker (line 176). In other words, the amount of scaffolded assistance seems not to be sufficient enough for LF1 to complete the target sentence. It could also be claimed that with further scaffolded help from the teacher LF1 might have been able to produce the correct answer by herself.

In sum, effective scaffolded assistance involves not only different kinds of scaffolding strategies but also different amounts of those strategies. Thus, the teacher in the present study also varies the amount of her scaffolding strategies according to the learners' needs. Firstly, in the present data there are episodes where the teacher's scaffolding is sufficient, that is, it helps the learners to arrive at the correct answer by themselves. More specifically, the teacher increases the amount of her help in accordance with the learners' levels of performance. Thus, the amount of sufficient scaffolding depends on each situation. Secondly, however, scaffolded assistance provided by the teacher in the present data is sometimes insufficient for the learners to come up with the appropriate responses by themselves. In other words, there are episodes where the teacher gives a correct answer herself or selects the next speaker without giving enough time for the learners to think about the tasks given.

7 DISCUSSION AND CONCLUSIONS

The present study aimed at exploring L2 interaction in its naturalistic classroom setting from a Vygotskian perspective. More specifically, the purpose was to examine the possible scaffolded help provided by a L2 teacher in a classroom in a secondary school. Besides, the study focussed on the teacher-fronted whole-class lessons that have not been studied much within the Vygotskian framework. The study addressed the following research questions:

RQ1 Are the Vygotskian ideas, especially the notions of the ZPD and scaffolding, applicable to the study of teacher-fronted L2 (English) interaction in its naturalistic whole-classroom setting in Finland?

RQ2 What kinds of scaffolding strategies can be found in teacher-fronted L2 (English) lessons in a naturalistic whole-classroom setting in a Finnish secondary school?

RQ3 What kind of variation in the nature and amount of scaffolding can be found in 11 different L2 (English) lessons taught by one secondary school teacher?

Firstly, the current study aimed to examine the applicability of the Vygotskian framework to teacher-fronted whole-class interactions in general. Furthermore, building on Vygotskian theory and previous studies on scaffolding, an attempt was made to describe different means of assistance given at the four different levels of scaffolded learning. In order to describe the teacher's scaffolding the primary functions of the teacher's strategies were identified. Finally, the variation in the nature and amount of scaffolding was examined.

Below the methods of the analysis are summarised. In addition, the main results of the study are examined in some detail. Finally, limitations of the study are discussed and topics for future research are suggested.

7.1 Methods of analysis

Firstly, the data of the current study consisted of 11 L2 lessons that were recorded in a Finnish secondary school. For the purposes of the study 16

episodes were chosen, all of which had to do with grammar teaching. The grammar episodes were chosen because there were the most dialogic interaction between the teacher and the learners, which was the focus of the present study, in the whole of 11 lessons. In order to increase the reliability of the transcripts standard transcription symbols were used (see Appendix 1) and the recordings were transcribed by both of the researchers.

Firstly, the Focus-Build-Summarise pattern defined by Jarvis and Robinson (1997) was identified in the episodes analysed. This pattern illuminated the structure of the episodes, and, thus, it facilitated identifying the primary functions of the teacher's scaffolding strategies. The two first sections of the pattern, that is, Focus and Build, were found in the episodes, and they corresponded to those by Jarvis and Robinson (1997). Instead, the Summarise section was often indicated by only the teacher's intention to move to the next task. In addition, the present data consisted of two different kinds of grammar episodes, that is, those concerning new grammar items with only one Focus and those concerning grammar exercises with several Foci. However, the pattern of the present episodes is generally in accordance with that of the study by Jarvis and Robinson. The findings of the present data corroborate previous results that indicate that speakers formulate other participants' turns of speech, and these formulations create alignment between speakers. Besides, the teacher provides learners with scaffolded assistance particularly in the Build section.

Secondly, in order to describe the teacher's scaffolding the primary functions (adapted from Sinclair and Coulthard 1975) of the scaffolding strategies were identified. In other words, the purpose was to depict teacher-fronted whole-class discourse in terms of functions to which language is put. Thus, the primary function of the teacher's every scaffolding strategy was first identified, and then described in more detail within the context of the whole episode, that is, in relation to the functions of the teacher's other scaffolding strategies and to the learners' turns of speech. As was mentioned above, both the teacher's and the learners' turns of speech were considered in the analysis, because the scaffolded learning is always a joint activity. However, in assessing functions there is a tension between the situatedness of the meaning of utterances and any attempt to categorise functions. Therefore, making generalisations is always problematic (see Section 7.5).

Moreover, the four different levels of scaffolded assistance were identified on the basis of the data transcribed. Importantly, the starting point of the present study was the teacher's scaffolded help and not just the description of the levels of the ZPD. However, both the teacher's as well as the learners' contributions in the interactions were taken into account, because scaffolded learning, as Vygotsky (1978) points out, is a joint activity. The description of the levels was based on several different studies, for example, those by Wood et al. (1976), Wood (1980), Aljaafreh (1992), Tharp and Gallimore (1993) and Adair-Hauck and Donato (1994). Besides, the stages of regulation (Wertsch 1979a, 1979b, 1985a) and intersubjectivity (Wertsch 1979b, 1985a) were considered in the analysis. Importantly, the results of several studies were combined, because none of them alone was found to describe the levels of the present episodes accurately enough. For example, Wood et al. (1976) defined six main functions of scaffolding, but in contrast to the present study, they did not distinguish any specific levels of scaffolding. Compared with the four levels of the current study, the stages of scaffolded learning identified by Tharp and Gallimore (1993) include only two stages within the ZPD and two **additional** stages outside it. Aljaafreh (1992) focussed on the effectiveness of **the negative** feedback and developed regulatory scale of his own for the analysis. Although Adair-Hauck and Donato (1994) identified different levels of the ZPD, they focussed on the description of these levels and not so much on the scaffolded assistance provided by the teacher. Besides, both the study by Aljaafreh and that by Adair-Hauck and Donato focussed on tutorials instead of whole-class interactions. Besides, in contrast to the present study all these studies were experiments. In other words, because of different emphasises and methods used in the previous studies none of them was applied alone in analysing the current data, and, thus, it is sometimes difficult to compare their results with those of the present study.

Finally, the reason for combining the Vygotskian framework, the Focus-Build-Summarise pattern, the levels of scaffolded assistance and the primary functions of the teacher's strategies stemmed from the need to describe the teacher's scaffolded assistance in teacher-fronted whole-class L2 lessons. Besides, no empirical studies within the Vygotskian framework have so far been conducted on L2 teacher-fronted whole-class interactions using these

methods as means of analysis. In contrast to the previous studies, the naturalistic nature of the data collected was also emphasised in the study.

7.2 Value of Vygotskian theory for L2 research and its applicability to whole-class teacher-fronted L2 interactions

Although no empirical studies within the Vygotskian framework has so far been conducted on L2 teacher-fronted whole-class lessons using a research design similar to that of the present study, a great number of Vygotskian ideas have been extended to, or incorporated into, research on L2 learning and teaching (see previous studies in Section 4.2). Their work suggest that Vygotskian theory can contribute a great deal to the understanding of the process of L2 learning and teaching. The present study lends support to these insights into the value of Vygotskian theory for L2 research, which according to Aljaafreh (1992) resides mainly in two important themes. Firstly, according to Vygotskian theory the development of mental functions, including language, progresses through social interaction between a novice and a more capable member of the environment. Secondly, Vygotskian theory gives primacy to the process of development in the social interaction rather than to end-products. Essential to Vygotskian theory is also that the development of individual functions involves qualitative rather than quantitative increments. For the purposes of the present study both of these themes were important. Firstly, in the present study the learning process took place through interaction between the teacher and the learners, and secondly, the present study focussed on the process of the changes in the scaffolding process.

Moreover, most of the earlier research on L2 learning was characterised by the practise that took into account only the end-products and viewed the parties to the process in isolation from each other and from the activity setting. In these studies language is viewed as separate from its sociocultural context. However, the process of language learning and teaching, as Aljaafreh (1992) points out, involves internalisation of new structures that were handled together with other participants in interaction. Therefore, an approach, in L2 research, that considers the interactive setting, the contribution of both the teacher and

the learner, as well as the process of learning, as is the case within the Vygotskian approach, has an advantage over many of the earlier approaches. Taking into account the contribution of both participants the present study lends support to this point of view. In other words, the teacher and learners are active participants in an activity that is jointly carried out in a dialogic way.

As was mentioned in Chapter 4, most previous studies on the L2 learning process from a Vygotskian perspective examine one-to-one teaching situations (eg. Aljaafreh 1992, Adair-Hauck and Donato 1994, De Guerrero and Villamil 1994, Villamil and De Guerrero 1996, DiCamilla and Antón 1997, Antón and DiCamilla 1998). As these studies demonstrate, Vygotskian theory, especially the notions of the ZPD and scaffolding, has application in L2 collaborative interaction between dyads. In contrast, teacher-fronted whole-class interaction in L2 lessons has not been so much studied. Furthermore, the results of the present study do not support some of these studies which indicate that scaffolding is impossible, or at least very limited, in teacher-fronted whole-class lessons in schools (Tharp and Gallimore 1991, 1993, Ohta 1995, Bliss et al. 1996 and Hobsbaum et al. 1996). On the contrary, the present study suggests that scaffolded assistance provided by the teacher is indeed possible in teacher-fronted learning situations in a naturalistic whole-classroom setting. Thus, the present study supports the results of the study by Jarvis and Robinson (1997) which indicate that a teacher can perceive the ZPDs of the learners and provide them with scaffolded help also in teacher-fronted L2 classrooms. Thus, the notions of the ZPD and scaffolding seem to have application also in teacher-fronted L2 interactions. More specifically, as was mentioned above, Vygotskian theory is a suitable framework to study collaborative activity in the language classroom, because it is based on the premise that higher cognitive development, including language, originates from social interaction.

7.3 Scaffolded strategies provided by the teacher at the four levels of scaffolded learning

The analysis of scaffolding strategies used by the teacher at the four levels of scaffolded assistance demonstrated that the teacher helped the learners with

different kinds of strategies depending on the levels of the learners' ZPDs. At the first level of scaffolded assistance, when the learners were still object-regulated, or strongly other-regulated, and had no clear definition of the task situation, the teacher tried to create a shared intersubjectivity between the learners and herself and to direct their attention to the tasks given. In order to achieve this the teacher used several kinds of strategies. She, for example, repeated her initial questions, gave the learners explicit clues or prompted them to answer. In addition, the teacher's statements of the activity itself were typical at this level. At the second level of scaffolded assistance, the learners were still other-regulated and the teacher's explicit help, such as repetitions, explicit clues, options or prompts, was needed. The teacher broke down the tasks for the learners to help them to participate in the activity. She also provided positive feedback even for the learners' partially incorrect answers to encourage them to complete the tasks. The third level of scaffolded help was characterised by reduction of other-assistance, with a reciprocal increase in the learners' responsibility for the tasks given. However, scaffolded assistance was still needed, though in the form of implicit rather than explicit help. The teacher also prompted and encouraged the learners both after their partial and final answers to increase their certainty in completing the tasks given. In addition, positive feedback was provided frequently by the teacher. At the fourth level of scaffolded assistance, the learners' responsibility for the tasks given and their self-reliance increased markedly. At the same time their need for the teacher's assistance declined. Therefore, the teacher's minimal help, for example, pauses used as a means of scaffolded help, was enough to help them work by themselves. In other words, the learners were able to make use of the mere *social frame* to complete the new target structures. Although the teacher still had the final control over the lessons, her main role was to support the learners' increasing independence in the tasks given.

Firstly, the findings of the present study lend support to previous research which distinguishes different levels of regulation and intersubjectivity (Wertsch 1979a, 1979b, 1985a). In accordance with the studies describing the scaffolded learning process (eg. Tharp and Gallimore 1993, Adair-Hauck and Donato 1994), the results of the present study indicate that as learners' understanding of the activity changes, their roles at different levels of

scaffolding change moving from object-regulation to self-regulation. At the first level of scaffolded assistance learners needed other-assistance, while at the final level they were closer to self-assistance within the tasks given.

Moreover, in the present study the scaffolded assistance provided by the teacher appeared to be sensitive to the learners' needs. In other words, there seemed to be a tendency for the teacher to adjust her scaffolded strategies to the learners' levels of the ZPDs. For example, at the first level of scaffolded learning the teacher provided the learners with statements of the activity itself and with explicit clues, whereas at the final level the teacher gave them only minimal help, such as the reading aloud the target structures and pauses, which was enough to help the learners to complete the tasks given. These findings lend support to several previous studies on the scaffolding process in one-to-one L2 interactions (eg. Aljaafreh 1992, Donato 1994, Brooks and Donato 1994, De Guerrero and Villamil 1994, Villamil and De Guerrero 1996). Besides, the importance of this responsiveness and sensitivity has been indicated by many studies of mother-child interactions (eg. Rogoff et al. 1984 Wertsch and Hickmann 1987). More importantly, the results of the present study indicate that the teacher can be sensitive to the learners' needs in teacher-fronted whole-class lessons and provide them with scaffolded performance.

Finally, the findings of the present study underscore the importance of a joint social activity in the scaffolding process. In the present study the learners were capable of making use of the teacher's implicit help, and, more importantly, only the *social frame*, to complete the tasks given by themselves. These findings lend support to previous studies on L2 learning process from a Vygotskian perspective (eg. Aljaafreh 1992, Brooks and Donato 1994) that indicate that both an expert and a novice are active participants in the scaffolding process. In this respect, Vygotsky's notion of semiotic mediation serves as a tool of both an expert and a novice for co-constructing meaning during the scaffolding process. In the present study the learners came to share the teacher's definitions of the task situations through collaborative dialogue. Thus, the findings suggest that collaborative dialogue between the teacher and learners is possible also in whole-class interactions.

7.4 Variation in the nature and amount of scaffolding

The findings of the present study showed how the teacher varied both the nature and amount of her scaffolding with regard to the learners' abilities to work on the tasks given. In the analysis three different kinds of scaffolding processes were identified, that is, gradual, motivational and shared scaffolding. In addition, the findings showed that the amount of sufficient scaffolding depended on a learning situation.

The teacher in the present study gradually decreased her scaffolding with regard to the learners' increasing ability to work on the target structures by themselves. She both changed her explicit clues to implicit ones, as was mentioned above, and decreased the total amount of scaffolding. In accordance with the studies describing the scaffolding process (eg. Ellis and Rogoff 1982, Greenfield 1984, Aljaafreh 1992, Ohta 1995) the results suggest that effective scaffolded assistance provided by an expert should be gradual. The teacher seemed to attempt not to give the learners too much direct assistance, but encouraged them gradually to take over more responsibility for the tasks given. She seemed to be aware of the responsive nature of scaffolding, and, thus, she also attempted to provide the learners with a sufficient amount of help. However, in the present data there were also episodes where the teacher gave the correct answer herself or selected the next speaker without giving the learners enough time to come up with the correct answer by themselves. These results lend further support to the study by Wells (1993) which indicates that under time pressure it is difficult for the teacher always to provide the sort and amount of assistance that helps learners solve the tasks given by themselves.

7.5 Limitations

In the course of the present study some problems arose, which might have affected the analysis of the data. Firstly, since the data consisted of transcripts made from recordings, it is important to keep in mind that transcription is never more than a partial representation of speech, because there is no system to transcribe all the special elements of speech. Furthermore, the researcher

always uses his or her intuition when the actions of the interlocutors are interpreted. However, in order to increase the reliability the present transcripts were checked by both of the researchers.

Secondly, one might ask whether the data collected represented L2 interaction in its naturalistic classroom setting. Although the researchers tried to video- and audio-record the lessons as unnoticed as possible, their presence in the classroom was likely to affect the teacher's and the learners' behaviour. For example, after the first lesson the teacher told the researchers that she herself had not acted in her normal way during the lesson. Further, during the first lessons some pupils seemed reluctant to participate in the lesson, although according to the teacher they normally were quite active. They felt uncomfortable in the presence of the researchers and the videocamera. Consequently, the effect of the video and tape recorders being visible cannot be accurately assessed, but the impression was that it was quickly forgotten, and, thus, towards the end no more discontent was observed. Overall, the teacher's and the learners' interactions seemed relaxed.

Thirdly, the present study is thus primarily based on the analysis of the verbal behaviour of the teacher and the learners. For example, intonation and stress were not given detailed systematic attention, though they may have an important role in the scaffolding process. However, intonation and pauses were transcribed and analysed where they seemed to be significant for the scaffolding process. Similarly, video-recordings of the L2 lessons were used as supportive material to facilitate the transcription, whereas nonverbal aspects, such as gestures or movements, were not taken into account.

Fourthly, the number of the videotapes and transcribed lessons was relatively small, and all the episodes analysed were from grammar lessons. A larger number from a longer period of time might have added to the reliability of the study. Furthermore, a greater number of transcripts might have increased variation in the scaffolding strategies. The present study is a case study of one L2 teacher, and its aim was to study scaffolded assistance provided by this particular teacher in teacher-fronted whole-class interactions in a secondary school. Thus, the findings cannot be generalised to all L2 interactions, but they should therefore be seen as tentative rather than as a basis for generating hypotheses for future studies.

Fifthly, for the purposes of the present study only the recordings of the L2 lessons and their transcripts were used, not other types of data, such as the teacher's or the learners' systematic interviews. If the subjects had been systematically interviewed after each lesson, it would have been possible to gather data on their own interpretations of the scaffolded strategies used. Such data would undoubtedly have been important in providing information on the subjects' own explanations of the learning situations. However, because of the fast tempo of the lessons the teacher was not necessarily aware of her own choices for scaffolded strategies. Rather, the choices, which were made in the course of a dynamic interaction, were based on that moment in time, and the teacher was not necessarily able to justify her choices afterwards.

Lastly, the present analysis is affected by the inevitable subjectivity in defining primary functions for the teacher's scaffolded strategies. First, though the functions used in the present analysis were based on those by Sinclair and Coulthard (1975), they were further adjusted for the present data (see Section 5.6). Since the present study focussed on L2 interactions and not on L1 lessons like the study by Sinclair and Coulthard, the functions were used here in a different setting from that of the initial study. For example, teacher-learner interactions were not so long and clear as they were in the initial study, and the learners' ability to use the foreign language also caused limitations for the interactions. Besides, the primary functions always depend on the context, and, thus, in the data there were several episodes where they could have been interpreted in more than a one way, as in Example 34:

Example 34. Episode 1. Lesson 1. T=Teacher, LF1, LM5=Learners

40	T	mitäs keksisitte (..)	PRO
41	T	mikä verbi on can verbi (..)	ELIC
42	LF1	mitä mikä verbi se on	
43	T	millases käytös se on	CLUE
44	T	sil on hienompi nimiki	CLUE
45	T	Jyri	NOM

In Example 34, the teacher asks the learners about the grammatical term for the verb *can*. First she makes an attempt to elicit an appropriate answer from the learners with a direct question (line 41). In the present analysis her next question (line 43) is interpreted to function as a clue, though it could also be

interpreted to be a rephrasing of the initial question. However, with this question the teacher seems to want to help LF1 to work on the task given by emphasising that her question is related with the use of the verb *can*, and, thus, she seems to give her a further clue. In addition, due to the nature of the lessons, that is, lessons in naturalistic classroom settings, the primary functions of the scaffolding strategies cannot be understood without knowing the classroom setting, as in Example 35:

Example 35. Episode 16. Lesson 11. T=Teacher, LF2, LF5, LM5=Learners

61	LF2	missä tuol on neljä	
62	LF5	no sen minkä minä kirjoitin	
63	T	tossa sinisen kaks ruutua vieressä	DIR
64	LF2	joo joo (.) löyty	
65	LM5	(xx)	
66	T	mitä sinun piti tehdä (.)	EVAL<NEG>
67	T	nyt on taas unohtunu joku (.) asia ↑ kysymyksestä ↑ (.)	EVAL<NEG> EXP<CLUE>
68	T	mitäpä puuttuu ↑ (.)	PRO
64	T	mitä sinun piti tehdä [(.)]	CLUE

In Example 35, the teacher and the learners go through exercises that have been written on the board. At the beginning of the example, the participants look for the next exercise. After they have located it the teacher reads it aloud in Finnish (line 66). In the present analysis this is interpreted to function as a negative evaluation, because with this turn of speech the teacher also emphasises that the verb on the board is incorrect. Besides, the teacher's next turn of speech is an example of a strategy that has several functions. In other words, with her words *nyt on taas unohtunu joku (.) asia kysymyksestä* (now something has been forgotten from the question again) (line 67) the teacher continues her negative evaluation, explains and at the same time gives a clue that the learners have forgotten something from the question. Furthermore, with the word *taas* (again) she gives a clue that this grammar point has caused problems before. After a further prompt (line 68) the teacher repeats the sentence in Finnish (line 69). However, in analysis this is interpreted to function as a clue instead of a repetition, because with this turn of speech the teacher seems to want to direct the learners' attention to the verb by emphasising it.

7.6 Suggestions for future research

While the present study attempted to shed light on some issues related to scaffolded assistance in teacher-fronted L2 lessons in a naturalistic whole-classroom setting, it leaves many questions unanswered. The current study was a case study of scaffolded help provided by one L2 teacher in one secondary school, and its findings cannot be generalised to all L2 interactions. Therefore, in future research it would be interesting to study scaffolding strategies provided by other teachers and in other schools, in order to find out what kinds of scaffolding strategies L2 teachers use in general.

The present study focussed on the scaffolding process and the strategies that the teacher used in L2 interactions. It left open questions concerning the effectiveness of scaffolded assistance in teacher-fronted whole-class interactions. Thus, in future a longitudinal study of scaffolding and its benefits for L2 acquisition would be valuable for L2 teachers and learners.

Further research is also needed to examine the differences between scaffolding provided by a teacher at different levels of education. In other words, it would be interesting to study, to what extent scaffolding strategies differ when teachers assist learners of different ability groups. Besides, it would be interesting to know what learners' attitudes towards scaffolding are.

Another issue that requires further study concerns teacher training in Finland. It would be valuable to examine how teacher training could take into account the importance of scaffolded assistance. For example, it would be interesting to work out a teacher-training program that focuses especially on responsive teaching in teacher-fronted whole-classroom settings.

The present study provided information on the scaffolding strategies used by a L2 teacher in teacher-fronted lessons in a naturalistic whole-classroom setting. It is hoped that despite its limitations the study has made a contribution in this area of research. It is also hoped that the present study has raised some new questions on the issue of scaffolding in L2 lessons.

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APPENDICES

Appendix 1: Transcription conventions

[]	overlapping speech
(.) (..)	pause (shorter, longer)
text 1= =text2	latching speech
CAPITALS	loud speech
bold font	emphatic stress
>fast<	fast speech
<slow>	slow speech
.	falling intonation
↑	rising intonation
laughing	speaker laughs as s/he speaks
ex:tensio:n	extension of the sound or syllable
cut off wo -	cut off word or sentence
<u>marked</u>	marked pronunciation
<i>mispronounced</i>	mispronunciation
((laugh))	transcriber's comment
(xx)	incomprehensible word/sentence
eeh/ehm/mm	nonverbal sounds marking hesitation/positive affirmation

Symbols to identify the speaker:

T	teacher
LM1	identified male learner (LM1, LM2 etc)
LF2	identified female learner (LF1, LF2 etc)
LM	unidentified male learner
LF	unidentified female learner
LL	unidentified subgroup of class

(Adopted from Piirainen-Marsh, Nikula, Koskela)

Appendix 2a: Episode 11: New grammar items

Episode 11. Lesson 8. T=Teacher, LM,LF, LL=Learners.		
PATTERN	INTERACTION: Be able to / be allowed to - structures	PRIMARY FUNCTION
FOCUS	1 T sitte näytätte olevan sen verran pitkäl et katotaas (.) toinen asia 2 LL [(xx)]	START <MS>
FOCUS continues	3 T [mikäs] oli se apuverbi saada olla lupa tehdä jotakin ↑ 4 LM2 hei älä nyt ku mä merkitsen tän	ELIC
	5 T nyt pitää (.) kuunnella sitte taas hetki ni osaa ↑ (.)	DIR
FOCUS continues	6 T mikä oli se saada (.) olla lupa tehdä jotain (.)	ELIC <REP>
	7 T mikä verbi (.)	CLUE
	8 T Panu	NOM
	9 LM8 >may<	
	10 T se oli may (.)	ACC
	11 T nyt tutkippa kirjasta sivulta kaksiyksiviisi	DIR
BUILD	12 T millä tavalla (.) se kierretään kaikis muissa aikamuodois paitsi preesensissä 13 LF7 mikä 14 LF1 ((laugh))	ELIC
	15 T kaksiyksiviisi ↑	DIR
	16 LM2 Panu riehuu taas 17 LF1 ((laugh))	
	18 T mm ↑ (.)	PRO
	19 T kuinka kierretään	ELIC <REP>
	20 T Miia	NOM
	21 LF6 be allowed to	
	22 T mm (.)	ACC
	23 T nyt jos mä sanosin (.)	EXP
BUILD	24 T Miia sano et se oli be allowed to 25 LF1 mä nyt en tiä et mis me nyt ollaa oikee (.) ollaaks me näis lauseis viel	ELIC
	26 T puhutaan maystä (.) saada olla lupa tehdä jotain	EXP
	27 LM (xx) (.) kato kirjast 28 LF1 maystä	
BUILD	29 T may verbistä (.) ja se kierrettiin rakenteella be allowed to (.)	EXP <REPH>
BUILD	30 T nyt jos mä sanosin suomeks <että> (.) minä (.) sain (.) tupakoida kotona (.) kotona (.) ↑ ni kuinkas sanosit (.)	ELIC

	31 T <sain tupakoida kotona> [(.)]	ELIC <REP>
	32 LF [nii]	
	33 T Miia	NOM
	34 LF6 I was allowed to (.) smoke at home	
	35 LF [Miial on kivat porukat]	
	36 T [mm (.)]	ACC
BUILD	37 T kerrotko mitä teit [(.) mistä] tiesit et se tulee sillee	ELIC
	38 [*kotona*]	
	39 LM1 (xx)	
	40 LF1 siks ku se on hikari	
	41 LF6 no	
	42 LF1 ai ((laugh))	
	43 T jos sä vertaat tähän näin (.)	DIR <CLUE>
BUILD	44 T mitä sä vaa oot tehny	PRO
	45 LF6 no (.) siihen (.) siin muuttuu vaa se allowed to	
	46 LF1 onnistuiski vaan silleen	
	47 LM1 mä kirjotan (xx)	
	48 T näin tulee (.) minulla oli lupa tehdä jotakin (.)	ACC
	49 T otetaas lisää esimerkkejä ↑ (.) täältä ↑ (.)	DIR <MS>
BUILD	50 T <hän sai> (.) hänellä oli lupa (.) mennä elokuvaan perjantai-iltana ↑(.)	ELIC
	51 T hänellä oli lupa mennä elokuvaan perjantai-iltana ↑	ELIC <REP>
	52 LM1 ike popkii menee ((laugh))	
	53 T Antti yrittää	PRO <NOM>
	54 LF1 ((laugh))	
	55 T hänellä oli lupa [mennä elokuvaan]	ELIC <REP>
	56 LM1 [en mä kuunnellu] do you mitä	
	57 T >hänellä oli lupa mennä elokuvaan< (.)	ELIC <REP>
	58 T yritä=	PRO
	59 LM1 =he was (.) allowed to (.) go (.) >to movie<	
	60 T mm ↑	ACC
	61 T ja perjantai-iltana ↑	PRO
	62 LM1 Friday night	
	63 T mm on Friday night (.) to the movies [(.)]	EVAL <POS/NEG>
	64 LM1 [hei sen mä osasin]	
BUILD	65 T sitte jos mä sanosin että: <meillä on ollut lupa ostaa karkkeja lauantaisin> (.)	ELIC
	66 T meillä on ollut lupa (.)	ELIC <REP>
	67 T kuinkas sanosit (.)	PRO
	68 T Kimmo (.)	NOM

	69 T meillä on ollut lupa	ELIC <REP>
	70 LM9 eeh (.) we have (.) been allowed	
	71 LM1 Jyri	
	72 T ostaa karkkeja	PRO
	73 LM9 [buy candies]	
	74 LM1 [(xx)]	
	75 T mm (.)	ACC
	76 T lauantaisin	PRO
	77 LM9 on: Saturdays:	
	78 T mm ↑ <we have been allowed to> (.)	ACC
	79 T entäs sitte (.) <kuinkas Sari sanois että> (.)	PRO <NOM>
BUILD	80 T sinulla on ollut <lupa ostaa> >kirjoja<	ELIC
	81 LF3 >emmä tiiä<	
	82 T on ollut lupa (.)	ELIC <REP>
	83 T käytetään perfektiä	CLUE
	84 LF1 hä	
	85 (.)	
	86 LF3 eeh (.) oisko jotain että you have been (.) allowed to (.) mikä se oli	
	87 T ostaa kirjoja	PRO
	88 LF3 buy books	
	89 T mm (.)	ACC
	90 T ja sitte jos ois esimerkki Mikko halua vastata selvästi	PRO <NOM>
	91 LM2 yes:	
BUILD	92 T että <hänellä oli ollut (.) lupa (.) leikata (.) nurmikko>	ELIC
	93 LM1 hyi vit- >Mikko<	
	94 LM2 joo	
	95 T ss ss (.)	DIR
	96 T hänellä oli ollut lupa leikata nurmikko ↑	ELIC <REP>
	97 LM2 he have had	
	98 LF1 he (.) had had	
	99 LM2 no aivan sama	
	100 LF1 ihan miten vaa	
	101 T no ↑	PRO
	102 LM2 no varmaan had (.) emmä tiiä	
	103 T he ↑	PRO
	104 (.)	
	105 LM2 had	
	106 T nii (.)	ACC
BUILD	107 T >mikä sitte ↑<	PRO
	108 LM1 [ike popkii meni] ((laugh))	
	109 LM2 [emmä tiiä]	
	110 T mikä tääl on ↑	CLUE
	111 LM2 [been]	

	112 LM1 [((laugh))]	
	113 LF1 mikä se on se ike pop	
	114 T ja sitte .	PRO
	115 LM2 [allowed to]	
	116 LF1 [mikä se on se ike pop]	
	117 T mm	ACC
	118 LM1 eiku sä et nyt oikee snajjaa	
SUMMARISE	119 T eli (.) nää ihan samallailla (.)	CLUE
	120 T nyt (.) kirjota	DIR <MOVE TO NEXT>

Appendix 2b: Episode 14: Grammar exercises

Episode 14. Lesson 9. T=Teacher, LM, LF, LL=Learners.		
PATTERN	INTERACTION: Structures be able to / be allowed to.	PRIMARY FUNCTION
FOCUS	1 T (.) sitten on pitänyt kirjoittaa lauseita englanniksi (.) ja nyt piti olla äärimmäisen huolellinen aikamuodoissa (.)	START
FOCUS	2 T <oletko sinä voinut soittaa Marylle> mikä aikamuoto	ELIC
	3 LF2 imperfekti	
	4 (.)	
BUILD	5 T <oletko voinut soittaa>	ELIC <REP>
	6 T Jonne	NOM
	7 LM7 onkse perfekti	
	8 T on (.)	ACC
BUILD	9 T kuinka laitot	ELIC
	10 LM7 have you been able to call Mary	
	11 T hyvä (..)	EVAL <POS>
FOCUS	12 T entäpä toinen (.) minä en voinut tavata häntä eilen mikä aikamuoto ↑ (.)	ELIC
BUILD	13 T <en voinut tavata häntä eilen ↑> (.)	ELIC <REP>
	14 T miten se olis myönteisenä (..)	CLUE
	15 T Kaisa	NOM
	16 LF2 minä tapasin hänet viime ((mumble))	
	17 T mm (.)	ACC
BUILD	18 T tapasin pystyin tapaamaan (.) mikä aikamuoto se on	ELIC
	19 LF2 preesens (..) imperfekti kai ((whisper))	
	20 T imperfekti (.) hyvä	EVAL <POS>
	21 LF2 ihan sama asia	
BUILD	22 T vähän: [eri lailla vaa]	EXP
	23 LF2 [no eikö oo]	
BUILD	24 T mm en [(.)] eli tapasin (.) pystyin tapaamaan en voinut tavata ne oli käänteisiä	EXP
BUILD	25 T kuinkas tulis imperfektissä	ELIC
	26 T Johanna	NOM
	27 LF2 [(xx)]	
	28 LF4 eeh emmä tiedä (.) mä en oo osannu sitä	
	29 T mm (.) ihan oikein varmaan	PRO
	30 LF4 eeh I wasn't able to meet her yesterday	
	31 T kyllä ↑ (.) her tai him (.) kumpi tahansa	ACC <EXP>
	32 (.)	
	33 LF2 käyks her	
	34 T her (.) käy ↑ (.)	ACC

FOCUS	35 T <lääkäri ei voinut tulla heti> (.) mikäs aikamuoto tämä olis (.)	ELIC
	36 T mitä veikkaatte (.)	PRO
	37 T Miia	NOM
	38 LF6 no onkse pluskvamperfekti	
	39 T on (.) kyllä on (.)	ACC
BUILD	40 T kuinkas tulis Sami pluskvamperfektissä	ELIC <NOM>
	41 LM4 eeh (.) the doctor: hadn't able to (.) came	
	42 T mm 1 (.) immediately heti ↑ mm ↑ (.)	EVAL <POS/NEG>
	43 T < hadn't been able to ↑>	DIRECT ANS
	44 LF2 hm (.) mikä se oli has häh toikin on nyt sitte had	
BUILD	45 T pluskvamperfektissä on [aina hadn't ↑] sen jälkee pitää olla verbi oikeessa muodossa ja sen jälkee <able to come> (.) ihan tavallisesti	EXP
	46 LF2 [onks toi has]	
	47 LF3 käyks right a way	
	48 T right a way käy (.)	
BUILD	49 oliko muita heti sanoja ↑ (.)	CHE
	50 T ei:	
FOCUS	51 T entäpä nelonen äiti on voinut auttaa meitä mikä aikamuoto (.)	ELIC
	52 T Miia	NOM
	53 LF6 onkse perfekti	
	54 T on (.)	ACC
	55 T osaisko Mikko tehdä ↑	PRO <NOM>
	56 LM2 mum have (..) been able to help us	
BUILD	57 T mm ja äitiko on vielä hän yksikön kolmas ni haven paikalle laitetaaki=	EVAL <POS/NEG> <CLUE> <PRO>
	58 LM2 =has	
	59 T has. hyvä ↑ (.)	EVAL <POS>
	60 T vielä kaksi jäljellä	MS
FOCUS	61 T viisi (.) toivon että voit tulla elokuvaan ensi lauantaina mikä aikamuoto ↑ (.)	ELIC
	62 T Sami	NOM
	63 LM4 futuuri	
	64 T se on futuuri (.)	ACC
BUILD	65 T kuinka Ville tekis futuurin ↑	ELIC <NOM>
	66 (.)	
	67 LM3 eeh (.) I hope (.) eeh eiku=	
	68 T =joo ↑ hyvä (.)	EVAL <POS>
	69 T I hope <that you:>	PRO <CLUE>
	70 LM3 you will (.) come	

BUILD	71 T mm (.) you will (.) on iha oikein ↑ (.) mut sitte pitää lisätä se olla verbi ↑	EVAL <POS/NEG> <CLUE>
	72 LM3 you will-	
BUILD	73 T mikäs on olla verbin perus[muoto]	ELIC <CLUE>
	74 LM3 [be]	
	75 T be ↑	ACC
BUILD	76 T ja sitte ↑=	PRO
	77 LM3 =able to (.) come	
BUILD	78 T elokuvaan	PRO
	79 LM3 to the movies	
BUILD	80 T ensi lauantaina .	PRO
	81 (.)	
	82 LM3 se on (.) ne:	
BUILD	83 T next:=	PRO <CLUE>
	84 LM3 =next (.) >Saturday<	
	85 T kyllä 1 (.)	ACC
	86 T huomata viikonpäivät englannissa isolla ↑ (.) iso äs se Saturday ↑	EXP
	87 LF2 eiks tohon käy et I wish	
	88 (.)	
	89 T ai hope ja sen jälkee which	CHE
	90 LF2 eiku wish (.) I wish	
	91 T ai wish ↑ (.) kyllä käy (.) juu (.)	ACC
BUILD	92 T that sanaa ei tarvi välttämättä olla ↑ (.) voi jättää pois ↑ (.)	EXP
FOCUS	93 T oletko voinut saada liput niin aikaisin mikäpä aikamuoto ↑ (.)	ELIC
	94 T mitä Heidi veikkaa (.)	PRO <NOM>
BUILD	95 T <oletko voinut saada>	ELIC <REP>
	96 LF5 onkse perfekti	
	97 T on (.)	ACC
BUILD	98 T <ja kuinka tulis Miia ↑>	PRO <NOM>
	99 LF6 have you been able to get the tickets so early	
	100 T kyllä (.) hyvä ↑	EVAL <POS>
	101 (.)	
	102 LF5 (xx)	
	103 LF2 (xx)	
	104 (.)	
	105 T onko valmis ↑ (.)	CHE
	106 T mm ↑ (.)	ACC
FOCUS	107 T entäs sitte se toinen (.)	MS
FOCUS continues	108 T se oli may verbistä saada olla lupa tehdä jotain (.)	EXP

BUILD	109 T mites se kierrettiin muissa aikamuodoissa	ELIC
	110 LF2 ihan sama	
	111 LM (xx) (.) voi jukra näitä	
	112 T Miia ↑	NOM
	113 LF6 be allowed to	
BUILD	114 T ja mites taas laitetaa be verbin paikalle ↑ (.)	ELIC
	115 T mitä sen kohdalla pitää muistaa tehdä . (.)	CLUE
	116 T Jonne	NOM
	117 (.)	
	118 LM7 no pistää siin aikamuodos mikä se nyt sitte on	
	119 T kyllä ↑ (.)	ACC
	120 T eli samallailla ku äsken (.) elikkä (.)	CLUE
FOCUS	121 T ensimmäinen (.) Ann saa mennä elokuvaan joka lauantai (.)	ELIC
	122 Heidin vuoro	NOM
	123 LF5 Ann may go to the movies in (.) every Saturday	
BUILD	124 T mm ↑ (.) every Saturday (.) ilman mitään prepositiota joka lauantai ↑ (.) tai mayn paikalla (.) jos haluuut ni voit laittaa et is allowed to go (.) jos haluat (.) mut may on oikein (.)	EVAL <POS/NEG> <EXP>
FOCUS	125 T saanko lainata kirjaasi (.)	ELIC
	126 T Kaisa	NOM
	127 LF2 eeh (.) may I lend your book	
BUILD	128 T mm (.) tai may I borrow your book (.)	EVAL <POS/NEG> <EXP>
FOCUS	129 T <en saanut katsoa> mikäpä aikamuoto (.)	ELIC
	130 T mitä Veera veikkais	PRO <NOM>
	131 (.)	
	132 LF1 onkse imperfekti	
	133 T on imperfekti ↑ (.)	ACC
	134 T Kimmo en saanut	ELIC <NOM>
	135 (.)	
	136 LM9 mm	
	137 (.)	
	138 LL ((laugh))	
BUILD	139 T milläs alotetaa millä sanalla ↑=	PRO
	140 LM9 =i	
	141 T ja (.) sitte imperfektissä olla verbi (.)	CLUE
	142 T mm ↑ (.)	PRO
BUILD	143 T mikä on imperfektissä olla verbi (.)	CLUE <REPH>
	144 T <miten sanot minä olin>	CLUE
	145 LM9 I was	

	146 T mm (.)	ACC
BUILD	147 T ja miten jatkat wasin jälkeen 1 (.)	PRO
	148 T I-	PRO <CLUE>
	149 LM9 I wasn't	
	150 T mm ↑	PRO
	151 LM9 be allowed to watch a film	
BUILD	152 T mm ↑ (.) biitä ei vaa tarvita ku meil oli jo se wasn't se oli se olla verbi I wasn't allowed to watch teevee (.)	EVAL <POS/NEG> <EXP>
FOCUS	153 T miksi et saanut katsoa sitä (.)	ELIC
	154 T Lassi (.)	NOM
BUILD	155 T mikäs on miksi=	ELIC <CLUE>
	156 LM10 =why	
	157 T mm ↑ (.)	ACC
BUILD	158 T mikäs on se <olla verbi> mitä käytetään sinän kanssa imperfektissä	ELIC <CLUE>
	159 T ei was vaan-	PRO <CLUE>
	160 LM10 eeh	
	161 (.)	
BUILD	162 T se toinen	CLUE
	163 LM10 were	
	164 T were ↑ (.)	ACC
BUILD	165 T ja sitte se kielteisenä on ↑	PRO
	166 LM10 weren't	
	167 T mm ↑	ACC
BUILD	168 T ja osaatko jatkaa loppuun why weren't ↑-	PRO
	169 (.)	
	170 LM10 eeh get (.) >on teevee<	
BUILD	171 T mm ↑ (.) <nyt> ei tarvita gettiä ku sul oli siellä se (.) piti käyttää sitä al- allow juttua why weren't you (.)	EVAL <NEG> <EXP> <CLUE>
BUILD	172 T kuinka jatkuu ↑	PRO
	173 LM10 eeh allowed to mitä	
	174 (.)	
BUILD	175 T katsoa	PRO
	176 LM10 eiku watched	
	177 T mm hyvä ↑ (.) why weren't you allowed (.)	EVAL <POS>
	178 T muutama jälellä (.)	MS
FOCUS	179 T minä olen aina saanut katsoa englantilaisia filmejä (.)	ELIC
	180 T perfektissä (.)	CLUE
	181 T Ville	NOM
	182 (..)	
	183 LM6 tä en tiiä	
	184 (..)	
BUILD	185 T viitonen (..)	ELIC
	186 T mites sanot minä olen ollut	CLUE

	187 LM6 I was been	
BUILD	188 T mm ei was vaan I: -	EVAL <NEG> <PRO>
	189 LM6 had	
	190 T I have been (.)	DIRECT ANS
BUILD	191 T kuinka jatkat. (.)	PRO
BUILD	192 T sitte se aalla alkava sana	CLUE
	193 (.)	
	194 LM6 emmä tiiä	
	195 (.)	
BUILD	196 T mikä lukee isolla ylhäällä (.)	CLUE
BUILD	197 T biin jälkeen	CLUE
	198 (.)	
	199 LF2 [((laugh))]	
	200 LM6 [no allowed] mikä toi on (.) [allowed]	
	201 T [joo ↑] (.)	ACC
BUILD	202 T ja katsoa	PRO
	203 LM6 watch	
BUILD	204 T englantilaisia	PRO
	205 LM6 emmä tiiä	
	206 T English (.)	DIRECT ANS
BUILD	207 T ja elokuvia	PRO
	208 (.)	
	209 LM6 films (.) movies	
	210 T movies films (.)	ACC
BUILD	211 T ja always sanan paikka kahden verbin välissä (.) I have always (.) muut paikat ei kelpaa	EXP
	212 LF2 missä sit oikee ollaa	
	213 T viitosessa	DIR
	214 LF2 hä (.) no miks siel pitää se always tulla	
	215 LF6 no ku se on [allowed to]	
BUILD	216 T [aina]	EXP
	217 LF5 mä jo kirjoitin tänne	
	218 T Jyri (.)	NOM
FOCUS	219 T saatko polttaa kotona (.) ei en saa	ELIC
	220 (.)	
	221 LM5 oisko että (.) emmä tiiä	
	222 (.)	
BUILD	223 T preesens	CLUE
	224 LM5 ihan sama mikä se on emmä sit tiedä kuitenkaa	
	225 T tiedät (.)	PRO
BUILD	226 T käytät ekaa sanaa ylhäältä esimerkiks	CLUE
	227 LM5 no (.) may you smoke: at home	

BUILD	228 T mm (.) may you smoke at home ↑ tai are you allowed to smoke at home ↑ (.)	ACC <EXP>
BUILD	229 T kuinka sanotaaa ei en saa	ELIC
	230 LM5 että no I may not	
BUILD	231 T mm ↑ no I may not tai: (.) sitten niinku tääl on et are you allowed no I'm not (.) en saa	ACC <EXP>
	232 LF2 no (.) miten ↑	
	233 LM paljo kello on	
	234 LF5 (xx) voi niin kirjottaa (.) mayn't	
	235 LF2 ((laugh))	
	236 LF5 eiku can't	
	237 LF2 (xx)	
	238 T sitte on vielä viis jälellä (.)	MS
FOCUS	239 T isä ei saanut polttaa koskaan kun hän oli nuori (.)	ELIC
	240 T kuinka pistetään Panu	PRO <NOM>
	241 LF5 eiks se käy may you (.) joo (.) >ei mitää< kaikki on ihan selvää	
	242 T may you (.) on siel ylhääl (.) vähän epäselvästi kato sit vois nostaa vähän ylös (.)	DIR
BUILD	243 T kuinkas Panu sanot	PRO <NOM>
	244 LF2 oi (xx)	
	245 LM8 father (.) father was wasn't eeh wasn't able to eiku allowed to (.) smoke ei näit osaa	
	246 T mm ↑ (.)	ACC
BUILD	247 T kotona (..) ei ollukkaa kotona kun hän oli nuori	PRO
	248 LM8 when he was young	
	249 T mm ↑	ACC
	250 LF5 se oli hyvä (xx)	
BUILD	251 T ja wasn't ever voidaan vaihtaa (.) was never (.) <allowed to smoke when he was young> (.) never kun käytetään ni muistatte et ei saa olla toista kielto sanaa ↑ (.) sillo ei saa olla wasn't (.) englannissa ei oo tuplakieltoa (.)	EXP
FOCUS	252 T entäpä sitte (.) Amerikassa saat ajaa autoo (.) kun on (.) <kuusitoista (.) vuotias> (.)	ELIC
	253 T mitäs sanosit Mari	PRO <NOM>
	254 LF7 no	
	255 (..)	
	256 LF2 tuleeks nää siihen kokeesee	
	257 T joo ↑	ACC
	258 LF2 sit täst vissii voi niinku lähtee	
	259 LF1 voi ei mitäköhän tästki taas saa (xx)	

	260 LF2 oon mä saanu (.) mä saan nelosen (xx)	
	261 LF5 no kerta se on ensimmäinen	
	262 LF2 niin on	
BUILD	263 T kuka osais sanoa (.)	PRO
FOCUS continues	264 T Amerikassa saat ajaa autoa (.)	ELIC <REP>
	265 T Mikko	NOM
	266 LM2 in Amerikka you may drive the car at the age of sixteen	
	267 T mm at the age of sixteen on iha oikein hyvä ↑	EVAL <POS>
	268 (.)	
	269 LF5 (xx) may drive (.) a car ja sitte (.) when you are	
	270 LF2 meitsil oli melkein oikein	
	271 LF5 mult puuttu a sielt carista	
FOCUS	272 T sitten Suomessa ↑ (.) et saa ajaa ennen kuin on (.) ennen kuin on kahdeksantoista vuotta (.)	
BUILD	273 T kuka (.) osais (.)	PRO
BUILD	274 T onko Jonnella	PRO <NOM>
	275 (.)	
	276 LM7 <in Finland you may not drive a car until you are eighteen>	
BUILD	277 T [mm you may not (.) tai you are not allowed]	ACC <EXP>
	278 LF2 [(xx)]	
FOCUS	279 T kymmenen ↑	ELIC
	280 LF1 ai mikä se toinen vaihtoehto oli	
BUILD	281 T you may not (.) drive a car (.) in Finland you may not (.)	DIRECT ANS
FOCUS continues	282 T entäpä kymmenen [saatko ajaa autoa ensi kesänä]	ELIC
	283 LF2 [(xx)]	
BUILD	284 T onko Veeralla	PRO <NOM>
	285 LF1 ai mikä	
BUILD	286 T saatko ajaa	ELIC <REP>
	287 LF1 öö (.) öö (.) >emmä tiiä< tuleeks siihen joku will vai	
	288 T kyllä ↑	ACC
	289 LF1 be allowed to	
	290 T mm ↑	PRO
	291 LF1 tota: eeh to: drive a car next summer	
	292 T hyvä (.) hienoo ↑ (.)	EVAL <POS>
FOCUS	293 T saan ajaa kun olen riittävän vanha (.)	ELIC
	294 T Johanna	NOM

	295 LF4 eeh I will be allowed to drive I'm tai when I'm emmä tiiä mikä on riittävän vanha	
BUILD	296 T vanha ensin	PRO <CLUE>
	297 LF4 old	
BUILD	298 T ja tarpeeksi	PRO <CLUE>
	299 LF4 eeh	
BUILD	300 T enough (.) when I'm old enough (.) mieluummin (.) futuuri ↑ I will be allowed to drive (.)	DIRECT ANS <EXP>
FOCUS	301 T miksi John oli saanut ajaa kun hän oli kuusitoista vuotias (.)	ELIC
BUILD	302 T osaisko Sami sanoo	PRO <NOM>
	303 LM4 eeh (.) enpä s tiiä	
	304 (.)	
BUILD	305 T <miksi John oli saanut ajaa>	ELIC <REP>
	306 LF siis mitenkä se tuli se [(xx)]	
	307 LM4 [why John] (.) eeh	
BUILD	308 T pluskvamperfekti	CLUE
	309 LF5 legendaarinen	
	310 LF2 siis voi että ku kaikki jauhaa nyt sitä yäk mulle tulee mieleen sellanen hirvee kaikki nyt sanoo legendaarista	
	311 LM4 had (.) had been to drive a car	
	312 T mm (.)	ACC
	313 T nyt on näköjään vähän hauskan näkösesti tää tääl on näköjään lukenu ihan jotain muuta ennen (.)	DIR
	314 T <why had John been allowed to drive> (.)	DIRECT ANS
	315 T pomppii vähä (.) kato tarkkaa miten menee näin (.) siksakkia	DIR
	316 LF2 ei oo vaikeempaa voinu kirjottaa sitä	
	317 T mitä Kaisa kysy äsken	CHE
	318 LF2 ei Kaisa kysyny yhtää mitää	
SUMMARISE	319 T mm ↑	ACC <MOVE TO NEXT>

Appendix 3: Seating arrangement in the class

