

COMPLEXITY IN ADULT TASK-BASED LANGUAGE TEACHING FOR SPECIFIC PURPOSES SUPPORTING DOCTOR- PATIENT CONVERSATION IN XHOSA

By

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DECLARATION

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ABSTRACT

The purpose of this study is to apply relevant and up-to-date theories concerning language learning and acquisition to the specific needs of second-language learners of isiXhosa in the field of health sciences through microanalysis of doctor-patient dialogues in isiXhosa.

This study explores a task-based approach to language learning and teaching that differs from traditionally applied methods. In this approach, the performance of a task is regarded as the key feature in the language-learning process. This is in accordance with the central aim of the task-based approach to language learning and teaching, which is to transform the prescribed roles of teachers and learners in the classroom context so that learners move from being passive observers to being actively involved in their own learning processes, and teachers become facilitators and not presenters of the language.

In an endeavour to exploit the possibilities of tasks in the teaching and learning of isiXhosa for health sciences needs, this study investigates the various components that comprise a task as well as the possible effects that these components may have on language learning and use. The results of the study could then provide teachers of second-language courses with specific notions and strategies, which, when successfully applied, could ensure optimal language learning and acquisition for language learners.

To expand the study, an analysis is conducted regarding the presence and nature of cognitive complexity and syntactic complexity in authentic doctor-patient dialogues in isiXhosa. The classification of these conversations will serve to inform the manner in which tasks could be sequenced in a task-based language teaching course for second-language learners.

OPSOMMING

Die doel van hierdie studie is om relevante en moderne teorieë oor die aanleer en verwerwing van taal toe te pas, met die spesifieke behoeftes van tweedetaal Xhosa-leerders in die gesondheidswetenskappe in gedagte. Die mikro-ontleding van dokter-pasiëntdialoë in Xhosa sal hiervoor gebruik word.

Die studie verken 'n taakgebaseerde benadering tot die aanleer en onderrig van taal wat verskil van metodes wat tradisioneel toegepas is. In hierdie benadering word die uitvoering van 'n taak gesien as die sleutelkenmerk in die taalleerproses. Dit stem ooreen met die sentrale oogmerk van die taakgebaseerde benadering tot die aanleer en onderrig van taal, wat is om die voorgeskrewe rolle van onderwysers en leerders in die klaskamer-konteks te verander sodat leerders wegbeweeg daarvan om passiewe waarnemers te wees na 'n aktiewe betrokkenheid in hul eie leerprosesse en waar onderwysers fasiliteerders van die taal word en nie bloot aanbieders is nie.

In 'n poging om die moontlikhede van take in die onderrig en leer van isiXhosa vir gesondheidswetenskappebehoefte te ontgin, ondersoek hierdie studie die onderskeie komponente wat 'n taak opmaak, asook die moontlike uitwerkings wat hierdie komponente kan hê op aanleer en gebruik van taal. Die bevindings van die studie sou dan aan onderwysers van tweedetaalkursusse spesifieke idees en strategieë kon verskaf, wat, as dit suksesvol toegepas word, optimale aanleer en verwerwing vir taalleerders sou kon verseker.

Om die studie uit te brei, word 'n ontleding van die teenwoordigheid en aard van kognitiewe kompleksiteit en sintaktiese kompleksiteit in werklike informele dokter-pasiëntdialoë in isiXhosa gedoen. Die klassifikasie van hierdie gesprekke sal toeligting verskaf vir die plasing van take in volgorde in 'n taakgebaseerde kursus vir tweedetaalleerders.

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To begin with, I would like to dedicate this thesis to Sarah Khonzaphi Goqo who has lived with our family for 51 years and raised me as her own child. I know that her presence in my life is truly a blessing from God. She is my inspiration, my teacher, my friend and my mother. A great part of the person who I am today is because of her, and for that, I will forever be grateful.

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CHAPTER ONE

INTRODUCTION

1.1 PURPOSE OF STUDY

The purpose of this study is to investigate theoretical ideas and notions regarding the acquisition of second language learning and teaching. This study aims to explain the usefulness of the recently developed theory of task-based language learning and teaching, along with elements that comprise and complement this communicative approach to language learning and teaching. For too long, second language learners were subjected to meaningless language lessons in which their role was merely to listen and practice the features that were presented to them by the teacher. For the learner, a task-based language teaching approach to language learning aims to make whatever learning takes place in class relevant and usable when stepping outside of the classroom into their reality. Furthermore, this approach aims to supply teachers with sufficient information and equip them with various skills concerning the nature of language, the processes involved in learning a second language, the sequencing and design of tasks and language courses as well as the objectives of teaching isiXhosa as a second or additional language.

1.2 THEORETICAL FRAMEWORK

This study adopts as theoretical framework the broad task-based theory as postulated in Edwards and Willis (2005); Bygate, Skehan and Swain (2001); Nunan (2003); Ellis (2003, 2005); Samuda (2005) and Skehan (1998). Relevant subject matters also forming part of the theoretical framework of this study include the psycholinguistic processes that are involved in language learning and use, planning as a manipulable task variable in aid of supporting language acquisition and improving language production, as well as the issue of teaching and designing language courses for specific purposes.

Due to the noticeable shortcomings of traditional language teaching approaches, second language researchers and teachers set out to develop an approach to language learning and teaching which would essentially assist learners in developing their target language in the most favourable way. With the increase in popularity of communicative language teaching, specialised pedagogic initiatives such as task-based language teaching developed. As Edwards and Willis (2005) state, this approach is based on a theory of language learning which abandons traditional notions of teaching language structures. In this approach, a task is seen as the central method of instruction in the language classroom and success is measured by the completion of a task through any means possible. Researchers argue that these means would more than likely lead to processes such as the negotiation of meaning, modification, rephrasing and experimenting, which according to Edwards and Willis (2005), lie at the heart of second language learning.

Nunan (2003) defines tasks as either being real world or pedagogic in nature. Last mentioned refers to real-world tasks - that is, occurrences that happen every day such as making a phone call, getting dressed, giving directions and more - that have been modified to suite the needs and accommodate restrictions of the classroom environment in which the tasks are performed. Language researchers encourage the use of authentic, real-world tasks with the intention of providing learners with the opportunity to engage in conversations that would actually take place outside of the language-teaching classroom. As noted by researchers Ellis (2003) and Edwards and Willis (2005), tasks can furthermore be defined according to the presence of certain characteristics and variables in them. In a task-based language teaching approach, teachers attempt to manipulate these characteristics and variables to focus learners' attention on certain linguistic and grammatical features of the target language without them being aware of it. According to Ellis (2005), task-based theories that concern language learning, acknowledges the importance of some form of language focus. In task-based theory, such a focus is generally referred to as *focus-on-form*. Edwards and Willis (2005) support this notion and state that the development of learners' interlanguage systems partly depend on them noticing relevant features of the linguistic system in order to

reconstruct their knowledge of the target language. A proposed time for when such a focus should occur, is found in Skehan (1998) who advances the views of Jane Willis (1996). Willis devised a model for task-based instruction that consist of three phases, namely the pre-task phase, the task cycle and the language focus phase. According to this model of task-based instruction, any type of language focus should take place after learners have been introduced to and prepared for the task and given the opportunity to complete the task by any means possible. Willis argues that in this way, learners will see the relevance of the form that is being focused on in context of what they had already done.

Next, in order to understand the way in which linguistic information is processed by the human brain, relevant theories regarding the psycholinguistic processes involved in language learning and use as postulated by researchers Skehan (1998), Ellis (2003), Nunan (2003), Goh (2005) and Rubin (2005), are investigated. Here, the central issues to be discussed will relate to the various stages argued to be involved in information processing. These stages comprise the input management stage, the central processing stage and the language production stage. In addition, this sub-section of chapter two also explores the unforeseen relationship that exists between production and acquisition.

Teachers who have adopted a task-based approach to second language teaching, have to make use of various methods to bring certain salient forms of the target language to the attention of the learners. According to Ellis (2005), many researchers view planning as the only task variable able to produce relatively consistent effects on second language production. Significant issues related to planning that will be examined in chapter two are firstly the three key concepts involved in production, namely attention and noticing, working memory and focus-on-form. This study will give an indication of the way in which these three concepts promote acquisition and how planning strengthens the possibility thereof. Next, the relationship that exists between the three dimensions of production, namely fluency, accuracy and complexity and acquisition will

be discussed. Thereafter, a closer look is taken at how different planning types affect these dimensions of production.

The final issue forming part of the theoretical framework of this study concerns that of teaching language for specific purposes. According to Basturkmen (2006), the foundation of this approach to second language teaching is based on notions regarding the nature of language, the nature of learning and the nature of teaching. As put forward in Basturkmen (2006), this approach to language learning will be examined by using the frameworks of Stern (1983, 1992) as well as Richards and Rodgers (1986). The inclusion of this subject matter will provide evidence for the relationship that exists between designing language courses for specific purposes and the special needs of second language learners when attempting to form part of their target community.

1.3 ORGANIZATION OF STUDY

The organization of this study correlates with the steps needed to perform an analysis of medical discursal texts for Xhosa with the purpose of determining the different levels of cognitive and syntactic complexities within each of them. In determining this, teachers and course designers are supplied with vital information concerning the teaching and development of task-based second language courses.

To begin with, chapter two of this study is divided into four main areas of discussion related to the field of second language learning and acquisition. The first concerns a task-based approach to language learning and teaching. This part of the study will examine up to date theoretical perspectives, ideas and notions that inform a task-based approach to language learning and teaching. The second part of chapter two will aim to describe the psycholinguistic processes involved in language learning and use. This section will be comprised of discussions regarding the existence and functioning of a human information-processing model. It will also examine theories surrounding the relationship that exists between production and language acquisition. The third section of chapter two will look at the influence that the metacognitive skill of planning can have

on various areas of second language production. This pedagogically manipulable skill was chosen because of the noticeably consistent effects it has shown to have on second language production. The fourth section of chapter two will concern the matter of teaching a language course designed for specific purposes, along with the ideas and options that inform such an approach to language teaching.

In chapter three, authentic medical dialogues in Xhosa will be analysed according to their cognitive and syntactic complexity. The analysis that will take place in chapter three will be theoretically informed by two models of complexity, put forward separately by Peter Robinson (2001) and Foster *et al.* (2000). Robinson's study investigates the nature of cognitive complexity in language texts and the connotation it has with task sequencing. He furthermore sets out to create a framework, which would ultimately aid language teachers in the design and sequencing of tasks within a task-based approach to language teaching. This framework is based on the central notion of the Cognition Hypothesis that the increase in cognitive complexity should be a guiding factor when sequencing pedagogic tasks for learning purposes. The second model of complexity that will be applied in this study is the Analysis of Speech Unit (AS-unit), as put forward by Foster *et al.* (2000). Foster *et al.* argue that this carefully devised and proven reliable unit has the ability to measure the frequency in which particular discourse features such as confirmation checks, clarification requests, self-corrections and grammatical features appear in unmodified language texts. Within this study, the AS-unit will be applied to determine the syntactic complexity evident in the authentic isiXhosa dialogues presented in chapter three. This chapter will furthermore contain a brief conclusion regarding the correlation that exists between the cognitive- and syntactic complexities that are present in the analysed isiXhosa dialogues. The main findings for both chapters two and three will however be presented in chapter four.

CHAPTER TWO

THEORETICAL ISSUES IN TASK-BASED SECOND LANGUAGE LEARNING AND TEACHING

2. INTRODUCTION

The main goal of this chapter is to present a review of the development of task-based theory and research. Section 2.1 will give a thorough account of the traditional approach to language teaching as well as the processes and thoughts that followed, which lead up to the development of a task-based language teaching approach. This will be followed by a discussion regarding the existing notions and processes of defining a *task*. To justify the use of such tasks in the language-teaching classroom, five leading psycholinguistic models of language learning and acquisition will be put forward. Next, the controversial topic of focus-on-form and its place in the task-based language-teaching classroom will be examined. Section 2.1 will conclude with a suggested framework for implementing task-based language teaching. Section 2.2 concerns the psycholinguistic processes that are involved in language learning and use. In this section, a closer look is taken at the way in which humans process linguistic information and how those processes lead to language production and acquisition. Section 2.3 will examine planning as a task variable in the task-based language-teaching classroom. First, the relationship between planning and three key concepts involved in production will be inspected. Thereafter, the different types of planning and their manipulable nature will be examined. This will lead to a conclusion regarding the effects that this variable has on language production and acquisition. The last section of this chapter will be about the designing of a language course for specific purposes. The notions of the foregoing sections will be drawn upon to examine the usefulness of such a course within the framework of task-based language teaching.

2.1 THEORIES AND PERSPECTIVES THAT REGARD AND COMPRISE A TASK-BASED APPROACH TO LANGUAGE TEACHING

2.1.1 The move towards Task-based Language Teaching

For many years, researchers have been questioning the effectiveness of the traditional, form-based approaches to second language acquisition. One of the most influential of these approaches, commonly referred to as PPP, suggests that teaching a new language should consist of three stages, namely the presentation-, the practice- and the production stage. In the production stage, learners are required to reproduce the patterns and forms that their teachers taught them in the presentation phase. Edwards and Willis (2005: 4) call the result of such teaching *display language*. According to Edwards and Willis (2005: 14), the PPP sequence is attractive as it is relatively easy to organise and to implement when teaching large groups of students. They argue that it also has the ability to produce manageable goals from which precise syllabuses can be designed. The popularity of this approach is therefore directly related to the control that it allows the teacher to have in the teaching environment, which makes it essentially teacher-centred. The important question that this raises is whether learners are learning, processing and storing the feature that is being taught, or whether they are simply repeating what the teacher desires to hear. In reaction to this matter, second language acquisition researchers Bygate, Skehan and Swain (2001: 3) conducted various studies and determined that input alone served as an inadequate explanation for language development and thus challenged the passive role prescribed to the learner in the traditional language-learning classroom.

Subsequently, a communicative language teaching approach to language learning, which aimed to be essentially learner centred, emerged. According to Nunan (2003:10), this movement can be seen as a broad philosophical approach to the language curriculum that draws on theory and research in linguistics, anthropology, psychology and sociology. Ellis (2003: 27) states that one of the main objectives of communicative language teaching is to develop a learner's ability to *use* the target language in real life

communication situations. He states that by adopting this approach, the language teacher's main concern would be providing learners with opportunities for oral communicative practice. This can be done by what Nunan calls *experiential learning*, which involves focussing on the learner's immediate personal experiences as a starting point for developing a curriculum. Nunan (2003: 12) suggests that by doing this, learners will "learn by doing". This raises yet another question of *what* and *how* students learn. This is where the importance of authentic samples of second language learners' language use comes into play. By analysing such samples, researchers and teachers can observe how second language learners over time, when not attending to accuracy, construct and restructure their interlanguage system. These insights can then be incorporated into the language course design. According to Ellis (2003: 1), the best way of eliciting such samples is by making use of **tasks**.

Samuda (2005:230) argues that as the popularity of using tasks increased, the term became more closely associated with specialised pedagogic initiatives such as task-based language teaching. In this approach, a task is seen as the central method of instruction. Nunan (2003:10) points out that task-based language teaching can therefore be seen as the realisation of the communicative language teaching philosophy at the levels of syllabus design and methodology. In the introduction of *Teachers Exploring Tasks in English Language Teaching*, Edwards and Willis (2005: introduction) make the statement that task-based language teaching is based on a theory of language learning – not language structure. The reason for this is that tasks are believed to encourage processes that are involved in language learning, such as the negotiation of meaning, modification, rephrasing and experimenting. They emphasise that these processes lie at the heart of second language learning and will be discussed further on in the paper. To better explore this theory of language learning and the value of tasks, it is necessary to specify what exactly is meant by the term "task".

2.1.2 Defining a task

According to Edwards and Willis (2005:17), there exists no single definition for the term task as it is used in the language-teaching context. They argue that discrepancies as regards to the definition of a task are mainly because of the fact that the study and description thereof has been looked at from different perspectives and for different purposes. The most cited definition of a task is that of Nunan. Nunan (2003:4) states that a pedagogic task is a piece of classroom work that involves learners in comprehending, manipulating, producing or interacting in the target language. During this, the learners' attention is principally focused on meaning rather than grammatical form. Bygate, Skehan and Swain (2001:9) note that the main problem with this definition, and many alike, is that it is context free, thus limiting the range of its application possibilities. They suggest that the solution to this problem lies in defining tasks separately and according to their different intentions.

Ellis (2003: 1 – 10) takes a different approach in defining a task. In it, he examines the various definitions of tasks given by other researchers in the field. From his research, he noted six dimensions, which in some respect relate to the way a task is designed, used or evaluated. These dimensions concern the scope, perspective, authenticity, language skills, cognitive processes, and outcomes relating to tasks. Following this, Ellis identified six criterial features that should materialize in tasks. These features include seeing a task as being a *workplan* with a primary focus on *meaning* while incorporating *real-world processes* of language use which can involve any (or all) of the *language skills*. Furthermore, he states that the task should engage the learner's *cognitive processes* and have a clearly defined *outcome*. These features correlate with the five task characteristics suggested by Edwards and Willis (2005: 3).

Different task types will now be examined in order to further the research into the definition of a task. However, before moving on, it is important to conclude this section with a statement that Nunan has made. Nunan (2003: 4) noted that even though task definitions do vary, they all emphasize the importance of a task involving communicative

language use in which the learner's attention is focused on meaning, rather than grammatical form. As will be evident throughout the remainder of this chapter, this statement does not mean that there is no place for form in a task-based language teaching classroom.

2.1.2.1 Task types

Edwards and Willis (2005:19) state that the ability to distinguish between different task types give researchers of second language learning insights as to how effective a task is in promoting learning. Task types can be identified in a number of ways and hold a lot of possibility for language learning if applied correctly. According to Nunan (2003:1), tasks can be divided into two main categories, namely real-world tasks and pedagogic tasks. In describing a pedagogic task, Nunan (2003:2) refers to Long who stated that a task could be defined as the "101 things we do in everyday life", for example washing clothes, making a doctors appointment and many more. Nunan then suggests that when these *101 things* are brought into the classroom environment, it changes from being real-world tasks, to being pedagogic tasks. Edwards and Willis (2005: 19) further subdivides pedagogical tasks into six task types that can be identified according to a number of occurring elements. The first of these is associated with the occurrence of a specific language function that has to be performed in the task, for example giving instructions, greeting, making suggestions or apologizing. The second subdivision is labelled according to the cognitive processes involved in performing the task, such as ordering, sequencing, problem solving and being creative. The third task type is classified according to its specific topic. The different language skill that a learner uses or is required to use constitutes the fourth task type. The fifth task type depends on whether the task is closed- or open-ended. Edwards and Willis lastly typify a task according to the interaction it requires, be it one-way or two-way interaction.

The implementation and selection of these tasks play a significant role in task-based language teaching. When used correctly, these tasks and the conditions under which they are performed can be directed to focus a learner's attention on specific areas of the

linguistic system. The means of doing this is by manipulating task variables. The following section explores more closely views on task variables as identified by various researchers.

2.1.2.2 Task variables

According to Edwards and Willis (2005: 20) task variables are, as the name states, unpredictable elements that have different effects on tasks. These variables can be specifically related to the task itself, such as the *structure* of a task, that is, whether a task provides a series of prompts to direct the interaction therefore assisting in the completion of the task. It can also be related to the *learner* self, for instance whether a learner is familiar with the task type to be performed or the interlocutor participating in the performance. Furthermore, the variables can relate to the *cognitive demands* of the task, for instance whether the task contains many elements or supplies the learner with sufficient planning time to contemplate his or her performance. The last variable that Edwards and Willis mention is the actual *condition* under which the learner has to perform the task, be it public in front of many people or in private.

In a separate study, Robinson (2005) explored a number of interacting variables and developed the Triadic Componential Framework. In this framework, he distinguishes a number of variables of task complexity, task difficulty and task conditions to look at the influence that each of them have on task performance and learning. A more in depth discussion of Robinson's work follows in chapter 3 of this paper.

Task-based teaching research concludes that teachers should strive to expose learners to as many task types as possible in order to aid learners in the communication process. These tasks should furthermore be sequenced in such a way that learners are pushed to activate, stretch and refine their current interlanguage and processing capacities. As important as this may be, the question of how we learn a new language, and why the manipulation of these variables would have any influence on the learning process, has still not been answered. In resolving this matter, it is necessary to examine the

theoretical basis on which task-based language learning and language acquisition rests. The carefully selected psycholinguistic models that will be described in the next section provide a closer look at how a language is acquired according to theory. These theories stretch from perspectives that claim that input is sufficient for language acquisition, to perspectives that claim that social interaction is a necessary part of language learning and acquisition.

2.1.3 Psycholinguistic models of language learning and acquisition

According to Nunan (2003:76), some of the earliest models of language learning originated from Stephen Krashen. Although Krashen's hypotheses are somewhat controversial, they still attract a lot of attention from current language researchers. Certainly, the most notorious of all is his *Input Hypothesis*. In it, Krashen claims that we can acquire a language when we understand the messages (input) of the target language, provided the message is just beyond our current level of acquired competence. In other words, for learners to progress from one stage of acquisition to the next, they need to comprehend language that includes structures that are a stage beyond their current level of linguistic knowledge. Nunan (2003: 79) points out that Krashen further suggested reception should precede production; particularly in the early stages of the acquisition process. According to Ellis (2003: 23), this input-driven approach to language learning implies that language learning will occur incidentally and subconsciously. Despite the fact that the central idea of the Input Hypothesis of receiving comprehensible input looks promising, this theory of Krashen receives much criticism for not paying any attention to the production process of language.

Ellis (2003:23) notes that Long extended the claims made in Krashen's input hypothesis and developed the *Interaction Hypothesis*. This hypothesis claims that the best input for language acquisition is acquired when learners interact and have the opportunity to negotiate meaning. Long argues that the exchange of information gives learners the opportunity to receive feedback in the target language. However, Edwards and Willis (2005: 21) state most important is that this feedback is given on their current level of

comprehension. Consequently, this type of *comprehensible* input will result in modified output, which provides evidence that some sort of attention to form is given.

Nunan (2003:80) points out that in correspondence to the claims made in the interaction hypothesis, Meryl Swain developed the *Output Hypothesis* in which she suggests that modified output is a definite indication of learning at work. Edwards and Willis (2005: 22) note that Swain further claims that output is not just a result of acquisition that has already taken place, but that it plays an important role in the acquisition process itself. She argues that when learners produce what she calls "pushed output" - due to the pressures and requirements of real-time communication - they are forced to move from a semantic analysis of the target language, to a syntactic analysis of it. It is hypothesised that by doing this, learners notice a gap between what they are able to say and what they desire to say. This, in turn, will prompt them in stretching their interlanguage capacity in order to "fill the gap".

Ellis (2003:24) argues that the *Socio-cultural perspectives* on language learning suggest that the stretching of a learner's interlanguage capacity (as described above) takes place when learners have the opportunity to interact with other users of the language. Edwards and Willis (2005: 24) further note that this perspective, which originated from the works of Vygotsky, proposes that learners first succeed in performing a new function with the help of others. It is theorised that with time and practice this function will become internalised and the learner will be able to use it unassisted. According to Edwards and Willis (2005: 25), this proposed process is often called *scaffolding*.

The last of the psycholinguistic models to be discussed in this section is Skehan's *Cognitive Perspectives* on language learning and processing. It is best to discuss this model in retrospect to the main conclusions of the theories discussed above. At this stage, it is possible to conclude that for language learning and acquisition to take place, research has shown that comprehensible input, which is best achieved by interaction, is a necessity. This type of input can furthermore result in a type of modified output in which the learners become aware of shortcoming linguistic features in their

interlanguage repertoire. Consequently, the interactiveness of the negotiation process forces the learner to stretch his or her interlanguage knowledge, resulting in language development. According to Edwards and Willis (2005: 23), Skehan's cognitive perspectives on language learning and processing proposes that this development of a learner's interlanguage can be channelled to influence three different aspects of the learner's performance, namely fluency, accuracy and complexity. Here, fluency refers to the learner's ability to communicate in real-time communication situations. The second aspect is accuracy, which is associated with the learner's ability to use the target language efficiently according to its norms. The third aspect concerns complexity. Complexity relates to the learner's ability to use more detailed and complex language structures when performing a task. Edwards and Willis (2005: 23) continues and state that according to Skehan, these three aspects of a learner's performance can be influenced by engaging learners in different types of production and communication tasks. He suggests that meaning-orientated tasks would most likely influence a learner's fluency and that form-focused task work will most likely affect a learner's accuracy and complexity when performing a task. Last mentioned leads to the next feature of task-based language teaching, namely whether the chosen task type should be presented as a focused task, or not. To explore this topic, it is necessary to look at the place of focus on form in task-based language teaching.

2.1.4 Focus on form

In second language acquisition literature, the term focus-on-form has been used in three related but different ways. According to Ellis (2005: 9), these ways depend on whether the perspective from which it is used is a pedagogic one, a discursal one, or a psycholinguistic one. He states that from a pedagogical perspective, focus on form refers to instructors' efforts to intervene in the process of acquisition by influencing learners to pay attention to linguistic form while they are primarily concerned with decoding or encoding message content. These attempts can be planned, for example, when a specific form is selected for attention, or incidental, when specific forms are attended to as the need arises. From a communicative perspective, Ellis (2005: 9)

argues that focus-on-form refers to the anticipatory and reactive devices that interlocutors use to draw attention to form while learners are engaged in performing some task that gives priority to message conveyance. These devices commonly consist of queries regarding linguistic form or various types of implicit and explicit corrective feedback, such as reformulations of learners' incorrect utterances, better known as recasts. In regards to psycholinguistics, Ellis further suggests that focus-on-form refers to the mental processes that are involved when selective attention is given to linguistic form during an attempt to communicate. The term "noticing" is often used as a cover term to refer to these processes.

2.1.4.1 The place of focus on form in task-based language teaching:

According to Edwards and Willis (2005: 16), the initial focus of task-based language teaching was on fluency; thinking that knowing *how* to use a language would result in accuracy and complexity. However, they argue that research determined that learners needed to be encouraged to focus their attention on different aspects of grammar in order to achieve acceptable levels of accuracy in the target language. Edward and Willis state that nowadays, it is believed that without some sort of focus, learners would be able to manage a conversation, but not progress to a stage of almost native-like fluency. This is because it is widely accepted that learning partly depends on a learner's ability to attend to relevant features of the linguistic system to reconstruct their current knowledge of the target language and to focus on form. Therefore, even though an explicit focus on form still elicits much criticism, the relevance of it in a language-teaching course cannot be denied.

The question to be asked is *where* teachers should fit such a focus in the language learning process. Nunan (2003: 101) suggests that some form of focus should take place in the pre-communicative stage of a task. He adds on by stating that learners cannot be expected to produce a language structure that they have not been introduced to before hand. Nunan points out that this approach might seem very similar to the presentation phase of the PPP approach to language teaching. Researchers and

teachers' main concern with this approach is that it restricts the learners and their language use by predetermining a successful outcome. According to Nunan (2003: 101), this goes against a key concept of communicative- and task-based language teaching, specifying that learners should be free to express meaning by any means possible. With this in mind, the place of any kind of focus in a task-based language teaching approach seems somewhat controversial. The difference, as will be evident in the section that follows, is how this focus is implemented.

2.1.4.2 Focused versus unfocused tasks in task-based language teaching

According to Nunan (2003: 111) and other researchers, the communicative language teaching approach to language learning has a strong and weak interpretation. The strong interpretation correlates with the basic assumption of task-based language teaching in that language learning should originate from the use of real world, unfocused tasks, which contains no linguistic focus whatsoever. Nunan points out that the weak interpretation has recently been related to what is called task-supported language teaching, due to the nature of the tasks that comprise it. These tasks are mostly focused, which means that they do aim to elicit a specific linguistic feature throughout the performance of the task. According to Edwards and Willis (2005: 15), many teachers and course designers choose to use the last mentioned approach in language classrooms. They argue that this could be because language teachers find it difficult to abandon the PPP approach because of the size of the class and due to the lack of outcome control that a task-based teaching approach demands.

Many researchers, however, choose not to distinguish between task-based and task-supported language teaching. Ellis (2003: 140), for instance, states that even though unfocused and focused tasks have different purposes, they both have the same general criteria. This criteria requires that the task (unfocused or focused) has to have a primary concern for message content, that the learners have to be able to choose either linguistic or non-linguistic resources to complete the task and that the tasks need to have a clearly defined outcome towards which the learners can work. On the surface, it

appears that the definition of focused tasks goes against the second criteria described above. To argue this point, Nunan (2003: 95) states that focused tasks can indeed be completed by any means possible, but that the completion of the task would be easier if a specific form is used.

Ellis (2003: 141) states that the confusion surrounding focused tasks can further be attributed to the misconception that exists between situational grammar exercises and focused tasks. In a situational grammar exercise, learners are told what the linguistic feature is. Consequently, learners direct their attention towards that feature and attempt to reproduce it. According to Ellis, focused tasks, in the task-based approach to language teaching, are specifically designed so that the explicit focus on form is vaguely, if at all, noticeable. The learners are not told what the linguistic focus is, and therefore they approach the task in the same way as they would unfocused tasks. Any type of focus that arises in performing these tasks would be considered as occurring incidentally. To understand the value and necessity of focused tasks within task-based language teaching approach, we need to consider the psycholinguistic rationale behind the use of focused tasks.

2.1.4.3 The psycholinguistic rationale behind focused tasks

Besides the fact that focused tasks provide means for teachers to teach specific linguistic features communicatively and for researchers to measure whether learners then acquire the specified feature, Ellis (2003: 144) argues that focused tasks also aid learners in skill-automatization and implicit learning.

2.1.4.3.1 Skill-automatization

Regarding skill-automatization, researchers all agree that effective communicative language use requires rapid online processing. In other words, learners need to be able to comprehend what is spoken, process the input and formulate an appropriate response in as little time as possible. In order to achieve this, learners need to develop

what is called automatic processing abilities or procedural knowledge. Ellis (2003: 144) refers to researchers McLaughlin and Heredia, who state that automatic processing involves the activation of certain nodes in the memory each time the appropriate inputs are present and that this activation can be seen as a learned response that has been built up through consistent mapping of the same pattern over many trials. According to Ellis (2003: 144, 145), there are two closely related theories regarding the manner in which skill-automization develops. The first theory claims that automatic processes develop out of controlled processes, which, in contrast with automatic processes, require attentional control in order for certain nodes to be activated. Controlled processing also occurs at a slower pace than automatic processes do, and can only activate one process at a time. The second theory that Ellis (2003: 145) puts forward rests on the notion that skill development is a result of the proceduralization of declarative knowledge, in which case *declarative knowledge* can be seen as factual knowledge about the target language. Ellis further theorizes that when learners use a particular feature correctly, and without having to think about it, the knowledge that was first represented as declarative knowledge, change to being *procedural knowledge*.

Ellis argues that the key benefit of the notions of automatic processing as well as procedural knowledge is that it does not take up much of the memory's processing capacity, which in effect leaves more space for the processing of higher-order skills such as attending to the message content rather than form. It is clear that in both theories, the move from one stage to the next involves some form of *practice* on the language learner's behalf. During this time, learners should be given the opportunity to engage in communicative activities in which the targeted feature appears in its natural form. A skill will consequently become automatized or proceduralized, resulting in the learners being able to move away from attending to form, towards focussing on message content. The best way of supplying learners with opportunities to practice such features, is by using focused tasks. Again, as was mentioned in the previous section, Ellis (2003: 146) refers to Johnson who states that the instruction accompanying these focused tasks should not be explicit, but that it should rather involve hints to push learners in developing declarative knowledge that can be proceduralized. Ellis (2003: 146) also

refers to DeKeyser who, in discussing the possibility that language is decontextualised when any form of practice takes place, states that teachers should aim to direct learners' attention towards practicing behaviour, rather than structure.

2.1.4.3.2 Implicit learning

To see the relevance of the relationship between focused tasks and implicit learning for task-based language teaching, it is necessary to look at the nature of implicit and explicit learning. Ellis (2003: 148) defines implicit learning as the acquisition of knowledge regarding the underlying structure of a complex stimulus environment by a process that takes place naturally, simply and without conscious operations. He continues and states that implicit learning involves not so much the abstraction of rules from the input, but the development of highly complex networks of connections that over time might become so established as to lead to behaviour that appears rule like. Implicit knowledge is therefore driven by a person's ability to, without instructional control, detect recurring elements in the input and then to store those patterns. Explicit learning refers to knowledge that learners acquired as a result of explicit instruction. Ellis (2003: 148) postulates that the relationship between implicit and explicit learning, can be viewed from two perspectives. The strong interpretation views the processes involved in implicit- and explicit learning as inherently separate. The weak interpretation supposes that implicit learning serves as a basis for the acquisition of explicit knowledge. In addition, the weak interpretation assumes that explicit learning creates opportunities for implicit learning to occur, in that a specific focus leads the learner to notice certain features in the target language. This leads to learners becoming aware of holes in their language repertoires, forcing them to create new representations that would ultimately fill these holes.

The weak interpretation is particularly relevant for second language learners who do not have the same opportunities as native speakers to be exposed to the target language. For second language learners, implicit learning will only be possible if the learner has sufficient exposure of the target language, as it occurs naturally. This is why focused

tasks in task-based language learning play an important role in the implicit learning process of second language learners, seeing as these tasks strive to elicit specific features without explicitly focussing on it, in a real-world communication situation.

2.1.5 A framework for implementing a task-based approach into the language teaching classroom

Up until now, various issues relating to a task-based teaching approach to language acquisition and learning have been examined. The question however remains of how one would develop a language lesson according to a task-based approach. A solution is supplied by Skehan (1998: 127), when he refers to a framework developed by Jane Willis (1996). Skehan (1998: 126) states that Willis's framework regarding the implementation of a task-based approach to language learning and teaching is based on five principles. These principles are as follow:

1. There should be exposure to worthwhile and authentic language.
2. There should be use of language.
3. Tasks should motivate learners to engage in language use.
4. There should be a focus on language at some points of the task cycle.
5. The focus on language should be more and less prominent at different times.

As noted by Skehan (1998: 126, 127) Willis's model for task-based instruction can be divided into three phases, namely the pre-task phase, the task cycle phase and the language focus phase. The first phase concerns different pre-task activities aimed at generating a learner's interest in the task in order to activate pre-existing knowledge, exposing the learner to authentic samples of the target language in order for noticing to occur and to focus the learner's attention. The task cycle stage consists of three sub-stages. The first of these is doing the task. In this stage, learners will have the opportunity to use the target language. This could result in learners developing their current interlanguage system. In discussing Willis's principles, Skehan (1998: 128) states that the main objective, however, is to sensitize learners to the language that needs to be used. The second stage in the Willis's task cycle is planning after the task

has been completed, but before it is reported. This stage provides learners with the opportunity to rehearse their performance and so learn from one another through collaborative learning. Here, the teacher has the chance to direct learners in certain directions by helping them make important form-meaning connections. The third stage is the reporting of the task. Because the task has to be performed, it immediately heightens learners' attention to form and accuracy. This stage also reinforces what was planned in the previous stage.

The next phase that Skehan (1998: 128) discusses is the language focus phase. In this phase, one would typically find teachers and learners analysing the outcomes of the various tasks that were performed. Willis is of meaning that this is the stage when one can explicitly focus on language and where learners can even be asked to practice certain language structures. What is important is that this focus happens after a task has been performed so that learners will be able to see the relevance of the form that is being focused on in context of what they already had done.

Thus far, the primary concern of this paper was to describe different aspects of tasks and the justification behind using a task-based approach to language learning. In the next section, however, the focus will be directed towards the learner and the psycholinguistic processes believed to be involved in language use and production. This discussion will develop from the psycholinguistic processes that are involved in a learner's memory function that ultimately results in the actual use of the language.

2.2 THE PSYCHOLINGUISTIC PROCESSES INVOLVED IN LANGUAGE LEARNING AND USE

2.2.1 The human information processing system

The human information processing system refers to the processes involved when one listens to input messages, process what is said, and then formulate a personal response. Skehan (1998: 43) states that this system consists of three stages, namely

the input stage, the central processing stage and the output or production stage. These stages, along with the components that comprise them, will be discussed briefly.

2.2.1.1 The Input management stage

According to Skehan, the input management stage constitutes the first stage of the human information processing system in which a learner is exposed to various types of target language input and information. There are two matters to be examined in connection with this stage. These concern theories regarding memory usage and the means in which input is selected.

2.2.1.1.1 Memory usage

Researchers, such as Skehan (1998: 44), see a person's memory function as consisting of two main systems, the long-term memory system and the short-term memory system. In short, it is theorised that the long-term memory system consists of information that has been automatized or proceduralized and do not require any means of controlled processing for relevant information to be activated. Skehan suggests that this memory system is also believed to have a large information storage capacity. In contrast, he claims that the short-term memory system is believed to have limited storage capacity. The duration of the information in this system is, as the name states, short.

Skehan (1998: 44) states that many researchers consider that long-term memory results from short-term memory. Perhaps to make this transformation process more understandable, Skehan started referring to short-term memory as *working memory*. This term better described the extensive processes that are constantly activated in the short-term memory system. Along with other researchers, Skehan (1998: 44) sees the working memory as containing rehearsal loops in which information – be it phonological or visual - is circulated and given the chance to interact with the activated materials of the long-term memory system. The proposed effect of this process is that when input is

comprehended, the person involved has a limited capacity memory system available to process it. The constraint that this places on the learner, forces him or her to extract only the most important input, which would be relevant for ongoing comprehension. According to Skehan, this information then supposedly interacts with activated materials from the long-term memory system, such as a person's knowledge of syntax, lexical elements, lexical chunks and more. The question that researchers have been asking is *how* learners decide which input is important. In other words, what makes some forms stand out from the rest? This will be discussed in the section below regarding input selection.

2.2.1.1.2 Input selection

Skehan (1998: 48 – 49) refers to a claim made by Schmidt in which he stated that there are four important factors that contribute to some input seeming more important than others do. The first of which is directly related to the learner. This concerns the current state of a learner's interlanguage system and can involve anything from a language aptitude to whether he or she possesses sufficient processing capabilities in order to understand or, as Schmidt terms it, "notice" the input. The second factor is related to different task demands. These could refer to matters of content familiarity, text complexity or time constraints. The third factor concerns whether the input is focused or not. This includes whether a task is accompanied by instruction. It could also refer to the desired effect that the task has on the learner's performance, be it fluency, accuracy or complexity. A learner's intake or noticing of a specific form can lastly be influenced by the quality of the input, that is, the frequency at which the form appears and how salient it is made. After paying attention or noticing certain aspects of the input, the selected information is placed in the working memory system. The term used to describe this process is intake. Next, we have to look at what type of system the input reaches and what happens with it in that system.

2.2.1.2 Central processing

The central processing stage is characterised by the works of two activated systems, which play a vital role in processing the intake. These two systems are called the rule-based system and the exemplar based system. The question regarding which of these systems are used more frequently and effectively will be discussed in the section below.

2.2.1.2.1 A rule-based system versus an exemplar-based system

Skehan (1998: 53) and other researchers agree that the interaction that occurs in the central processing stage relates to two systems that exist in the memory base. The first of which, is called the rule-based, also referred to as the analytic system. Skehan suggests that through the useful exposure to the target language in this stage, learners can construct an underlying language system consisting of language rules as learning occurs. These rules are then generalized and applied to different situations. Skehan (1998: 53) states that the implication for language learning when using such a system is that interlanguage development will depend on the growth and complexity of the underlying system as a result of the restructuring that occurs with newly acquired linguistic material. The second system is called the formulaic- or exemplar-based system. Here, Skehan interprets learning as the collection of formulaic chunks of language. Users of exemplar-based systems rely on matching up current input with previously known correct ones. This system regards linguistic development as the accumulation of more such exemplars, which would be rapidly accessible and useful during the production process.

According to Ellis (2003: 106), there is widespread recognition by both linguists and cognitive psychologists that these two systems in fact coexist. However, Ellis (2003: 107) states that a discrepancy exists regarding the nature of the relationship between the two systems. Ellis refers to researchers Krashen and Scarcella who argue that these two systems are entirely independent and do not interact. This especially relates to second language learners. It is argued that second language learners do not analyze

formulaic chunks in order to determine the rules that function in it, but that they rather acquire rules independently while processing input. On the other hand, Ellis mentions researchers like Wong Fillmore who maintains that manufactured chunks of language serve as a basis for subsequent rule development when learners come to recognise the separate units that comprise it.

The reality is that learners can make use of either system to make sense of what is happening around them. The difference will most probably be evident in either the resulting outcome or the development of the learner. Skehan (1998: 30) suggests that a rule-based system will offer more flexibility, in the sense that the learner will be able to construct and reconstruct his or her output with precision and accuracy. This, in terms of processing capacity, will inevitably take longer than when using formulaic chunks. The opposite applies when using an exemplar-based system. However, despite the rapid accessibility of the ready-made chunks, they would still lack a substantial amount of accuracy and complexity.

Skehan (1998: 30–40) states that there are many advantages as well as disadvantages in viewing language learning according to a rule-based system. He suggests that a rule-based system, for instance, creates the possibility of enabling learners to be creative and able to adapt well to what is said. Adding to this, Skehan (1998: 31) refers to Bolinger who claims that rule-based approaches to language learning facilitate the expressions of new meanings and enables the generation of utterances which have never been used before. He continues and states that if well structured, these units and the lexical elements that represent such structures in the memory, will take up little memory space. However, the operating of a rule-based system may prove to be taxing in psychological resources and relatively inadequate for the on-line demands of real world processing.

The solution to this problem can be found in a combination of analytical- and lexical-based systems. Skehan (1998: 40) states that the key to sustained progress in language is the balanced development in different areas of second language

performance. He adds that the excessive development in one area of the language may well happen at the expense of another area in the learner's language development. Skehan (1998: 63) also refers to a statement made by VanPatten, which he stated the problem for second language learners is that the limitedness of their knowledge forces them to decide between form and meaning. In second language processing, meaning would most definitely take priority, inevitably leaving fewer resources available for attending to form. Therefore, second language learners have less potential to extract useful aspects of the form of the input. Perhaps this serves as another reason why focus on form's place in task-based language teaching cannot be denied. The advantages of an exemplar-based approach will be discussed in the next section where a closer look is taken at the production or output stage of the human information processing system.

2.2.1.3 Language production

According to Ellis (2003: 108), humans possess limited processing capacities, which make it difficult to process more than one task at a time – especially when they lack automatized skills and knowledge of the language. He continues to state that a complex skill such as speaking requires the performance of a number of simultaneous operations that causes processing pressure. How then, should learners cope with this pressure? To answer this question, Ellis refers to Skehan who proposes that speakers first need to acquire a solid repertoire of formulaic chunks. By doing this, speakers are able to draw on an exemplar-based system in the formulation stage of their production. This then gives them a chance of obtaining quick and easy access to the linguistic means needed to acquire a phonetic plan. Ellis (2003: 109) however restates what Skehan claimed in the previous section regarding the rule- and exemplar-based systems. He argues that the problem with such an approach for second language learners is that it will most likely force them to focus on only one aspect of production at the expense of another. Therefore, with second language learners being primarily concerned by what they want to say, not much attention will be given to the grammatical formulation of their output. The result is that their speech will almost certainly be full of errors. However, not all is

lost. Skehan (1998: 20) maintain that the mindset of *speaking* in order to maintain conversation - even when sentences are clearly not accurate or complex - plays a vital role in language *acquisition*. To further investigate this claim, we now turn to the relationship that exists between production and acquisition.

2.2.2 Production and language acquisition

It is a curious notion that production could possibly aid language acquisition. One would not see the immediate connection. As Krashen stated, any form of production is a result of acquisition – certainly not the cause of it. This may be true for the initial stages of language learning, but as will be evident in the remainder of this section, production indeed leads to acquisition.

Ellis (2003: 111) developed a theoretical case for production playing a role in acquisition by referring to the six roles of production that Skehan and Swain on separate occasions suggested. He argues that the first role of production is to produce or generate better input. This role relates to a process commonly referred to by second language learning and acquisition researchers as the negotiation of meaning. Ellis (2003: 70) explains the negotiation of meaning process by stating that a dialogue exists in a communication situation, in which the participants exchange meaning in order to resolve what he calls *non-understanding*. In these situations, learners are exposed to text, which are constantly being modified. This presents them with the opportunity to correct their own language use whilst communicating, resulting in a possible restructuring of their individual interlanguage repertoire. Ellis (2003: 111) notes that the second role of production is that it forces syntactic processing. Thus far, the need for syntactic knowledge in developing one's language system has proven to be indisputable. Ellis substantiates this statement in explaining that during production, learners are repeatedly required to use their underlying (rule-based) language system when trying to express new meanings. The third role of production states that it allows learners to test out hypothesis regarding target-language grammar. This correlates with the second role that Ellis mentioned, in that learners are now given the opportunity to use the acquired

grammatical system and experiment with different ways in which it can be applied. The fourth role proposes that production helps with automatization of existing explicit second language knowledge in the sense that learners have the opportunity to practice their declarative knowledge of the language. Regarding the second last role of production, Ellis argues that it aids in providing opportunities for learners to develop discourse skills. He states that an effective communicator should be able to manage discourse situations by using negotiation of meaning. The only way to achieve this is to have sufficient opportunities to practice the target language. The sixth mentioned role of production suggests that it helps learners to develop a "personal voice". This concerns learners building up their confidence when performing in the target language. It is theorised that seeing how they succeed in their efforts will serve as a motivation for them to continue trying to master the target language. Ellis (2003: 111) states that a seventh role can be added to this, namely that production provides learners with what Schmidt and Frota calls "auto input". Here, the assumption is made that learners, while interacting, can attend to their own production and so notice certain shortcomings within it.

It is evident that some of these roles, such as numbers one, three, six, and seven, do not directly contribute to acquisition. These roles indirectly contribute to acquisition in the sense that they urge learners to make the effort to speak and modify their utterances if need be. Thus, it is clear that production does play a role in language acquisition. Ellis (2003: 110) however suggests that when learners rely on certain coping methods during real time production, it can stand in the way of their learning. To further this discussion, it is necessary to look at the different communication strategies that learners use during production.

2.2.2.1 Communication strategies and language acquisition

According to Ellis (2003: 74), maintaining a conversation is an effortful process in which second language learners in particular sometimes lack the linguistic resources to make them understood and to understand what is being said. Researchers investigated this phenomenon and found that learners make use of various communication strategies in

order to carry on with conversations amidst their non-understanding. Nunan (2003: 58) names the following communication strategies: paraphrasing sentences, borrowing words from other languages, inventing new words, using gestures, asking for feedback and simplifying. Ellis (2003: 74) also lists a number of communication strategies that are frequently used by learners. According to Ellis (2003: 70), these communication strategies can also be found in the discourse work that forms part of the negotiation of meaning process. Skehan (1998: 20) suggests that these strategies, also referred to as *conversational moves*, may include comprehension checks, clarification requests, confirmation checks and recasts. Learners employ these strategies when they do not have the support of an interlocutor to help them resolve a problem or when they lack the linguistic knowledge or resources to communicate meaning. This is why Ellis (2003: 74) states that these strategies are compensatory in nature.

In discussing comprehension and production strategies, Skehan (1998: 27) supports this view of Ellis. He claims that any normal communication situation is accompanied by processing pressures because of it happening in *real-time*. He notes that learners rely on strategies such as time-creating devices, context prediction skills, elliptical language use, and a range of others to reduce the processing load of communication. These then work effectively at a considerable speed of processing which is ideal for real-time communication in which there is limited time to one's disposal.

Skehan warns that with the excessive use of these strategies and as they grow older, learners get better at using them. This could result in fossilization, in which language users reach a stage where no more development and interlanguage change takes place. Edwards and Willis (2005: 228) state that in this comfort zone, second language speakers can converse in the target language, but only to a certain extent. This is usually the case when there is no external or internal motivation or need to better one's ability and competence. It is at this stage, where researchers suspect communication strategies has the illusive power to stand in the way of the language learning process. Because if you can hold a conversation, what is the need for trying to use more complex and accurate language structures or words to make yourself better understood?

According to Christine Goh (2005: 72), there is a way to use communication strategies to the learners' advantage. This is by making learners aware of how communication strategies can be employed to help them further their acquisition of the target language. Joan Rubin (2005: 37) proposes that in order for learners to become *expert learners*, they have to take control of their own learning process. This is put forward in a model called the Learner Self-Management model. Rubin explains that within this model, learners are encouraged to make use of five metacognitive strategies or procedures to recall knowledge and use it in different situations. These procedures include planning, monitoring, evaluating, problem-identification (or solving) and implementing. In short, Rubin theorizes that by using this model, learners will perform a task and *use* the allocated planning time to focus on meaning and form in order to accomplish their self-determined goals. They will then monitor their production and understanding in order to determine the source of problems that may occur. In the evaluation stage, learners will investigate the extent of their progress. Rubin postulates that once expert learners determine that certain goals have not been met, they would start to consider what could be done in order to reach those goals. This is done during the problem-identifying and problem-solving stage. Expert learners will then test their solutions by implementing their solutions to see if they result in better outcomes. In this way, learners can employ communication strategies with a frame of mind that they could aid them in solving problems that they encounter and reflect on the outcomes that they generate in order to promote their communicative effectiveness. In the following section of this chapter, a closer look is taken at the first of these metacognitive strategies, namely planning.

2.3 PLANNING

Task-based language researchers have been studying a number of variables to determine the effects that they have on second language performance. Some of these variables were previously mentioned in section 2.1.2.2 of this chapter. Ellis (2005: preface) points out that of these variables, planning was the only one that had produced relatively consistent effects on second language production. The implication of this is that teachers and task designers can more or less predict how a task will be performed

when planning is involved. According to Ellis's statement, planning therefore lends itself to pedagogical manipulation. In the following subsections, a closer look is taken at the three key concepts that are involved in language production, how they promote acquisition and how planning strengthens the possibilities thereof. This will lead to a discussion regarding acquisition and the connection it has with the three dimensions of production, namely fluency, accuracy and complexity. Then, in view of this, different types of planning and their potential to affect the three dimensions of production will be examined.

2.3.1 Three key concepts involved in production

According to Ellis (2005: 6), information-processing models form the leading approach to theorizing about language comprehension and production in cognitive psychology nowadays. These models seek to explain exactly *how* information is stored and retrieved. Ellis observes that even though they differ in many ways, they all view information processing as involving a) a form of input, b) the temporary storage of material that was attended to, c) the long-term storage of some of these materials and d) the use of different mechanisms for accessing these materials from long-term memory resources. Ellis (2005: 6) argues that this process draws on three central constructs involved in psycholinguistic accounts of language production, namely attention and noticing, a limited working memory capacity and focus-on-form. These concepts are closely related to the three stages of the human information-processing model that was discussed in section 2.2.1 of this chapter. The influence that planning has on each of these notions, will now be discussed briefly.

2.3.1.1 Attention and noticing

Regarding attention and noticing, Ellis (2005: 7) refers to Schmidt who hypothesized the importance of conscious attention – also known as noticing – in the language learning process. Ellis (2005: 7) advances the view of Schmidt (1990, 1994), who argues that deliberate and conscious attention is beneficial for learning as it can help learners

become aware of features of language that would not have been noticed otherwise. The connection that noticing has with planning is an implicit one. According to Ellis (2005: 7), this is because much of the debate on the subject of noticing concerns its role in input processing and so it may seem to have little to do with how planning assists in the language acquisition process. In addition to this, Ellis (2005: 7) refers to a suggestion made by Ochs (1979), who stated that planning involves learners making use of their own explicit or implicit knowledge of the second language during production. In light of this, Ellis notes that the important question to be asked is not whether attention and noticing is needed for production, but for *output processing*. According to Swain's Output Hypothesis, discussed in section 2.1.3 of this chapter, it is indeed needed. She states that production requires learners to process syntactically, which includes bottom up processing and requires attention to form. According to Ellis (2005: 7), Robinson (2001b) agrees with Swain and claims that input- and output processing both require attention and noticing and that the degree of attention will depend on the complexity of the task that the learners are required to perform. Therefore, it can be concluded that when learners are provided with time to plan a task, they will be able to attend to and notice more aspects of the language, which would ultimately aid their performance.

2.3.1.2 Working memory

Many models have been created to explain the short-term or working memory system. Ellis (2005: 8) is of meaning that the most referred to model is that of Baddely. In his model, Baddely identifies three components of the working memory, namely the central executive or supervisory attentional system, the phonological loop and the visual spatial sketchpad. The first two of these components are applicable where planning is concerned. According to Baddely's model, the central executive system manages the relationship between the short-term memory and the long-term memory by directing attention to specific long-term memory systems. However, it is theorised that this system has a limited storage capacity, which influences the extent to which language learners can attend to specific systems. Research suggests that learners' attention will depend on which other operating systems are automatized. Ellis (2005: 8) gives the

example that if a learner uses up a lot of processing space at the same time as focussing on lexical searches, the attention that he or she will be able to pay to grammar will be limited. Ellis argues that the allocation of pre-task planning time or unpressured within-task planning opportunities will lessen the load on the working memory with a substantial amount. It is theorised that in turn, this would allow learners to engage in controlled processing and to process multiple systems linearly.

According to Baddely's model, the second component of the working memory, namely the phonological loop, is comprised of two subordinate parts. The first is a phonological store, which provides a temporary representation of material drawn from the input or the long-term memory. The second system is a mechanism that allows for articulatory rehearsal. This system enables weakened materials that were taken up by the working memory to become durable again. Ellis (2005: 8) argues that planning is likely to draw extensively on this component, seeing as it assists the learner in maintaining one set of material, while drawing on another set to modify or refine it. The phonological loop will therefore play a central role in self-monitoring one's performance. In conclusion, it is evident that planning does have the ability to facilitate the process of overcoming limitations within the working memory.

2.3.1.3 Focus-on-form

Focus-on-form has previously been discussed in section 2.1.4 of this paper. This section, however, specifically relates to the effects that planning could have on a learner attending to certain salient forms in the input. According to Ellis (2005: 9), researchers of second language acquisition argue that second language acquisition – especially in terms of adult learners – requires an explicit focus on form in the duration of their language learning process. Ellis claims that there are two reasons for this to be true. The first relates to humans having a limited working memory capacity, which makes it difficult to attend to meaning and form at the same time. Ellis explains that because learners often prioritise and choose to attend to meaning instead of form, they need to be persuaded to pay attention to the more formal aspects of the language as well. The

second proposed rationale is that interlanguage change can only take place if the learners attend to form whilst they are occupied with meaning. Ellis (2005: 9) refers to researchers Doughty and Williams (1998) who proposed that a *cognitive window period* exists, during which learners are able to hold material in their working memory and additionally attend to the form of what they have temporarily stored. Doughty (2001) adds that, what he termed *roving attention* enables learners to pay attention to form without interrupting their original speech plan. Thus, providing learners with the opportunity to plan a task beforehand establishes a means of achieving a focus-on-form pedagogically. Ellis (2005: 10) theorises that this will ease the limitations of their working memory in that it allows them time to attend to form while they are mainly concerned with conveying a message. It therefore creates a context in which learners have the chance to connect form onto meaning by accessing linguistic knowledge that has not yet been proceduralized.

To conclude this section, it can be assumed that in all three cases, planning has a strengthening effect on the acquisition process that either directly or indirectly resulted from production.

2.3.2 Acquisition and the three dimensions of language production

Following the conclusions relating to planning and the affect it has on production and language acquisition, this section serves to explain the positive effects that acquisition can have on the three dimensions of language production. According to Ellis (2005: 27), the term acquisition assumes that there is some change in a learner's second language knowledge representation. Ellis postulates that evidence for this change can be observed in four ways. The first concerns the learner's use of some previously unused linguistic forms. The second relates to an increase in the accuracy of some previously used linguistic forms. The third relates to the use of formerly used linguistic forms in new linguistic contexts as well as to carry out new linguistic functions. The fourth way to observe change in a learner's second language knowledge representation has to do with an increase in fluency, that is, the speed at which linguistic forms are

used during communication. These four observations are directly connected to the three dimensions of production that Skehan describes in his Cognition Hypothesis, namely fluency, accuracy and complexity. Skehan (1998: 59) states that fluency concerns the speed at which linguistic forms are used and therefore correlates with the fourth observation. Skehan (1998: 5) defines accuracy as a learner's attempts and ability to use language structures and lexical items according to the norms of the target language. Here, accuracy is connected to the second and third mentioned observations. Lastly, Skehan is of meaning that complexity concerns a learner's ability to employ their second language knowledge to produce creative and more difficult ways of expressing oneself in the target language. This correlates with the third observation.

Up until now, it has been argued that production leads to acquisition and that this acquisition is strengthened by affording learners planning time during the task cycle. The observable effects of acquisition have furthermore been related to the three dimensions of production as put forward in Skehan's Cognition Hypothesis. Next, the different types of planning and the effects that they have on the three dimensions of language production will be discussed.

2.3.3 Planning types

According to Ellis (2005: 3), all spoken and written language involves planning. He argues that planning is essentially a problem-solving activity in which a person has to decide which linguistic means are needed in order to reach a desired response or reaction. Research has shown that the implementation of planning in a task cycle can happen either before, or during the performance of a task. Accordingly, Ellis (2005: 3) distinguishes between two principle types of task-based planning, namely *pre-task* planning and *within-task* or *on-line* planning. These can each be further subdivided into two categories. Pre-task planning can be divided into *rehearsal* and *strategic* planning and within-task planning into *pressured-* or *unpressured* planning. In addition, Ellis (2005: 5) states that planning can also include a sub-category named unguided- and guided planning, in which learners are either left to themselves to plan a task or they are

guided in a sense that they are directed towards which form they have to attend to. Ellis claims that each of these planning types has the potential to elicit one or more of the three dimensions of language production and by doing so influence the quality and quantity of the learner's second language production. This notion along with further definitions of the various pre- and during-task planning types will be examined in the sections that follow.

2.3.3.1 Pre-task planning

As previously mentioned in the foregoing section of this chapter, pre-task planning can be divided into task rehearsal and strategic planning.

2.3.3.1.1 Task rehearsal

According to Ellis (2005: 18), task rehearsal, as the name states, provides learners with the opportunity to perform a task more than once. The repetition is viewed as preparation for subsequent performances outside of the classroom context. Ellis (2005: 18 – 19) points out that after many conducted studies, it was generally found that a learner's second performance of a task was accompanied by greater fluency and complexity. Ellis argues that this could be credited to learners being likely to focus on the message content of the task in the first rehearsal of it. Once learners have come to understand the message content and the basic language needed to encode it, they tend to switch their attention to the selection and monitoring of appropriate language use. This observation of Ellis is supported by Edwards and Willis (2005: 222) who made the same observations after examining an experiment conducted by Foster and Skehan (1996). According to Ellis (2005: 19), an unquestionable advantage linked to task rehearsal is that it may provide learners the extra processing space needed to absorb the contending demands of fluency, accuracy and complexity. However, he also points out that the drawback in these studies is that no evidence has been supplied to suggest that the practice of one task assisted the performance of another task of the same type. In reference to statements made by Bygate and Samuda, Ellis (2005: 35) mentions that

task rehearsal is a useful pedagogic procedure because of the opportunities it affords learners in developing their second language discourse skills. It also gives the task what Ellis calls *situational authenticity* given that the rehearsal arises in natural communicative activities. What is important is that teachers find ways of implementing task rehearsal in class so that learners are kept motivated and do not lose interest in the task that is being repeated.

2.3.3.1.2 Strategic planning

According to Ellis (2005: 3), strategic planning involves learners taking into account the content related to the task that they are preparing to perform. Moreover, in this pre-task phase, learners will explore ways in which they will need to be able to express such content. Ellis (2005: 19) notes that studies regarding strategic planning have all found that it has an effect on all three dimensions of production, namely fluency, accuracy and complexity. Ellis (2005: 20 – 24) considered many of these research studies, and reached two conclusions. In the first instance, Ellis (2005: 23) concluded that strategic planning has a stronger effect on fluency and complexity than on accuracy. This implies that when learners plan, they are more likely to develop a conceptual plan of what they want to say, than formulating detailed linguistic plans. According to Ellis, studies confirmed that even when learners engage in focussed planning, they tend to use the allocated time to sequence ideas and work out semantic linkages between meanings. Ellis' second conclusion is that when learners have to choose which aspect of production to focus on, they would choose fluency and complexity at the expense of accuracy. If, on the other hand accuracy is chosen, it will be at the expense of fluency and complexity. Ellis (2005: 24), in conclusion, suggests that some evidence has shown that strategic planning has a greater effect on production if the task is cognitively demanding. The logic behind this is that when a task is easy, learners are able to perform it fluently using accurate and complex language without needing to plan. A more challenging task would theoretically have the opposite effect, causing learners to process meaning and form simultaneously before finally forming an appropriate response.

2.3.3.2 Within-task planning

As previously stated, this type of planning takes place during, as opposed to before the performance of a task.

2.3.3.2.1 Pressured and unpressured within-task planning

Ellis (2005: 4) maintains that on-line planning can be distinguished according to the extent to which the task performance is pressured or unpressured. This can be achieved by manipulating the time made available for learners to perform a task on-line. According to Ellis (2005: 167), careful or unpressured within-task planning allows the learner enough time to plan their performance and attend to expressions, form or content. On the other hand, pressured planning calls for learners to rapidly produce spoken texts and offers them little time to attend to content or meaning whilst performing the task. Ellis (2005: 4) also describes within-task planning types by referring to a statement made by Ochs (1979) who defined language that resulted from unpressured planning as *planned language* and language that resulted from pressured planning as *unplanned language*.

According to Ellis (2005: 167), studies suggest that the type of planning that will take place during within-task planning is determined by the extent to which on-line planning is pressured. He attributes this to the short-term memory system's limited capacity for storing information. Ellis explains that a person would need to prioritise some planning processes over others during pressured within-task planning. Alternatively, it is hypothesized that unpressured on-line planning will be less taxing on the working memory in that unpressured planning will provide the learner with sufficient time to plan and compute messages and utterances. Ellis (2005: 167) further states that during unpressured planning, learners will be better able to give attention to all of the activated processes – including those that were most likely to be ignored during pressured on-line planning. It is because of these reasons, that it is theorized that the nature of on-line or

within-task planning will affect the quality and quantity of the texts produced. Ellis (2005: 170) concludes that by increasing the opportunity for within task planning, learners would most likely speak more slowly, but also more fluently and accurately. This would be a result of them having more time to access their linguistic resources. Ellis adds that for the same reason, the increase of planning time will result in learners producing language that is more complex.

It is clear that planning, whether before or during the performance of a task, has the potential to have a significant effect on language production. For this reason, teachers should take note and implement both pre- and within-task planning as two mutually exclusive units that can be manipulated to increase fluency, accuracy and complexity in a learner's production of the second language.

Thus far, the task-based language teaching approach and several matters that comprise it have been examined. There has also been looked at the theorised processes involved in the learning and use of a language and the usefulness of planning as a method of developing a learner's interlanguage and production skills. The next section of this paper concerns developing language courses for specific purposes. This section of the paper will simultaneously serve as an extension and a narrowing down of what has been discussed in the foregoing sections of this chapter.

2.4 TEACHING LANGUAGE FOR SPECIFIC PURPOSES

This section of the paper aims to explore the ideas and purposes behind teaching a language course designed for specific purposes. A specific purposes course proves useful in many ways. According to Basturkmen (2006: 3), second language learners often need to acquire the language of a community in which they desire to enter. This community can be work-, academic- or socially related. Basturkmen notes that a broad overview of the target language would certainly help these learners in their quest, but that they would still lack the ability to form fully part of the target group community. In reference to studies conducted by Swales (1990), Basturkmen (2006: 4) points out that

a specific purposes course is designed with the intention of focussing learners' attention on authentic texts that are used in the target discourse community. Basturkmen (2006: 9) further explains that these texts or *genres* are representative of the typical forms of communication that are used in the target language. Understanding these genres will lead to learners being more adept to interact with those who are already members of a specific community. Basturkmen (2006: 9) notes that an additional advantage of language courses designed for specific purposes is that these courses have the ability to cover relevant parts of the language in the most time- and energy efficient way possible. However, before being able to teach a specific purposes course, it is necessary to fully understand the elements that comprise and influence it. To do this, Basturkmen developed a framework for analysing language for specific purposes (LSP). By using this framework, one is able to analyse, compare and research various LSP projects. Before taking a closer look at this framework, it is necessary to discuss two important matters that inform LSP course design and teaching.

2.4.1 Issues in LSP teaching

Basturkmen (2006: 17 – 20; 25 – 26) maintains that there are two matters that need to be taken into account when designing a LSP course. The first matter considered a vital factor in developing a language course focused on specific purposes, is that of conducting a *needs analysis*. This concerns incorporating learners into the process of developing a syllabus in that they are requested to notify teachers and course designers of what they need to be able to do in the target language. Basturkmen (2006: 18) postulates that if the LSP syllabus is based on the needs of the learners, it acts as a motivational factor in their learning process. In this way, learners are able to see the relevance of what they are taught. Moreover, because of the time constraints characteristically linked to LSP courses, it seems only sensible to design a course according to the essential parts of the language that learners would specifically need to know. However, this method of course design has not gone without criticism. Basturkmen (2006: 19 – 20) makes note of some of these criticisms which concern the unpredictable nature of language, learners lacking the metalanguage to be able to

describe exactly what they need to know, institutions predefining what they want and many more. These, however, do not surpass the usefulness of *trying* to develop a syllabus according to the needs of the learners at whom it is aimed.

The second matter that Basturkmen (2006: 25) considers a necessary factor in the development of a LSP course is that of deciding whether a course should be narrow-, or wide-angled. She states that course developers are repeatedly faced with the fact that groups consist of learners with different levels of proficiency and needs. An example of such a group may be a group of medical students, which include nurses, doctors, medical technicians and others. The question arises whether one should divide these learners up into their subdisciplines to teach a language specific course, or whether a language course for general purposes giving the group a general knowledge of the language should be developed. In providing a solution to this predicament, Basturkmen (2006: 25) refers to Dudley-Evans and St. John (1998), who stated that a narrow-angled course would be best suited for a group with specific and limited needs where one can focus the attention on a few target features and contents of one discipline. They continue and state that a wide-angled course would be best suited for people with general needs. This course can then focus on target features and topics from different, but more or less related, disciplines.

Keeping these matters in mind, Basturkmen's framework, which can be used for the analysis of LSP ideas and options, will now be examined.

2.4.2 A framework for the analysis of ideas and options in LSP

According to Basturkmen (2006: 9), the foundation of a language for specific purposes approach is based on ideas regarding the nature of language, learning and teaching. As put forward in Basturkmen (2006: 12 - 13), this approach to language learning will be examined by using the frameworks of Stern (1983, 1992) as well as Richards and Rodgers (1986). Stern proposed a general conceptual framework for language teaching that consisted of four concepts namely, language, learning, teaching and context.

According to Basturkmen (2006: 12), these have been called the basic building blocks for language teaching. Stern argues that language teaching primarily requires a perception of the nature of language. This concerns the knowledge of systems that are active in a language as well as the various uses of the language. Stern notes that language teaching secondly involves a view of the learner and the nature of language learning. This relates to the conditions under which language learning is believed to take place as well as the processes that are involved in the language learning process. The third building block of Stern's general conceptual framework for language teaching involves a view of language teaching. This concerns specifying the role of a teacher and a clear description of what teaching entails. This relates to teaching methodologies as well as the objectives of teaching. Lastly, Stern argues that language teaching involves a view of the context in which teaching is set to take place.

Concerning Richards and Rodgers' framework, Basturkmen (2006: 13) identifies two main components that can be associated with an approach to analysing language for specific courses. The first concerns a theory regarding the nature of language and the second, a theory on the nature of language learning. According to Basturkmen (2006: 13), in this framework, the last mentioned accounts for the psycholinguistic and cognitive processes involved in language learning as well as the conditions that allow for successful use of these processes. In order to have a clear understanding of what comprises a language for specific purposes approach, a combination of these two frameworks will be discussed in the sections below.

2.4.2.1 The nature of language in LSP

In this section of the paper, we will be discussing the various theories regarding language systems as well as the uses of language that relates to the nature of language in language for specific purposes.

2.4.2.1.1 Language systems

According to Basturkmen (2006: 35), LSP teaching often uses the analysis and descriptions of language systems as a starting point. In reference to a definition given by Harper (1987), Basturkmen defines language systems as a set of abstract structures recognizable by all speakers and hearers, which is a requirement for the efficient use of language. Three existing language systems, namely grammatical structures, core vocabulary and patterns of text organization, will subsequently be discussed.

2.4.2.1.1.1 Grammatical structures and core vocabulary

According to Basturkmen (2006: 35), the concepts of grammatical structures and core vocabulary have for a long time formed part of second language instruction and that second language teaching is based on traditional ideas regarding these concepts. Basturkmen notes that one of these ideas is that in second language teaching, there must be a focus on some basic sentence-level grammatical structures such as verb clauses and noun phrases. This should be accompanied by a focus on core vocabulary that serves as a foundation for future language use.

Last mentioned could bring up the discussion of whether specific-purpose language is based on, and extends from a basic core of general language or that all language exists as one variety and that there is no basic core of language. According to Basturkmen (2006: 15), the first perspective, which is referred to as the *common core plus*, proposes that there is a common core of language that is drawn on in all areas of life and work. Basturkmen (2006: 16) postulates that according to this view, there is no use in teaching someone a restricted language without having taught that person the basis of the language. Basturkmen (2006: 17) notes that the second perspective goes against the last mentioned view of language and claims that all languages are learnt in different contexts and that no overlapping occurs between languages. For this reason, this perspective is referred to as *All Language is Specific Purpose*. From this perspective, it is proposed that learning from a specific selection of language would be more effective,

seeing as learners acquire language structures in relation to the meanings in which they are used in their academic, workplace or professional environments.

2.4.2.1.1.2 Patterns of text organization

According to Basturkmen (2006: 38), the third language system that language for specific purposes considers a prerequisite for language use is *patterns of text organization*. This refers to the structures that underlie written or spoken texts. Basturkmen (2006: 38) postulates that with sufficient knowledge of these structures, learners are able to make sense of the different situations in which they find themselves. To authenticate this notion, Basturkmen refers to a statement made by Schollon and Schollon (1995), who stated that language is naturally ambiguous and that a person decodes a text according to its external- and internal ambiguity. These respectively refer to the context in which meaning is to be interpreted and the ways in which sections of a text relate to each other.

Basturkmen (2006: 38) notes that early research into external ambiguity lead to the notions of schemata and scripts, which are formed by people's experiences in life. Schemata refer to knowledge that people have of certain types of events, such as eating out. Scripts refer to the knowledge that people have of these events and how they would typically progress. As Basturkmen (2006: 38) explains, the word "waiter" could act as a trigger to activate a learner's pre-existing knowledge of the situation. Making use of a situation's external ambiguity would help the learner interpret the text and participate in the discourse of it.

The second manner in which learners can decode a text or communicative situation is through its internal ambiguity. Basturkmen (2006: 28) argues that there exists a general set of patterns of text organization that have been labelled macro structures, clause relations, basic text structures, culturally popular patterns and more. People who adopt this view of how one deals with vagueness or uncertainty in language, argue that one interprets the second part of an example text by referring to their own knowledge of

persistent patterns of organization in texts. According to Basturkmen (2006: 39), these patterns of text organization highlight what are assumed core features of language. In order to interpret a text, the listener would track the connections between the parts and rely on his or her knowledge of the ways that parts - for instance clauses, sentences and longer segments - are typically organized in texts. A second sentence would therefore be understood because of the event that was interpreted in the first sentence. Basturkmen (2006: 39) records a number of patterns frequently noticed in English, which include patterns of "cause-result", "situation-problem-situation-evaluation", "goal-achievement", "gap in knowledge-filling", and more.

2.4.2.1.2 Language uses

This section aims to describe the underlying principles related to language use as well as functional explanations of language. The descriptions of language use will refer to the communicative purposes that people wish to achieve. Functional explanations of language are described as efforts to locate sources outside the linguistic system that determine how language is organized. According to Basturkmen (2006: 47), a practical view of language can be seen in different types of linguistic enquiry in language for specific purposes. These include descriptions of speech acts, genres and social interaction formulas used in professional, workplace or academic environments. Basturkmen states that it is also evident in attempts made to identify how words are used in certain disciplines to express discipline-specific concepts.

2.4.2.1.2.1 Speech acts

According to Basturkmen (2006: 47), in LSP instruction and research, one would typically find different classifications of speech acts (also referred to as "functions") that surface in the target environment. Basturkmen (2006: 48) argues that speech act descriptions relate to the communicative intentions of individual speakers. She adds that they are furthermore defined by the reason for which the speaker uses the language, such as making a request or apologizing. By looking at the common patterns

and regularities that are found in language for medical purposes, one would examine interactions between medical personnel and patients at the hospital. From this, one would be able to identify speech acts that frequently occur in this environment.

Basturkmen (2006: 51) argues that the knowledge of speech acts has proven to be a vital element in courses designed for specific purposes, seeing as research has shown that regardless of high levels of grammatical competence, non-native speakers may still experience difficulty communicating because of their lack of ability to express speech acts properly. Basturkmen proposes that this could be because of the fact that learners transfer speech act realizations or strategies from their first language to the target language or that they have misconceptions about the target language.

2.4.2.1.2.2 Genres

Basturkmen (2006: 53) states that genres differ from speech acts in one principle way, whereas speech act categories are understood to be universal, the functions of groups and communities, that is genres, are highly specific. Basturkmen (2006: 52) refers to Allison (1999) who stated that a genre is understood to be a class of language use and communication that occurs in particular groups or communities. The medical community, for example, has a genre named "case history" and teachers have one named "end-of-year report". In reference to a statement made by Dudley-Evans (1994), Basturkmen (2006: 53) argues that the defining feature that sets one genre apart from another is its communicative purpose. Genres are also seen as being collective and socially derived and labelled by the community from which it develops. Speech acts, on the other hand, stem from an individual's attempt to achieve his or her communicative purpose. Basturkmen (2006: 55) however notes that a genre-based perspective on language does not mean that the functions are fixed or static features of the language. Individuals can challenge these rules, which would cause them to change gradually over time.

Basturkmen maintains that genre-based teaching is often best suited for classes of LSP students with very similar needs who are all targeting similar workplaces or the same academic discipline. Basturkmen (2006: 58) states that the core of genre-based LSP *teaching* concerns the identification of the genres that students will use in the target situation, as well as providing learners with assistance in deconstructing these genres. This would aid in them understanding how genres are structured, how the structure relates to the communicative purposes of the target group, what content the genres contain as well as the linguistic devices and language uses that typically arises in them. According to Basturkmen (2006: 59), the methodology best suited for teaching such an approach is to aim to clarify, but not prescribe genre-features. Patterns should also be identified, but not imposed upon learners. Basturkmen concludes by stating that teachers should remember that a genre-based description focuses on the overall communicative purpose and that a genre is defined and interpreted in relation to this purpose.

2.4.2.2 The nature of learning in LSP

In Basturkmen's proposed framework for the analysis of ideas and options in LSP, the nature of learning concerns the conditions under which language learning takes place as well as the various processes that are involved in the language learning process. Basturkmen (2006: 85) argues that the learning conditions and learning processes involved in language learning can each be connected to two theories. The theories related to language conditions are that of acculturation and of input and interaction. Theories associated with language processing include information processing and the activity theory. The following section will examine the above-mentioned theories, and how they relate to the conditions needed for language learning.

2.4.2.2.1 Learning conditions

The following two sections will examine the theories related to the nature of learning conditions. The first section will be concerned with the social interactions that lead to

language learning and the second section is concerned with the linguistic accounts for language learning.

2.4.2.2.1.1 Acculturation

Basturkmen (2006: 85) notes that in LSP courses, the first condition needed for language learning is called acculturation. This is based on social considerations that LSP learners need to be in close social proximity or contact with their target discourse communities. Basturkmen states that by being in contact with the target language, learners stand the chance of becoming socially and psychologically integrated into their target discourse communities. Basturkmen (2006: 86) also refers to a study conducted by Schumann (1986) in which was found that the degree to which a learner acculturates to the target language group has a substantial and controlling effect on the degree to which the learner acquires the second or target language. Thus, within a theory of acculturation, teaching strategies should be aimed at reducing the social and psychological distance between the learner and the target community.

In applying this theoretical notion, Basturkmen (2006: 88) questions whether it is enough for LSP courses to familiarize learners with such learning practices *from the outside* with the idea of then imitating them in practise; or whether learners should integrate with target communities. In reference to a statement made by Benson (1994), Basturkmen (2006: 88) notes that learners need to discover the structures, values, norms and procedures of the target culture. These may prove to be different from that of the learner's first language. Basturkmen refers to Wharton (1999) who identified three models of acculturation in relation to such genre-based approach notions in LSP courses. The first model of acculturation, *Induction*, proposes that second language learners take a LSP course prior to experiencing and participating in a target community. Basturkmen notes that according to this model, learners will be exposed to the genres of a specific community as well as the cultural practices associated with them. The second model that Wharton puts forth is the *Adjunct* model of acculturation. In this model, learners simultaneously participate in target environments and take LSP courses. The

LSP course now serves as assistance in understanding the genres that learners encounter in the target community. Basturkmen (2006: 88) proposes that this will raise learners' metacognition of the genres and inform them of the cultural values connected to the genres. The last model of acculturation is that of Apprenticeship of Mentoring. In this model, learners learn mainly thorough first hand experience in the target community. Basturkmen (2006: 89) notes that in this model of acculturation, LSP courses serve the purpose of merely providing linguistic assistance and support. It is clear that these models have the common aim of narrowing social proximity between the learner and the target community and that their sole difference is the extent to which learners are exposed to the target community.

2.4.2.2.1.2 Input and interaction

The second idea put forward by Basturkmen (2006: 90) on how LSP courses aim to provide helpful conditions for language learning to take place, is based on linguistic considerations and rests on the argument that a provision of sufficient linguistic input and opportunities for interaction is prerequisites for language learning. To promote input and interaction, LSP courses attempt to create linguistic environments where learners are presented with sufficient quantities of input by exposing them to the target language and then providing them with the opportunity to interact with it.

According to Basturkmen (2006: 91), the theoretical considerations that support this view of language learning originated from Long's Interaction Hypothesis. Basturkmen states that in accordance to Long's Hypothesis, there are five principles that inform LSP regarding the conditions under which language learning takes place. The first is that learners can only learn what they are ready to learn. The second claim is that linguistic input is necessary for learning. Thirdly, it states that learners negotiate the meaning of input to make it more comprehensible for themselves. In accordance to this, the fourth point states that through the negotiation of meaning, input becomes increasingly useful because it is targeted to the specific development level of the individual learner. Lastly, it claims that if the negotiated input suits the needs of the individual, it will become

intake. Basturkmen (2006: 91) further argues that the level of attention paid on the learner's behalf will lead to the noticing of salient features in the target language. Moreover, Basturkmen refers to Schmidt (1994) who argues that more noticing will lead to more learning. Therefore, teaching considerations regarding input and interaction in LSP courses should involve providing learners with sufficient exposure to the language use of the target discourse community. Basturkmen also maintains that teachers should make learners aware of important language features such as forms and patterns in order to promote learners' noticing of these features.

2.4.2.2.2 Learning processes

In relation to the previous work regarding LSP, Basturkmen (2006: 97) notes that learning does not purely occur because of learners enjoying the favourable conditions in which their learning takes place. She states that learning also occurs because of learners engaging in cognitive processes and mental activities. Basturkmen divides the perspectives that relates to such learning processes and activities into two explanations, namely the *intermental*- and the *intramental* explanation. The *intermental* explanation describes language learning on account of the cognitive processes of the individual learner and the *intramental* explanation describes language learning as the result of the learner's social activity. According to Basturkmen (2006: 97), these two perspectives correlate with two theories regarding language-learning processes, namely information processing and the activity theory. These account for the cognitive and mental processes that take place during language learning.

2.4.2.2.2.1 Information-processing

This processing model has previously been mentioned in section 2.2.1 of this chapter. In short, this model interprets language learning as a complex behaviour comprised of simple processes. Basturkmen (2006: 97) maintains that these processes take time and practice and that through practice, these processes develop from being controlled and taking up a lot of cognitive capacity, to becoming automatized. This essentially

involves two types of memory, namely the working- or short-term memory and the long-term memory, and two stages of learning, namely controlled processing and automatization. According to Basturkmen (2006: 97), learners attend to a short selection of simple bits of information in controlled processing. This information is then temporarily stored in the short-term memory. Basturkmen (2006: 98) further notes that automatization occurs as the information in the short-term memory is repeatedly activated through practice and consequently stored in the long-term memory. Basturkmen (2006: 98) maintains that from here, information can be easily accessed with minimal effort. She also states that when information is automatized, it frees up one's attentional memory so that new information can be processed.

2.4.2.2.2 Activity theory

The previous work in this section regarding the processes involved in language learning focussed on how the individual was responsible for his or her own learning. In this section, learning as a socially constructed process will be investigated. Basturkmen (2006: 105) notes that a socio-cultural theory, such as the activity theory, focuses on two central ideas relating to language learning. The first idea centralises around the fact that learning arises from and through social interaction. Here, learning is first seen as intermental (social) and then as intramental (individual). Basturkmen (2006: 105) argues that it is therefore a process comprised of two stages. She states that in the first stage, a learner would typically be presented with a task that he or she is unable to complete. The help from a skilful individual would then offer supportive dialogue, which most probably makes the task more understandable. The second stage now commences with the learner being able to complete the task alone. This process has previously been mentioned in section 2.1.3 and is often referred to as scaffolding.

Basturkmen (2006: 105) proposes that the second idea that makes up the activity theory is that learners actively construct their own learning environment. According to Basturkmen (2006: 105), researchers Mitchell and Myles (1998) noted that learners are not seen as passive recipients of input any more. In accordance to socio-cultural

theories, these researchers note that learners individually construct goals in unique ways and then carry out activities to reach these goals. The key to understanding the intramental learning process of learners is therefore to find out how individual learners decide to engage with a task. In relation to this, Basturkmen (2006: 106) suggests that the role of the teacher is to create learning opportunities for the students, to encourage them to participate and to surround them with language experiences that can become affordances through meaningful social interaction. Basturkmen (2006: 106) notes that this theory, which originated from the works of Leontiev (and was further developed by Van Lier (2002), challenges a notion of LSP that, even after a needs analysis has been conducted, learners will still be able to determine what they will learn.

2.4.2.3 The nature and objectives of teaching in ESP

Teaching any language course should be governed by certain aims and objectives. As will be evident in the sections that follow, this is especially true in the case of teaching a language course designed for specific purposes. According to Basturkmen (2006: 145), the focus of many LSP courses are based on different combinations of objectives. She maintains that this focus could be seen as a reflection of the outlook of the teachers, course designers and institutions involved. Next, four types of language education objectives developed by Stern will be discussed. Thereafter, five broad objectives regarding the teaching of LSP, which are informed by Stern's language objectives, will be discussed.

2.4.2.3.1 Stern's language education objectives

Basturkmen (2006: 133) describes four objectives put forward by Stern (1992) relating to classroom techniques and procedures used by teachers and LSP course designers. The first is called *proficiency* objectives. Basturkmen (2006: 133) observes that these objectives relate to matters such as expertise and competency regarding the target language. It also refers to the mastering of skills such as reading, writing, listening and speaking. The second set of objectives is called *knowledge* objectives, which can be

further subdivided into linguistic- and cultural knowledge objectives. Basturkmen (2006: 133) notes that linguistic knowledge objectives involve an awareness of the various systems operating within a language. Cultural knowledge objectives refer to the aims of controlling socio-cultural rules that exist in a target discourse community. This includes becoming familiar with the norms of society and knowledge concerning values and orientations. It also involves the ability to recognise culturally significant facts, that is, knowing what is acceptable or not. The third set of Stern's language education objectives is called *affective* objectives. These objectives relate to the development of a positive feeling towards the subject that is to be studied. According to Basturkmen (2006: 133), it relates to attitudes that involve the reaching of second language competence, socio-cultural competence and language learning. The last set of objectives has been termed *transfer* objectives. These involve the ability to generalise and transfer concepts from that, which has been learned in the one situation to a different situation in the present.

2.4.2.3.2 Broad objectives in teaching ESP

Basturkmen (2006: 133) postulates that there are five broad objectives in teaching LSP. The first of these objectives state that LSP teaching should reveal subject-specific language use. Basturkmen (2006: 134) links this objective with the linguistic- and the cultural knowledge objective in Stern's categorization of language education objectives. Teaching in accordance to this objective aims to show how language is used in the target environment. In reference to a statement made by Wharton (1999), Basturkmen (2006: 134) points out that a drawback regarding acquisition as a result of such academic- and genre-based approaches, is that it has proven to be difficult for learners, seeing as they are required to not only develop a conceptual understanding of the surface discourse, but also of the social norms. As a conclusion, and by referring to a statement made by Swales (1985), Basturkmen (2006: 135) states that LSP teaching needs to do more than import and explain examples relating to the target community. She notes that the four remaining objectives in teaching LSP aim to do more than merely demonstrate subject-specific language use.

According to Basturkmen (2006: 135), the second objective of teaching in LSP stresses the importance of developing target performance competencies. She states that competency-based occupational education is an approach that focuses on developing a learner's ability to perform required activities expected by a specific profession and function to the standards that are expected of those who are already employed in that line of work. This approach relates to the proficiency objective according to Stern's classification of language education objectives. Basturkmen notes that teaching towards this objective displays how the target language functions. This concerns what people do with language and the skills they require to do it. Courses associated with competency-based objectives are primarily organised around core skills and competencies. These are then further subdivided into micro-skills and competencies that are more specific. Basturkmen (2006: 135) maintains that the link between needs analysis and teaching to develop target performance competencies is straightforward. By conducting a needs analysis, one can determine the demands and expectations of the target environment. LSP courses will then be set out to help students meet those demands to the level of competency that is expected from them. In a hypothetical situation, a medical practitioner needs to be able (competent) to ask questions to elicit personal medical history. This may then be set as the course objective so that at the end of the course, learners will be able to ask questions. Basturkmen (2006: 136) however observes that the difficulty in applying this notion is that only few occupations operate largely around highly regulated procedures and restricted language repertoire.

The third objective involves the teaching of underlying knowledge. Basturkmen (2006: 137) maintains that using a second language for work-related or study purposes require a knowledge and understanding of work-related and subject-specific concepts. In reference to Hutchinson and Waters' (1985) definition of *underlying knowledge*, Basturkmen notes that LSP teaching should focus on developing students' knowledge of disciplinary concepts as well the language skills that accompany them. According to Basturkmen (2006: 137), the objective of teaching underlying knowledge can be classified as a cultural objective, according to Stern's education objectives. She further notes that an underlying knowledge is essential for language learners to understand

what is often referred to as the "invisible discourse" operating in language. This refers to members of a community's way of thinking and frames of reference when producing and understanding the language. Therefore, a need to introduce learners to the target community's ways of thinking is accepted as an important part of professional education.

The fourth broad objective that Basturkmen (2006: 138) describes relates to the development of strategic competence. Regarding this objective, Basturkmen recounts a three-part model of specific-purpose language ability put forward by Douglas (2000), comprising of language knowledge, background knowledge and strategic competence. In it, Douglas (2000) claims that strategic competence operates as a mediator between the external situational context and the internal language background knowledge. Basturkmen notes that both the external situational context and the internal language background knowledge are needed to respond appropriately in a communicative situation. Basturkmen postulates that strategic competence can be seen as the link between the context of the situation and the language knowledge and furthermore as a means to enable language knowledge and content knowledge to be used in communication. Basturkmen (2006: 139) maintains that teaching oriented towards the development of strategic competence should aim to make use of the learner's existing knowledge of the target language and attempt to create sufficient opportunities for them to make use of this knowledge in the target language itself. Teaching according to this approach can be considered as having a linguistic knowledge objective in terms of Stern's categorization of education objectives.

The last objective regards fostering a critical awareness amongst second language learners. Basturkmen states that the abovementioned objectives are all connected to the specific goal of aiding learners in fitting into their academic, professional or workplace environments. Basturkmen (2006: 140) notes that the objective of fostering an critical awareness, however, aims to teach learners that the norms and beliefs of target communities are not set in stone – that they can in fact be challenged and changed. This critical approach to LSP, supported by researchers Hyland and Hamp-Lyons (2002) as well as Basturkmen and Elder (2004), questions the notion that LSP

teaching centralizes around teaching learners how to fit into the target language community. Basturkmen (2006: 141) postulates that teaching should rather aim to raise learners' critical awareness of the target language and discuss with students how the norms and communicative practices in the target environment have been established. She maintains that teaching should also aim to make learners aware of negative aspects of the community and provide them with ways in which they can attempt to change or modify these aspects when they find themselves in such a situation. Basturkmen (2006: 141) links this objective to the cultural knowledge and affective objectives categorized in Stern's classification of education objectives. To conclude this section, Basturkmen notes that this teaching objective may result in learners changing the way they feel about themselves and improving their perceptions of their status in relation to members of the target environments.

2.5 CONCLUSION

This chapter revealed a range of theories and perspectives regarding second language acquisition and teaching. The central concept, relevant to all segments of this chapter, was the task. This overview was shown to support the view of a task-based approach to language learning. In it, tasks are used as the central medium around which courses and lesson plans are designed. Although a single definition for the term *task* could not be found, it was established that a task constitutes a communication activity representing a real-world situation, in which the focus is primarily on meaning. Throughout the remainder of this chapter, it was evident that an explicit focus on language did not have a place in task-based language teaching. However, research confirmed that interlanguage development was not possible without some form of language focus. To overcome this hurdle, the task-based language approach to language learning supposed making use of focused or unfocused tasks. These tasks were designed to provide learners with the opportunity to focus-on-form without explicitly focussing their attention on it.

On the subject of developing and stretching a learner's interlanguage system, it was necessary to understand the processes involved in language learning and acquisition. For this reason, an information-processing model of language learning was discussed. Here, the emphasis was on various stages, namely the input management stage, the central processing stage and the production stage. This led to a discussion regarding the strengthening effects that planning has on production and language development. Planning proved to have the ability to influence the fluency, accuracy and complexity of a learner's language production. In light of this, it was suggested that teachers make more use of planning before and during the performance of a task.

In the last section of this chapter ideas and options, which concern teaching a language course designed for specific purposes, were investigated. These notions revealed the various elements that comprise this form of approach to language teaching. Here, it was shown that teachers needed to be aware of the nature of language, the nature of language learning and the nature of language teaching. In this way, teachers will be better equipped to develop their own courses aimed at teaching language for people aspiring to form part of a specific group or community.

CHAPTER THREE

AN ANALYSIS OF TASK COMPLEXITY OF AUTHENTIC DOCTOR-PATIENT CONSULTATIONS IN XHOSA

3.1 INTRODUCTION

In this chapter, an analysis is made of communicative tasks representing authentic doctor-patient conversations in Xhosa, compiled by a research assistant at the department of African Languages at Stellenbosch University in 2005. The purpose of the analysis is to determine what relationship exists between cognitive- and syntactic complexity. This is done in accordance to theoretical perspectives brought forward by Robinson (2005). In this paper, Robinson proposes that tasks should be sequenced according to an increase in complexity. He argues that by doing this, learners would undoubtedly be compelled to use various means of stretching and developing their interlanguage system to meet the increasing demands of the task. As a result, this development of the interlanguage system will be evident in a learner's use of more syntactically complex expressions. To determine what constitutes such complex expressions, the theoretical perspectives advanced in the article *Measuring Spoken Language: a Unit for All Reasons*, put together by Foster, Tonkyn and Wigglesworth (2000) will be used.

In order to fully comprehend the above-mentioned articles, this chapter will begin with a complete overview of both studies. Thereafter, twelve separate dialogues will be analysed accordingly. Each dialogue will be followed by a table containing relevant information regarding the cognitive and syntactic complexity of the content involved.

3.2 A SUMMARY OF ROBINSON'S THEORETICAL PERSPECTIVES ON COGNITIVE COMPLEXITY AND TASK SEQUENCING

Robinson (2005) conducted a study into the nature of Cognitive Complexity and Task Sequencing and set out to create a framework, which would ultimately aid language

teachers in the design and sequencing of tasks within a task-based approach to language teaching. Robinson (2005: 1) based his study on the Cognition Hypothesis, which claims that the increase in cognitive complexity should be a guiding factor when sequencing pedagogic tasks for learning purposes.

Robinson (2005: 4) distinguishes between two main dimensions of task complexity in his framework, namely resource-directing (developmental) and resource-dispersing (performative) dimensions. The former can be linked to the *development* of a learner's interlanguage repertoire, for when it is manipulated there will be an increase in the conceptual and linguistic demands that tasks make on communication. In effect, this will stimulate language development and force the learner to *extend* his/her second language repertoire. The latter can be manipulated to increase the demands made on learners to *access* their existing second language repertoire, therefore having a direct effect on their *performance*. Robinson (2005: 7) states that although sometimes manipulated separately, these dimensions are typically drawn upon simultaneously during *real world* situations.

With the emphasis on language development, and whilst contemplating which processes could be involved therein, Robinson examines Krashen's Comprehensible Input Hypothesis. Robinson (2005: 3) notes that according to Krashen (1985), a process of "unconscious acquisition" will be set in motion when learners are exposed to meaningful language input while performing a task. However, according to Robinson (2005: 3), Krashen does not consider language production or focus on form in his hypothesis. Thus, Robinson argues that an increase in the complexity of a task will inherently lead to learners noticing, processing and retaining more of the input received. He also states that the greater the amount of (more complex) interaction, the more the learners will be encouraged to gradually start analyzing more of the input and output that comprise an interactive task. In light of this view, Robinson maintains that both cognitive processing and interactive requirements make task-based language development possible – not just “unconscious acquisition”.

The theoretical basis for the Cognition Hypothesis that Robinson invokes for his study, lies in his twin claims about cognitive processing and interactive demands. Robinson (2005: 3) postulates that these claims make it possible for the Cognition Hypothesis to make three predictions regarding the information processing demands when increasing the complexity of a task. The first prediction states that learners will be “pushed” to achieve greater accuracy and complexity in their attempt to meet the, now more challenging, communicative demands of the task. Next, it will encourage interaction- and negotiation processes and by doing so enhance the attention, noticing and incorporation of forms made salient by the input. Lastly it claims that as tasks increase in complexity, individual differences (be it cognitive abilities such as working memory, or affective factors such as anxiety and self-confidence) will affect task-based learning and performance.

Robinson (2005:3) maintains that the objective when researching information processing demands and the effects they have on learning and performance is to develop a set of workable, task-sequencing criteria. As a step towards this, Robinson developed the *Triadic Componential Framework*. This framework serves as a tool to aid researchers in analyzing complex classroom learning situations according to three broad groups of complexity. Robinson (2005: 4) refers to the first group of complexity features as task- or intrinsic complexity features. This group includes cognitive factors such as whether the completion of a task requires single, dual or multiple steps. The second group of properties falls under task conditions. This includes interactional factors such as whether a task has a one-way or two-way flow of information. The last group falls under task difficulty properties, which includes learner factors such as a learner's perception of difficulty as well as affective responses such as anxiety. Robinson (2005: 4) stipulates that of these three groups, the main basis for proactive pedagogic task sequencing should be through the degree of difference in complexity.

In an effort to determine sequencing criteria according to the degree of complexity, Robinson (2005: 4 - 6) closely investigates the sub-categories of resource-directing (developmental) dimensions of task complexity. He found each of them to be linked to

the natural order of first language acquisition in children. He reports that various studies show that tasks, which differ on the here-and-now or there-and-then dimension, require learners to distinguish between the temporality of reference and to use distinct deictic expressions. Robinson (2005: 5) refers to Cromer (1974), who observed this in first language speakers as well. When investigating the second sub-category of resource-directing dimensions of task complexity, Robinson (2005: 5) noted that tasks containing elements of *reasoning*, will contain logical subordinations, such as *so*, *because*, *therefore*, and more. In the event of more complex causal reasoning, when the speaker needs to justify beliefs and support their interpretation of why events follow each other; psychological, cognitive state verbs (for example *know*, *believe*, *suppose*, *think*, and many more) will have to be used. This would subsequently lead to embedded clauses. Robinson (2005: 5) states that this phenomenon was observed in 1983 by Wellman and Silber and identified in 2002 by Lee and Rescorla when they researched first language acquisition. Another feature of resource-directing dimensions of task complexity that was seen in first language acquisition is the ability to navigate through, distinguish between and refer to complex spatial locations.

What Robinson (2005: 6) derived from these conclusions, is that increases in cognitive complexity along resource-directing dimensions, where the linguistic system will be needed to effectively complete the task, should represent a natural order for sequencing the conceptual and linguistic demands of L2 tasks. Moreover, seeing as adult L2 learners are cognitively preconditioned by their first language to build something from bottom up, for instance looking for the basic grammatical markings and then moving to something more challenging, they will ultimately benefit in the cognitive demands of tasks being sequenced from simple to more complex.

Robinson (2005: 7) noted that increasing complexity along the *resource-dispersing* (performative) dimensions does not require the direct use of the linguistic system and codes to meet the additional task demands as resource-directing dimensions do. Robinson (2005: 7) maintains that lessening the planning time, avoiding contexts that learners have prior knowledge of or increasing the number of tasks that they have to

perform simultaneously would merely spread out learners' attentional and memory resources. Thus, the manipulation of these dimensions purely serves to increase the learner's ability to access and deploy knowledge during the *performance* of a complex skill. According to Robinson (2005: 7), practice along these dimensions facilitates real-time *access* to and *control* of a learner's already developing language repertoire. In terms of the Dimensions of Complexity Model, Robinson (2005: 7) suggests that research-dispersing dimensions should be the first to be manipulated. In this way, learners are able to practice accessing their resources before they are expected to stretch them because of conceptual and linguistic demands caused by developmental dimensions.

In the last section of his paper, Robinson (2005: 8 - 10) examines the effects of task complexity along the above-mentioned dimensions. In short, he finds that increasing complexity along resource-directing dimensions could cause learners to try to incorporate the rising conceptual or functional requirements of tasks onto speech. As studies have shown, this could prove to affect fluency and accuracy negatively at first. On the other hand, however, this increase holds the possibility of facilitating the development of increased accuracy and complexity in the learner's production. In contrast, Robinson observes that increasing complexity along resource-dispersing dimensions could prove to affect the learner's accuracy, fluency and complexity negatively; seeing as the learner could find it difficult to access their current L2 repertoire.

To narrow down his investigation, Robinson (2005: 7) discusses two effects that task complexity can bring about. The first concerns the effect it has on the quality of the learner's language production. Regarding the effects on accuracy and syntactic complexity along resource-directing dimensions, Robinson (2005: 8) invokes separate statements made by Givon (1985) and Purdue (1993). They proclaimed that greater structural complexity will be accompanied by greater functional complexity in syntax and that acquisition will be pushed because of the discourse activity of communicative tasks. In reference to first language researchers such as Lindholm 1988: 67-68, Robinson

(2005: 8) notes that complex language constructions are learned at a later stage because they require much more attention and effort from the learner. He argues that this is similar to second language development and states that when the functional or cognitive demands of a communicative task are increased, the second language production will most probably be syntacticized. That would show that there is a shift from the pragmatic to the syntactic dimension of language learning. In effect, this will influence accuracy and fluency. However, to overcome this obstacle in learner production, Robinson (2005: 9) advances the view of Rohdenburg (2002), that more explicit grammatical (or lexico-grammatical) teaching is suitable - and perhaps much needed - when working in more cognitively complex environments, which are likely to result from complex oral task performances along the cognitive resource-directing dimensions.

Robinson (2005: 9) furthermore observes that by increasing the demands of a task, learners are made aware of the differences between their first language and the target language. He subsequently concludes that this has a positive effect on accuracy in the production of the second language. In support of his view, Robinson (2005: 9) refers to the work of Talmy (2000). According to extensive studies of cross-linguistic analysis of grammaticizable notions, Talmy distinguished between two universal subsystems of meaning-bearing forms in language, namely: *open-class lexical* subsystems, which include nouns, verbs and adjectives and *closed-class grammatical* subsystems, which include prepositions, determiners and verbal inflections. According to Talmy, the open-class subsystem contains a variety of words that can describe a wide range of concepts. The closed-class however is limited to a certain degree. When learners attempt to combine these classes – as they would be used in “real life” sentences – it is clear that there is a type of *overlap* when it comes to certain “rules” of the target language. This poses a problem when it comes to the learner constructing his/her own language repertoire.

According to Robinson (2005: 9), Talmy further argues that when learning a new language, learners are internally putting together a grammatical system that is true for

that language. With the language getting more complex, and *overlapping* (as explained above) taking place, learners often fail to associate or link certain grammatical structures together. Talmy notes that the result often leads to abandonment of the structure, thus breaking up the chain that binds the language system together. In retrospect of these hypotheses, Robinson (2005: 9) states that this is again an indication of how the manipulation of tasks can guide learners in a certain direction. He maintains that together with highlighting the differences in concept describing of the first language and second language, this can also lead to an increase in accuracy - especially grammaticalization.

According to Robinson (2005: 9), there lies a problem in determining which of the many linguistic schemes learners will choose from in order to perform effectively in a communicative situation. Research into the development of naturalistic second language acquisition by adult learners, aim to determine just that. Robinson (2005: 10) advances the view of Perdue (1993 a: 54 - 55) who illustrates this aspect with reference to the past tense and he poses the question of whether learners choose to use words such as *yesterday* or *last week*, or whether they use past tense markings on verbs. He remarks that if the learner knows how to express himself and the required function in his first language, he has to learn how to do that in the target language being acquired. Consequently task designers should recognize which of the many available structures the learner chooses (or will choose) first. Thereafter the learner's use of elementary devices should gradually be shifted to ones that are more complex. Robinson (2005: 10) furthermore points out that learners can be motivated to shift sooner from simple devices to ones that are more complex by using pedagogic intervention.

Robinson (2005: 10) makes note of Skehan (1998) who, on the other hand, states that accuracy and complexity are in constant competition for resources; and that the increase in task demands will degrade fluency, accuracy and complexity. Robinson agrees that this would be true when manipulation is done along resource-dispersing dimensions, for instance when planning time is taken away, when a learner possesses a low level of prior knowledge or when task switching occurs. Even so, he points out that

when manipulating task complexity along developmental dimensions, it only affects fluency in a negative way.

The second proposed effect that task complexity can lead to, according to Robinson (2005: 10) is on language *learning*. Thus far, the focus has been on “form-function mappings”. These mappings were optimized by the manipulation of resource-directing tasks to increase complexity. In this section, Robinson turns his attention to focus-on-form. He states that apart from tasks demanding the processing of meaningful semantic and conceptual communicative content, there is a definite need for some kind of focus on form – especially when increasing complexity.

Robinson (2005: 10) argues that with the increase in complexity, certain parts of the input become salient. He states that these, most probably, will be functions and structures that are new to the learner or perhaps combinations of different devices of the language. Robinson (2005: 11) suggests that a focus-on-form will facilitate the learner in *noticing* the input of complex tasks. This is mainly because these *complex* tasks require greater mental and communicative effort, deeper processing, greater attention and memory resource “mapping” of the input, than *simpler* tasks. However, other than his own studies, Robinson has not yet found any other second language acquisition findings to support his claims. In his own study, he found that the more complex an oral interactive task is, the greater the quantity of interaction and modified repetitions will take place.

3.3 THE ANALYSIS OF SPEECH UNIT (AS-UNIT)

According to Foster *et al.* (2000: 354), researchers of first and second language have in the past sought to measure the frequency of particular discourse features. These include confirmation checks, clarification requests, self-corrections as well as grammatical features such as morphemes marking number or case. They have also aimed to quantitatively measure the frequency as to which certain dimensions such as relative grammatical accuracy, syntactic complexity and fluency appears in the language

data. However, in order to measure such phenomena, researchers need to segment language data into smaller units. Advancing the view of Crookes (1990), Foster *et al* (2000: 354). refers to these segments as "base units". They argue that a major problem with these units is that researchers have thought up and put into words too many ways in which this measurement can be and has been done. Thus, there exists no continual guiding factor for other analysts to adapt in their own research.

Foster *et al.* (2000: 357) explain that for a unit to be permissible, it needs to be properly defined and used in many body of texts, all yielding a correlation of some sorts. Only then can it give assistance to language analysts to ascertain their analysis as reliable and valuable, which according to Crookes (1990) are the two basic criteria for any measuring instrument when segmenting a body of text into units and classifying those units. When a measure is termed reliable, it will give the same reading on the same item on different occasions. For the measure to be seen as valid, it will have to measure what is anticipated by the analyst.

With this consideration in mind, Foster *et al.* set out to devise their own, clearly defined unit called the Analysis of Speech Unit (AS-unit). They first examined the ways in which researchers previously approached and analyzed spoken language; identified the problems that were encountered and incorporated it all to form, as the title of this paper states, *a unit* for all reasons.

To start the investigation, one may ask why researchers did not simply divide texts into the individual sentences that comprise it. In his paper, *The Utterance, and other Basic Units for Second Language Discourse Analysis*, Graham Crookes (1990) supplies an answer to this question when he states that with the analysis of spoken texts, researchers defined the units used in terms of "written language" – that is, the sentence. However, Crookes goes on to state that during an oral conversation, participants do not always converse in what a sentence is considered to be. Oral texts can therefore not be divided up into different *sentences*.

In light of this, Crookes states that researchers have used language analysis to measure all kinds of phenomena and dimensions that appear in spoken language. For the assessment of productivity and complexity in spoken language data, researchers turned to young children's first language performance and evaluated the mean length of each speaker's utterance (e.g. Roger Brown 1973); others studied the mean number of sentences per turn (e.g. Crystal *et al.* 1976). However, Foster *et al.* (2000: 356) is not completely at ease with their findings and points out that cognitive maturity in older children (first or second language) cause that productivity and complexity cannot be measured in terms of performance alone. The reason being that with limited resources, these older children are able to apply certain communicative strategies such as paraphrases, gestures and filled pauses to help them structure lengthy uninterrupted turns. Additionally, in such cases the product mostly characterized a *lack* in complexity.

Foster *et al.* (2000: 355) state that as a response to the above-mentioned studies, other researchers such as Butterworth 1980, Chafe 1980 and Garman 1990 turned their attention to chunks of spoken language that appear within lengthy turns. They linked this with the mental processes that people use when producing, understanding and learning a language (psycholinguistics). Their interests were mostly directed at the planning process involved. According to Foster *et al.*, researchers noticed that both macro- and micro-planning processes were involved in the composing of speech. They also discovered that the more skilful speaker was the one who was able to keep track of the more complex, shorter, micro-planning units that bear resemblance to the clause or the sentence. Foster *et al.* (2000: 355) explain that by keeping track of these micro-planning units, the speaker will be aware of the syntactic requirements and constraints of the construction, which must be responded to. Subsequently, the speaker will be able to produce sentences that are more complex in a shorter amount of time. This in turn could lead to freeing working memory and enabling the speaker to activate communicative tasks. Assessing the performance would require that analysts record the relationship between fluency, accuracy and complexity within the micro-planning units.

According to Foster *et al.* (2000: 356) an area that has been looked into fairly recently is, that of how speakers draw on memorized sequences of language (e.g. Ellis 1996; Weinert 1995) in their production. Researchers aim to show that speakers do not construct sentences word by word, but rather by drawing on memory resources. Foster *et al.* (2000: 356) argue that although this is true in some instances; memorized sequences cannot merely be strung together to form complete and complex, meaning bearing sentences. They state that there would have to be some degree of syntactic proficiency by the speaker. Foster (in press) also points out that non-native speakers, when not under communicative pressure, rely more on word-by-word processing which leads to an increase in complexity, fluency and accuracy of their production of speech.

Foster *et al.* (2000: 357) further examined the different definitions of units given by researchers and found that it could be divided into three broad categories. The first of which includes mainly semantic units. These units are based on information or meaning chunks. However, they point out that using this definition may cause problems, seeing as the extent of an idea or argument is difficult to determine. The reliability thereof will almost certainly not be established. The use of semantic criteria will only be useful when used together with grammatical or intonational units.

Foster *et al.* (2000: 358) term the second group of speech units as Intonational units. They include tone units, idea units and the utterance. Except for each having a central focus of intonation, they also make use of *pausing* as a secondary feature. The problem herein lies in non-native speakers and the inaccuracy in their tone of speech and use of pausing. According to Foster *et al.* (2000: 359), pauses are often a result of message formulation or lexical search. As with the semantic units, the intonational unit criteria, as suggested by Loban (1976) and put forward in Foster *et al.* (2000: 359), is best used in assistance with other criteria – specifically, syntactic units.

Foster *et al.* (2000: 360) conclude that the criterion of the syntactic unit, which is the third broad group, promise great reliability and validity. This group includes the sentence, idea unit and the T-unit. With written and spoken language, the T-unit is most

popular. In one of his four definitions that researchers tend to use, Hunt (1966: 735) defined the T-unit as one main clause plus whatever subordinate clauses happen to be attached or embedded in it.

According to Foster *et al.* (2000: 360), Tarone (1985) criticized the T-unit by saying it was inadequate to analyze some of her language learners recorded and, at times, very dysfluent speech. The sentences were rarely complete and contained many repetitions and hesitation. To overcome these unplanned and incidental happenings in spoken language, Loban (1966) proposed a *communication unit* (C-unit). This unit includes *"grammatical independent predication(s) or... answers to questions which lack only the repetition of the question elements to satisfy the criterion of independent predication... 'Yes' can be admitted as a whole unit of communication when it is an answer to a question such as 'Have you ever been sick' "*(Loban 1966: 5-6).

The unit used by a researcher is often accompanied by examples of the data it has been used on. Foster *et al.* (2000: 361) illustrated some of these examples, but it seems as if researchers tend to cut some corners when it comes to analyzing spoken language. The T-unit cannot be applied as clear-cut to oral language as it can be to written language. The result is that researchers then tend to *leave out* problematic parts of the texts, which affects the reliability and validity of the overall findings. Crookes (2000) commented that in discourse analysis, researchers are confronted with the problem that oral texts for the most part differ from written texts in the way they should be approached.

Foster *et al.* (2000: 361) could not find a single example of data that has been analyzed according to the criteria of the C-unit. They however examined four features of spoken language that illustrate why the use of such a unit could prove difficult. Firstly, Foster *et al.* (2000: 363) looked at the adverbial clause "*because*"; the optional adverbial clauses introduced by it, as well as its function as a discourse marker. The question that they were left with was whether "*because clauses*" should be given independent status. Secondly, they investigated co-ordination. Criteria for the T-unit rule that coordinated

main clauses should be seen as separate units, but that coordinated verb phrases that share the same subject should be considered as one unit. However, according to the research done by Foster *et al.* (2000: 363), the presence of pause and intonation of the subsequent verb phrase would amount to a new start, regardless of subject. Topical noun phrases were the third feature to be examined. The results yielded that neither the T- or C-unit provided adequate answers as to how this phenomena should be dealt with. The last feature of spoken language that complicated the application of supra-clausal units was that of scaffolding and interruption. In interactive conversations, the participants actively take part in the building up of the conversation. Where one struggles, the other often helps with for example a word or phrase. According to Foster *et al.* (2000: 364), the problem now lies in assigning the unit.

Bearing this in mind, Foster *et al.* (2000: 365) comprised a unit of their own and termed it the AS-unit. They argue that this unit is clearly defined, explicit and exemplified; it is psycholinguistically valid and can be applied to a wide range of oral data. Foster *et al.* (2000: 365) argue that the AS-unit can be considered a suitable unit for the analysis of spoken texts for two main reasons. Firstly, they point out that studies (e.g. Raupach 1980 and Garman 1990) have shown that pausing in native-speaker speech indicate that syntactic units are in fact evidence of planning, seeing as pauses occur at syntactic unit boundaries as well as clause boundaries. Secondly, they suggest that a learner's ability to utter multi-clause units is a vital indication of the learner's proficiency as well as the level of complexity that occurs during the performance. Therefore, with the use of this definition, analysts are also able to analyze multi-clausal units and overcome obstacles that occur in, often unpredictable, oral language data.

Foster *et al.* (2000: 365) define the AS-unit as a single speaker's utterance that consists of an independent clause or sub-clausal unit, along with any subordinate clause(s) that could be linked with either. The AS-unit can for the most part be seen as a syntactic unit. It is however important to note that certain criteria of the semantic and intonational units were also drawn upon to deal with tricky situations. Subsequently, a brief

explanation of each of the features of the AS-unit and the obstacles within each of them will be discussed (for oral examples, see Foster *et al.* 2000: 365 – 371).

The independent clause is also known as the main clause. It contains the main idea of the utterance. Within the AS-unit, it will consist minimally of a clause containing a finite verb that is directly linked to the subject. Since an independent clause is syntactically able to stand on its own, it makes sense that it is seen as a unit. Unlike the T-unit earlier described, Foster *et al.* (2000: 366) included independent sub-clausal units in their definition of the AS-unit, seeing as it appears frequently in spoken language.

Criteria for the AS-unit defines the independent sub-clausal unit as one which consist of either one or more phrases which can be elaborated to a full clause by means of recovery of ellipited elements from the context of the discourse or situation. Foster *et al.* (2000: 366) state that the independent sub-clausal unit can also contain a minor utterance, which falls under "Irregular sentences" or, as Quirk *et al.* (1985) termed it, "nonsentences".

Since subordination in spoken language is used as a measure of complexity, it is vital to clearly define what constitutes a subordinate clause (Crookes 1989; Foster and Skehan 1996; Wigglesworth 1997). The subordinate clause is also commonly known as the dependent clause, relying on the main (independent) clause for its meaning. Within the AS-unit, it will consist minimally of a finite or non-finite verb element plus at least one other clause element (subject, object, complement or adverbial). However clear it may seem, Foster *et al.* (2000: 367) point out that this definition holds many difficulties, for instance the determining of the difference between a non-finite clause and a noun phrase. Clause coordination and subordination also require more investigation. As mentioned earlier, a subsequent verb phrase (even with the subject left out) constitutes a fresh start for the speaker. To overcome this hurdle, Foster *et al.* (2000:367) identified conditions for where unit boundaries lie. They suggest that in cases where coordination of verb phrases occur, the coordinated phrases will belong to the same AS-unit, unless

the first phrase is marked by falling or raising intonation and is followed by a pause of at least 0.5 seconds.

Regarding the AS-unit, Foster *et al.* (2000: 367) claim that certain roles/functions can be fulfilled by subordinate clauses within the AS-unit. These roles include the realization of the initial or postponed subject, the inclusion of a verb complementation and it can act as a phrasal post-modifier or complement. In certain circumstances, the subordinate clause can act as an adverbial function. The condition for these adverbial clauses to be included in the foregoing AS-unit is that the final adverbial clause has to be in the same tone unit as at least one of the preceding clause elements of the AS-unit. Foster *et al.* (2000: 367) note that because of this, the adverbial clause will be seen as linked to the initial main clause.

To end off their definition, Foster *et al.* (2000: 368) looked at other phenomena that may occur during speech and explain how analysts should manage them. With false starts, they suggest that if the utterance follows on an already started AS-unit, the part that still meets the criteria of the AS-unit should still be counted and the rest disregarded. Repetitions can often be employed by the speaker as a strategy to hold the floor or to acquire some planning time. It could, on the other hand also indicate dysfluency. Self-corrections can play a role here. When a speaker realizes a mistake, words can be corrected and repeated to ascertain the accuracy of the word or phrase. The self-corrected, final version of the utterance will subsequently be taken as an AS-unit, and the previous part will be disregarded.

Foster *et al.* (2000: 368) took into consideration the fact that certain analysts aim to measure different things. Therefore, as part of the criteria of the AS-unit, they set out three levels of application where analysts can cut out certain parts of the text, without resulting in their work being compromised. Level one is when the AS-unit is applied to the whole body of the text. Level two is specifically to consider highly interactional data. Here, one-word minor utterances can be left out as well as word for word, precise echo responses. Level three is where researchers want to narrow the text down to relatively

"completed" units in order to estimate a speaker's level of proficiency and to see what *can* be done in the production of such a unit. This level excludes the same elements as in level two and will exclude verb-less elliptical AS-units as well as AS-units that involve the substitution of clause, predicate or prediction level. Lastly, this level can leave out one or two word greetings and closures. It is clear to see that this level introduces a great level of standardization of the unit.

3.4 MACRO GENERIC MOVES

The Xhosa dialogues analysed below will all be divided into the macro generic moves of which they comprise. The macro generic moves that are evident in the dialogues to be analysed, can be characterised into the following broad phases of macro generic moves described below.

i. The Introductory Phase

This phase is characterised by the acts of exchanging pleasantries and the supply of personal details when a patient reports at the nurse's desk or at the start of a consultation.

ii. The Diagnostic Phase of Questioning, Instructing and Explaining

This broad phase can be subdivided into the following sub-phases:

- a. the Pre-examination phase
- b. the During examination phase and
- c. the Post-examination (prognosis) phase

These phases constitute the part of the consultation that exists between the doctor and the patient. Here, the doctor has to identify the problem and make an appropriate prognosis. He typically starts by asking questions to find out what events lead up to the problem. It should be noted that yet another phase could appear in this subdivision, namely the Narrative Phase. This phase occurs when a patient gives account of his or her medical history. The narrative phase is always told in the *past tense*. Following this, the doctor physically examines the patient. While doing this, the doctor gives explicit

instructions that the patient has to adhere to. Finally, the doctor concludes what the problem might be and makes a prognosis. This phase would typically include a discussion regarding the prognosis as well as instructions relating to what needs to happen next.

iii. The Directive Phase

This phase will contain specific instructions regarding future procedures as well as the patient's medication and directions aimed at the use thereof. It also includes the doctor directing the patient where to go to after the consultation, be it to the nurse's desk, pharmacy or to the X-ray theatre.

3.5 DIALOGUE 1:

Dialogue 1 is a communication task relating to a patient who injured her hand in the previous week. She is now experiencing pain in the hand that has a cast on it. The aim of this consultation is that the doctor examines the hand to discover the cause of the patient's discomfort.

Introductory phase

1. D: Molo, kunjani? [Greeting]
Hello, how are you?
2. P: Andiziva mhandi. [Response to greeting]
I am not feeling well.

Cognitive complexity:

The pleasantries expressed in the segment comprising of sentences [1] and [2] are expressed in the present tense, thus denoting the [+ here-and-now] feature of Robinson's developmental complexity. These sentences, furthermore, contain no form of causal reasoning or locative expressions, which respectively exemplifies the [+ no

reasoning] and [+ few elements] features of developmental complexity. This segment therefore exhibits a low level of developmental complexity.

This segment further exhibits a low level of performative complexity since the single task of greeting the patient is standard and requires no planning on the doctor's behalf, hence it denotes the [+ single task], [+ prior knowledge] and [+ planning] features of performative complexity. Therefore, this segment displays properties characteristic of the first dimension of Robinson's Dimensions of Complexity Model, which is associated with low developmental complexity and low performative complexity.

Syntactic complexity

In this segment of the dialogue sentences [1] and [2] are realised as simple (monoclausal) sentences. Therefore, according to Foster *et al's* Analysis of Speech Unit Model, this segment exemplifies a low level of syntactic complexity.

Pre-examination phase

3. D: Sinjani ngoku isandla sakho? [Enquiry regarding patient's hand]
How is your hand?
4. P: Asikabikho bhetele, kunzima ukusebenza emsebenzini. [Description of discomfort]
It is not yet better, it is difficult to do work at work.
5. D: Wenza msebenzi mni? [Enquiry concerning nature of work]
What kind of job are you doing?
6. P: Ndincedisa kumzi wokuchwela amaplanga. [Description of work]
I am assisting in the factory of cutting.
7. D: Wenzakela kule veki iphelileyo, kwashenxa amathambo esandla? [Statement as regards to injury in previous week]

You got injured this week that passed, when it shifted bones in the hand?

8. P: Ewe. [Affirmation]

Yes.

9. D: Ndibonise isandla, ndikuxilonge. [Request to see hand for examination]

Show me your hand for examination.

10. P: Kulungile. [Agreement]

Okay.

Cognitive complexity

The segment comprising of sentences 3 – 10 represents the pre-examination phase of the consultation. Except for sentence [4], these sentences are all expressed in the present tense denoting the [+ here-and-now] feature of developmental complexity. The reasoning demands of this segment are simple, as the sentences contain no logical subordinators to indicate causal reasoning. This denotes the [+ no reasoning] feature of developmental complexity. Several temporal and spatial locational references occur in this segment of the dialogue. A temporal reference, **kule veki iphelileyo**, occurs in sentence [7] and spatial references are evident in sentence [4], **emsebenzini**, and in sentence [6], **kumzi**. These elements denote the [- few elements] feature of developmental complexity. The features exhibited in this segment exemplify a low level of developmental complexity.

The segment further displays properties that exemplify a high level of performative complexity. During this segment of the consultation, the doctor is required to perform multiple tasks simultaneously. He has to listen to what is said, draw on his acquired knowledge, formulate more questions and reach a conclusion as to what has to happen next. In addition, these tasks have to be performed by the doctor in a limited amount of time. This segment therefore illustrates the following features of performative complexity, namely, [- single task], [+ prior knowledge] and [- planning]. With the developmental and performative features taken into account, it is evident that according

to Robinson's Dimensions of Complexity Model, this segment exhibits features characteristic of the second dimension of complexity, which is associated with low developmental complexity and high performative complexity.

Syntactic complexity

A notable increase in syntactic complexity is evident in the segment comprising of sentences 3 – 10. Sentences [3], [5], [8] and [10] are realised as simple (monoclausal) sentences. Sentences [4], [6], [7] and [9], however, exhibit a high level of syntactic complexity. Sentence [4] consists of three clauses, the main clause and an indicative mood clause complement of which the copulative, **kunzima**, takes an infinitival clause complement, occurring as **ukusebenza**. In sentence [6], the indicative main clause is followed by a possessive infinitival complement clause, **wokuchwela**. In sentence [7], the main clause verb **wenzakela** is expressed in the remote A-past tense and followed by a consecutive mood clause complement, **kwashenxa**. The subjunctive mood of the verb in the main clause of sentence [9], **ndibonise**, denotes a question being expressed. It is followed by a subjunctive mood complement clause, **ndikuxilonge**, to denote a purpose clause. According to Foster *et al's* Analysis of Speech Unit Model, this segment exhibits a high level of syntactic complexity.

Post-examination phase

11. D: Isamente oyifakiweyo isalungile. [Comment on plaster]
The plaster that was put on is still okay.
12. D: Akufunekanga uphathe izinto ezinzima. [Instruction not to carry heavy loads]
It is not needed that you carry heavy things.
13. D: Ungenza nje imisetyenzana elula, njengoku-ayina. [Recommendation to only do easy tasks]
You can just do small work that is easy, like ironing.
14. D. Ungazihlambi iimpahla. [Instruction not to do washing]

You may not wash clothes.

15. P: Kulungile. [Agreement]

Okay.

Cognitive complexity

The segment consisting of sentences 11 – 15 represents the post examination phase of the consultation. These sentences are all expressed in the present tense which denotes the [+ here-and-now] feature of developmental complexity. Logical reasoning, as opposed to causal reasoning, takes place in this segment and denotes the [+ no reasoning] feature of developmental complexity. This segment further contains neither temporal nor spatial referential expressions which exemplify the [+ few elements] feature of developmental complexity. The segment therefore demonstrates features exemplifying a low level of developmental complexity.

The segment further illustrates a high level of performative complexity in that the doctor has to perform multiple tasks simultaneously. These tasks include drawing on prior knowledge acquired, assessing the situation accordingly and formulating an appropriate diagnosis before communicating with the patient. These tasks denote the [- single tasks] feature of performative complexity. The professional expertise of the doctor exemplifies the [+ prior knowledge] feature of performative complexity. Only if the doctor invokes strategic planning methods, can he create some planning time to perform the tasks mentioned above. According to Robinson's Dimensions of Complexity Model, this segment exhibits features characteristic of the second dimension, which is associated with low developmental complexity and high performative complexity.

Syntactic complexity

In this segment, sentences [14] and [15] are realised as simple clauses. Sentences 11 – 13, however, are realised as complex clauses. Sentence [11] consists of two clauses, the main clause and an indicative mood complement clause. The main clause itself is complex as it realises the relative mood complement, **oyifakiweyo**. In sentence [12] the

negative verb of the main clause, **akufunekanga**, takes on a subjunctive mood complement **uphathe**. Sentence [13] consists of two clauses, the main clause, which itself contains a relative clause, **elula**, and an indicative mood complement clause introduced by the conjunction **njengoku**. According to Foster *et al's* Analysis of Speech Unit Model, this segment of the dialogue exemplifies a high level of syntactic complexity.

Directive phase

16. D: Ungagoduka ngoku. [Consent to go home]

You can go home now.

17. D: Uya kuphinda ubuye ngomhla wesihlanu ku-Agasti. [Instruction to return in August]

You must return again on the 5th of August.

18. P: Kulungile. [Agreement]

Okay.

19. P: Ungandenzela iphepha eliya kumqeshi wam. [Request to write letter to employer]

Can you write a letter to my employer?

20. D: Ewe, ndingayibhala. [Agreeing to request]

Yes, I can write it.

21. P: Kulungile, ndiyabulela. [Expression of appreciation]

Okay, thank you.

Cognitive complexity

The segment comprising of sentences 16 – 21 represents the directive phase of the consultation. These sentences are all expressed in the present tense denoting the [+ here-and-now] feature of developmental complexity in terms of Robinson's Dimensions

of Complexity Model. Complex causal reasoning does not occur in this segment which therefore exemplifies the [+ no reasoning] feature of developmental complexity. In sentence [17], a temporal referential expression, **ngomhla**, occurs and in sentence [19], a spatial expression **kumqeshi** occurs. These locatives denote the [- few elements] feature of developmental complexity. The features of this segment exemplify a low level of developmental complexity.

This segment further exhibits a low level of performative complexity. In this segment, the doctor is left with the single task of giving the patient appropriate directions. This exemplifies the [+ single task] feature of performative complexity in terms of Robinson's Dimensions of Complexity Model. His acquired knowledge because of his professional expertise aids him in recalling the standard instructions to be given and therefore does not require much planning on the doctor's behalf. This respectively illustrates the [+ prior knowledge] and [+ planning] features of performative complexity. According to the specific criteria provided in Robinson's Dimensions of Complexity Model, this phase is characteristic of the first dimension, which is associated with low developmental, and low performative complexity.

Syntactic complexity

In this segment, sentences [16], [18], [20] and [21] are realised as simple monoclausal sentences, hence low in syntactic complexity. Sentences [17] and [19], however, are realised as complex sentences. In sentence [17], the future tense indicative clause with the deficient verb –**phinda**, takes on a subjunctive mood complement, occurring as **ubuye**. Sentence [19] consists of two clauses, the main clause and a relative clause complement occurring as **eliya**. According to Foster *et al.*'s Analysis of Speech Unit Model, it is evident that this segment displays a high level of syntactic complexity.

3.5.1 Combined summary of analysis of dialogue 1

Phases	Developmental Complexity	Performative Complexity	Dimension	Syntactic complexity
1. Introductory phase	Low	Low	1	Low
2. Pre-examination phase	Low	High	2	High
3. During examination phase				
4. Post-examination phase	Low	High	2	High
5. Directive phase	Low	Low	1	High

3.6 DIALOGUE 2

Dialogue 2 is a communication task relating to a patient revisiting the doctor because of an ongoing medical problem concerning her knee.

Introductory phase

1. D: [1] Kunjani? [Greeting]
How are you?
2. P: [2] Ndiyazama. [Response to greeting]
I am trying.

Cognitive complexity

The segment comprising of sentences 1 – 2 represents the **introductory phase** of the consultation. The pleasantries exchanged in sentences [1] and [2] contain no form of causal reasoning or locative expressions, hence denoting the [+ no reasoning] and [+ few elements] features of developmental complexity. The segment has a further

property of [+ here-and-now] because of the sentences being expressed in the present tense. These features contribute to this segment exemplifying a low level of developmental complexity.

This segment further exhibits features that characterize a low level of performative complexity. In this segment the doctor has to perform the single task of greeting the patient, which denotes the [+ single task] feature of performative complexity. Furthermore, the pleasantries exchanged in sentences [1] and [2] are standard and therefore does not require much planning on the doctor's behalf, which exemplify the [+ prior knowledge] and [+ planning] features of performative complexity. According to Robinson's Dimensions of Complexity Model, this phase exemplifies properties characteristic of the first dimension of complexity, which is associated with low developmental complexity and low performative complexity.

Syntactic complexity

The pleasantries exchanged in sentences [1] and [2] are realised as simple (monoclausal) sentences. According to Foster *et al's* Analysis of Speech Unit Model, this segment exemplifies a low level of syntactic complexity.

Pre-examination phase

3. D: Yintoni ingxaki? [Enquiry about well being]
What is the problem?
4. P: Ndenziwa uqhaqho apha edolweni kulo nyaka uphelileyo ngoDisemba.
[Explanation of problem]
My knee was operated on last year December.
5. P: Ngoku libuhlungu, lidumbile, linawo namaqhakuva. [Description of current discomfort]
Now it hurts, it is swollen, and there are some small lumps developing.

Cognitive complexity

The dialogue segment comprising of sentences 3 – 5 represents the pre-examination phase of the consultation, entailing diagnostic questioning by the doctor. In this segment, sentence [4] is expressed in the past tense and sentences [3] and [5] are expressed in the present tense. The segment, therefore, exhibits the [+ here-and-now] feature of developmental complexity. Sentences [4] and [5] represent the narrative phase, where the patient gives an account of her medical history. Causal reasoning occurs in these sentences in that the patient explains, in sentence [5], the events that happened and concludes, in sentence [6], that it lead to the problems that she is experiencing now. This denotes the [- no reasoning] feature of developmental complexity. Furthermore two temporal referential expressions occur in sentence [5], which denotes the [- few elements] feature of developmental complexity. This segment, therefore, exemplifies a high level of developmental complexity.

This segment further exhibits a high level of performative complexity in that the doctor has to perform the dual task of listening and planning simultaneously. In addition, the patient's apparent quick response to questions leaves the doctor with little time for planning. The features that contribute to the high level of performative complexity are, therefore, [- single task] and [- planning]. The segment has a further property of [+ prior knowledge] because of the doctor's professional expertise. Therefore, according to Robinson's Dimension of Complexity Model, this phase exemplifies properties characteristic of the third dimension of complexity, which is associated with high developmental and low performative complexity on the doctor's behalf.

Syntactic Complexity

Sentences [3] and [4] are realised as simple (monoclausal) sentences. Sentence [5], however, is syntactically complex in that it consists of a main clause and two indicative mood complement clauses. The last indicative clause has an additional feature of an associative copulative adjunct phrase with preposition **-na-** in **linawo** and **na-** in **namaqhakuva**. According to Foster *et al's* Analysis of Speech Unit Model, this segment demonstrates a high level of syntactic complexity.

During examination phase

6. D: Nyusa ilokhwe ndilibone. [Instruction to pull up dress]
Please pull up your dress so I can see the knee.
7. P: Kulungile. [Agreement]
Okay.
8. D: Kwenzeke ntoni edolweni, engunobangela woqhaqho? [Enquiry regarding past surgery]
What happened to the knee that was the cause of the operation?
9. P: Ndawa, ndoyela emngxunyeni ebusuku, amathambo aze ashenxa endaweni yawo. [Explanation regarding event that lead to surgery]
I fell in the hole when I was walking at night; the bones shifted from their normal position.

Cognitive complexity

The segment comprising of sentences [6] – [9] represents the during examination phase of the consultation, entailing diagnostic instruction by the doctor. In this segment, sentences [6] and [7] are expressed in the present tense. Sentences [8] and [9], however, are expressed in the past tense, which cause this segment to denote the [- here-and-now] feature of developmental complexity. Causal reasoning occurs in the narrative phase of sentence [9] where the patient gives an account of the events that lead to her surgery. This exhibits the [- no reasoning] feature of developmental complexity. Spatial referential expressions occur in sentence [8], **endolweni**, and in sentence [9], **emngxunyeni**, **ebusuku** and **endaweni**. This exemplifies the [- few elements] feature of developmental complexity. These features contribute to this segment exhibiting a high level of developmental complexity.

This segment further exhibits a high level of performative complexity in that the doctor is required to perform multiple tasks simultaneously. These tasks include the physical examination of the patient's knee, drawing on acquired knowledge, listening to the

patient and formulating an appropriate prognosis. The patient's apparent quick response requires that the doctor perform these tasks in a limited amount of time. Fortunately, the doctor's acquired knowledge because of his professional expertise aids him in performing these tasks in the limited time that he has to his disposal. As a result, this segment exemplifies the following features of performative complexity, namely [- single task], [- planning] and [+ prior knowledge]. In terms of cognitive complexity properties on both a performative and developmental level, this phase represents the fourth dimension of Robinson's Dimension of Complexity Model, which is associated with high developmental as well as high performative complexity.

Syntactic complexity

The dialogue segment comprising of sentences 6 – 9 displays a considerable higher degree of syntactic complexity than the preceding phases. In this segment, sentences [7] and [8] are realised as a simple sentences. Sentence [6] and [9], however, are realised as complex sentences. In sentence [6], the imperative mood main clause takes a subjunctive mood complement clause, **ndilibone**, which denotes a purpose clause. Sentence [9] consists of three clauses, the main clause and two consecutive clause complements expressing the narration of events by the patient that resulted in her surgery. According to Foster *et al's* Analysis of Speech Unit Model, this segment characterises a high level of syntactic complexity.

Directive phase

10. D: Kufuneka uye egesini kuqala. [Instruction to go for x-rays]
It is necessary that you go to the x-ray room first.
11. D: Kusenokwenzeka ukuba ufumene usuleleko. [Reason for referral]
It could be that you were infected.
12. D: Siya kubonana kwakhona wakugqiba. [Comments on seeing each other again]
We will see each other again to decide.

13. P: Kulungile. [Agreement]

Okay.

Cognitive complexity

The dialogue segment comprising of sentences 10 - 13 represents the directive phase of the consultation. These sentences are all expressed in the present tense, thus denoting the [+ here-and-now] feature of developmental complexity. The occurrence of causal reasoning in the doctor's explanation of his suspicions in sentence [11] and the spatial referential expression, **egesini**, in sentence [10] exhibits the [- no reasoning] and [- few elements] features of developmental complexity. This segment therefore exemplifies a high level of developmental complexity.

This segment further exhibits a low level of performative complexity since the doctor has to perform the single task of explaining his prognosis to the patient. However, only if he invokes strategic planning methods, can the doctor create some planning time to take in what was expressed by the patient in the preceding phases. The process of formulating a possible prognosis is supported by the doctor's acquired knowledge because of his professional expertise. The features that contribute to the low level of performative complexity of this segment are namely, [+ single task], [+ planning] and [+ prior knowledge]. Therefore, according to Robinson's Dimensions of Complexity Model, this phase exemplifies properties characteristic of the third dimension of complexity, which is associated with high developmental complexity and low performative complexity.

Syntactic complexity

The sentences in this segment are all realised as complex clauses, except for sentence [13], which is a simple sentence expressing agreement. In sentence [10], the main clause verb **kufuneka** takes on a subjunctive mood complement clause **uye**. The main clause of sentence [11] takes an indicative mood complement clause, **ufumene**, introduced by the complementiser **ukuba**. Sentence [12] consists of an indicative mood main clause, which is followed by an infinitive mood complement clause, **wakugqiba**,

denoting a future occurrence. According to Foster *et al's* Analysis of Speech Unit Model, this segment characterises a high level of syntactic complexity.

3.6.1 Combined summary of analysis of dialogue 2

Phases	Developmental Complexity	Performative Complexity	Dimension	Syntactic complexity
1. Introductory phase	Low	Low	1	Low
2. Pre-examination phase	High	High	4	High
3. During examination phase	High	High	4	High
4. Post-examination phase				
5. Directive phase	High	Low	3	High

3.7 DIALOGUE 3

Dialogue 3 is a communication task relating to a patient experiencing pain in her lower abdomen. The x-ray results show that she has infection in her bladder.

Pre-examination phase

1. D: Usuka phi mama? [Enquiry regarding where patient resided from]
Where do you come from mother?
2. P: Ndisuka eKhayamnandi. [Answering of question]
I come from Khayamnandi.
3. D: Ufike nini apha eStellenbosch, uvela eMpuma Kapa? [Enquiry concerning time of arrival in Stellenbosch]
When did you arrive in Stellenbosch you come from Eastern Cape?
4. P: Ndifike kule nyanga iphelileyo. [Provision of answer]
I arrived last month.

5. D: Kutheni ulapha esibhedlele? [Enquiry regarding reason for appointment]
Why are you here to the hospital?
6. P: Ndiva iintlungu ezimana zinika isiqabu apha emazantsi esisu. [Supplying of reason for appointment]
I feel strange pains that pull here in my lower stomach.
7. D: Ngqengqa ndikuxilonge. [Instruction to lie down for examination]
Please lie down for examination.
8. P: Kulungile. [Agreement]
Okay.

Cognitive complexity

The segment comprising of sentences 1 – 8 represents the pre-examination phase of the consultation, entailing diagnostic questioning by the doctor. The sentences are all expressed in the present tense, except for sentence [4] that is expressed in the past tense. As a whole, the segment exhibits the [+ here-and-now] feature of developmental complexity in terms of Robinson's Dimensions of Complexity Model. No form of causal reasoning is evident in this segment, which exemplifies the [+ no reasoning] feature of developmental complexity. Several locatives occur in this segment, evident in the spatial references in sentences [2], [3], [5] and [6], and the temporal referential expression occurring in sentence [4]. This denotes the [- few elements] feature of developmental complexity. The segment as a whole can therefore be classified as low in developmental complexity.

In this segment, the doctor has to perform multiple tasks that include listening to the patient's responses, drawing on prior knowledge and formulating appropriate questions before communicating them to the patient. This denotes the [- single tasks] feature of performative complexity. The patient's apparent quick response to questions requires these tasks to be performed without delay, hence exemplifying the [- planning] feature of performative complexity. Because of his professional expertise, the doctor's knowledge concerning the situation would be sufficient. This denotes the [+ prior knowledge] feature

of performative complexity. This segment, therefore, displays a high level of performative complexity. According to Robinson's Dimensions of Complexity Model, this phase exemplifies properties characteristic of the second dimension of complexity, which is associated with low developmental and high performative complexity on the doctor's behalf.

Syntactic complexity

This segment is comprised mostly of simple clauses. These sentences express short monoclausal questions and answers, as evident in sentences 1 – 5 and sentence [8]. There are two instances where complex sentences occur within the pre-examination phase. Sentence [6] consists of two indicative mood clauses and in sentence [7], the imperative mood main clause verb **ngqengqa** takes on a subjunctive mood complement **ndikuxilonge**, which denotes a purpose clause. This segment as a whole, however, demonstrates a low level of syntactic complexity according to Foster *et al's* Analysis of Speech Unit Model.

During-examination phase

9. D: Ingaba sibuhlungu apha xa ndisiphatha? [Enquiry about soreness]
Is the stomach painful where I touch?
10. P: Ewe. [Confirmation]
Yes.

Cognitive complexity

The segment comprising of sentences [9] and [10] represents the during-examination phase of the consultation. The sentences in this segment are expressed in the present tense and contains no locatives, which respectively exemplify the [+ here-and-now] and the [+ few elements] features of developmental complexity. Causal reasoning occurs in sentence [9] with the use of the logical subordinator **ingaba**. This denotes the [- no reasoning demands] feature of developmental complexity. Because of these features, this segment demonstrates a low level of developmental complexity.

In this segment, the doctor has to perform multiple tasks simultaneously which denotes the [- single task] feature of performative complexity. These tasks include physically examining the patient, drawing on acquired knowledge (which exhibits the [+ prior knowledge] feature of performative complexity) and formulating a diagnosis. Whilst examining the patient, the doctor has time to his disposal to perform the previous mentioned tasks. This denotes the [+ planning] feature of performative complexity. Because of these features, this segment demonstrates low levels of performative complexity. The properties of this segment characterise the first dimension of Robinson's Dimensions of Complexity Model, which is associated with low developmental as well as low performative complexity.

Syntactic complexity

In this segment, sentence [10] is realised as a simple sentence expressing agreement. Sentence [9] consists of two clauses, the main clause and an indicative mood complement clause elaborating on the question expressed in the main clause. Because sentence [9] is realised as a complex clause, this segment displays a high level of syntactic complexity according to Foster *et al's* Analysis of Speech Unit Model.

Post-examination phase

11. D: Ngokweziphumo zomchamo zichaza ukuba unosuleleko. [Explanation of test results]
According to the urine results you have got some infection.
12. D: Uza kufumana amayeza oko. [Indicating that medicine will be given]
You will get some antibiotics.
13. P: Kulungile. [Agreement]
Okay.
14. D: Ukuba iintlungu azipheli, kufuneka uphinde ubuye. [Instructions in case of medicine not working]
If the pains are severe; you must come back again to the hospital.

15. P: Kulungile. [Agreement]

Okay.

Cognitive complexity

The segment comprising of sentences 11 – 15 represents the post-examination phase of the consultation. These sentences are all expressed in the present tense realising the [+ here-and-now] feature of developmental complexity. Causal reasoning occurs in sentences [11] and [14] with the use of the logical subordinator **ukuba**, hence denoting the [- no reasoning] feature of developmental complexity. There are no locatives in this segment, which exhibit the [+ few elements] feature of developmental complexity. These features contribute to the low level of developmental complexity of this segment.

This segment further illustrates a low level of performative complexity in that it requires the doctor to perform the single task of explaining the diagnosis to the patient. His professional expertise provides him with knowledge concerning this situation. This assists his performance in that he does not need much time to plan what has to happen next. Therefore, the features exhibited in this segment are [+ single tasks], [+ prior knowledge] and [+ planning]. According to Robinson's Dimensions of Complexity Model, this phase exemplifies properties characteristic of the first dimension which is associated with low developmental and low performative complexity on the doctor's behalf.

Syntactic complexity

Sentences [12], [13] and [15] are realised as simple (monoclausal) sentences. Sentences [11] and [14], however, exhibit the characteristics of complex clauses. Sentence [11] consists of two clauses, the main clause and an indicative mood complement clause introduced by the complementiser **ukuba**. In sentence [14] the negative verb of the main clause, **azipheli**, is followed by an indicative mood complement of which the verb **kufuneka** takes a subjunctive verb complement clause with the deficient verb **-phinda**, which itself requires a subjunctive mood complement

occurring as **ubuye**. According to Foster *et al*'s Analysis of Speech Unit Model, this segment characterises a high level of syntactic complexity.

Directive phase

16. D: Ungaya ke ngoku emayezeni, emva koko ugoduke.
You can go straight to the dispensary and then go back home.
17. P: Kulungile.
Okay.

Cognitive complexity

The segment comprising of sentences [16] and [17] represents the directive phase of the consultation. These sentences are expressed in the present tense and contain no form of causal reasoning, thus denoting the [+ here-and-now] and [+ no reasoning demands] features of developmental complexity. Sentence [17] contains a spatial referential expression, **emayezeni**, which realises the [- few elements] property of developmental complexity. The features of this segment characterise a low level of developmental complexity.

This segment furthermore exhibits features characteristic of a low level of performative complexity. In this segment of the dialogue, the doctor has to perform the single task of directing the patient where to go. The directive expressed in sentence [17] is standard and therefore does not require much planning time on the doctor's behalf. The respective features exhibited in this segment are namely, [+ single task], [+ prior knowledge] and [+ planning]. Therefore, according to Robinson's Dimensions of Complexity Model, this phase exemplifies properties characteristic of the first dimension of complexity which is associated with low developmental and low performative complexity on the doctor's behalf.

Syntactic complexity

In this segment, sentence [16] is realised as a complex clause. It consists of two clauses, the main clause and a subjunctive mood complement clause, **ugoduke**. According to Foster *et al.*'s Analysis of Speech Unit Model, this segment exhibits a high level of syntactic complexity.

3.7.1 Combined summary of analysis of dialogue 3

Phases	Developmental Complexity	Performative Complexity	Dimension
1. Introductory phase			
2. Pre-examination phase	Low	High	Low
3. During examination phase	Low	Low	Low
4. Post-examination phase	Low	Low	High
5. Directive phase			

3.8 DIALOGUE 4

Dialogue 4 is a communication task relating to a patient suffering from an ongoing medical problem relating to his unwillingness to stop smoking.

Introductory phase

1. D: Kunjani? [Enquiry about wellbeing]
How are you?
2. P: Hayi, andiphilanga. [Response]
No, I am not well.

Cognitive complexity

The dialogue segment comprising of sentences [1] and [2] represents the introductory phase of the consultation. Both of these sentences are expressed in the present tense which denotes the [+ here-and-now] feature of developmental complexity. The

pleasantries exchanged in these sentences are standard and exhibit the [+ no reasoning] and [+ few elements] properties of developmental complexity as they do not contain any form of causal reasoning or locative expressions. The properties exemplified in this segment characterise a low level of developmental complexity.

This segment furthermore demonstrates a low level of performative complexity in that the doctor has to perform the single task of greeting his patient. This is a standard procedure and does not require planning on the doctor's behalf. The features of performative complexity exemplified in this segment are namely, [+ single task], [+ prior knowledge] and [+ planning]. In terms of Robinson's Dimensions of Complexity Model, this phase exhibits properties characteristic of the first dimension of complexity, which is associated with low developmental and low performative complexity.

Syntactic complexity

Sentences [1] and [2] are realised as simple (monoclausal) sentences. This segment is, therefore, low in syntactic complexity according to Foster *et al.*'s Analysis of Speech Unit Model.

Pre-examination phase

3. D: Kubuhlungu phi? [Enquiry about soreness]
How are you, it hurts where?
4. P: Ndisakhohlela. [Explanation of problem]
I am still coughing.
5. D: Utshaya izigarethi ezingaphi ngosuku okanye ngeveki? [Enquiry regarding smoking habits]
How many cigarettes do you smoke per day or week?
6. P: Andizikhumbuli ukuba zingaphi kuba zininzi. [Answer]
I do not remember because they are so many.
7. D: Yiyo le nto ukhohlelayo. [Comment on possible cause of health problem]
That is why you are coughing.

8. D: Khulula, ndikuxilonge. [Instruction to remove clothes]
Undress, so I can examine you.
9. P: Kulungile. [Agreement]
Okay.

Cognitive complexity

The dialogue segment consisting of sentences 3 – 9 represents the **pre-examination** phase of the consultation, entailing diagnostic questioning by the doctor. These sentences are expressed in the present tense and denote the [+ here-and-now] feature of developmental complexity. The segment exhibits the [+ no reasoning] property of developmental complexity as it does not contain complex causal reasoning. Temporal referential expressions are evident in sentence [5] which denotes the [- few elements] property feature of developmental complexity. These features characterise a low level of developmental complexity in terms of Robinson's Dimensions of Complexity Model.

Sentences 3 – 9 exemplify a notable increase in performance complexity. In this segment, the doctor has to perform multiple tasks simultaneously. These tasks include listening to the patient, drawing on acquired knowledge and responding appropriately. This has to be done in the limited time that the doctor has to his disposal. The doctor's acquired knowledge because of his professional expertise aids him in performing these tasks. This segment therefore exemplifies the [- single task], [- planning time] and [+ prior knowledge] features of performance complexity. Consistent with the features described in Robinson's Dimensions of Complexity Model, this phase exhibits characteristics of the second dimension of complexity, which is associated with low developmental and high performative complexity.

Syntactic complexity

This segment is mostly comprised of simple clauses. These clauses are expressed as simple questions and answers, as evident in sentences 3 – 4, [7] and [9]. Sentences [6]

and [8], however, are syntactically complex. Sentence [7] consists of three clauses, the main clause and an indicative clause complement introduced by the complementiser **ukuba**. This complement clause itself contains a subordinate clause introduced by the conjunction **kuba**. In sentence [8], the imperative mood main clause takes a subjunctive clause complement, **ndikuxilonge**, to denote a purpose clause. In terms of Foster *et al.*'s Analysis of Speech Unit Model, this segment exemplifies a low level of syntactic complexity.

During examination phase

10. D: Phefumlela ngaphakathi nangaphandle! [Instruction to breathe in and out]
Breathe in and out!
11. P: Kulungile. [Agreement]
Okay.
12. D: Ingaba ukhohlo-khohlo lwakho lomile okanye lunezikhohlela? [Enquiry
regarding nature of problem]
Is your cough dry or wet?
13. P: Lomile. [Description]
It is a dry cough.

Cognitive complexity

The dialogue segment comprising of sentences 10 – 13 represents the during examination phase of the consultation, entailing diagnostic instruction by the doctor. Each sentence is expressed in the present tense denoting the [+ here-and-now] feature of developmental complexity. This segment demonstrates a predominantly low level of developmental complexity in spite of the occurrence of causal reasoning in sentence [12] and the temporal referential expressions occurring in sentence [10]. The features exemplified in this segment are namely, [+ here-and-now], [+ no reasoning] and [+ few elements] which make it low in developmental complexity.

According to Robinson's Dimensions of Complexity Model, this segment characterises a high level of performance complexity in that the doctor has limited planning time in which multiple tasks have to be performed simultaneously. These tasks include giving appropriate instructions, observing the patient's actions, drawing on prior knowledge and formulating a prognosis. This demonstrates the [- single task] and [- planning] features of performative complexity. The segment has a further property of [+ prior knowledge] because of the doctor's professional expertise. According to the specific criteria in Robinson's Dimensions of Complexity Model, this phase exemplifies features characteristic of the second dimension of complexity, which is associated with low developmental and high performative complexity.

Syntactic complexity

In terms of Foster *et al.*'s Analysis of Speech Unit Model, the dialogue segment comprising of sentences 10 – 13, namely the during-examination phase, exemplifies a low level of syntactic complexity. Except for sentence [12], these sentences all exemplify characteristics of simple clauses. Sentence [12] is a complex clause of which the main clause is introduced by the copulative adjunct phrase **ingaba**. This is followed by two conjunctive clausal complements, **lomile** and **lunezikhohlela**.

Post examination phase

14. D: Uxilongo lwezikhohlela zakho kule veki iphelileyo zibonakalise ukuba awunaso isifo sephepha. [Explanation of test results]
The examination of your phlegm last week showed negative-results that you do not have tuberculosis.
15. D: Kusenokwenzeka ukuba ukhohleliswa licuba. [Comment on suspected cause of ailment]
It could have happened that your coughing is of the tobacco.
16. P: Kulungile. [Agreement]
Okay.

17. D: Akuncedile amayeza ebesikunike wona kule veki ipheleleyo. [Comment about medication]
The medicine that we gave you last week helped.
18. D: Kufuneka uqhubekeke ukwasebenzisa, uzame ukuyeka ukutshaya.
[Statement about necessity to quit smoking]
It is necessary that you proceed with it, you try to stop smoking.
19. P: Andingetsho. [Disagreeing]
I don't agree.
20. P: Ndiwagqibile ngoku kwaye ndisakhohlela. [Expressing of opinion]
I finished the medication now I am still coughing.
21. D: Kufuneka uyeke ukutshaya. [Advise to quit smoking]
It is necessary that you stop smoking.
22. D: Awunakusebenzisa amayeza uphinde utshaye. [Advice on future health requirements]
It is necessary that you stop smoking; the medicine will not work if you smoke again.
23. P: Kulungile, ndiza kuzama. [Agreement]
Okay, I will try.

Cognitive complexity

The dialogue segment comprising of sentences 14 – 23 represents the post examination phase of the consultation. The sentences in this segment are all expressed in the present tense, except for sentence [16] which is expressed in the recent past tense with **-be**. The segment as a whole, however, exhibits the [+ here-and-now] feature of developmental complexity. This segment reveals a high level of developmental complexity, which is exemplified in the doctor's use of causal reasoning in sentences [14], [15], [18] and [22]. This exhibits the [- no reasoning] feature of developmental complexity. In addition, sentences [14] and [17] contain the same temporal referential expression, **kule veki iphelileyo**, denoting the [- few elements] feature of

developmental complexity. A high level of developmental complexity is therefore characterised in this segment.

This segment further exemplifies a high level of performative complexity. In this segment, the doctor is required to perform multiple tasks simultaneously, which exemplifies the [- single task] feature of performative complexity. These tasks include incorporating new information with the doctor's existing knowledge of the specific patient's situation, comprehending what is said and putting together an appropriate diagnosis concerning the patient's health. Because of the patient's apparent quick responses, this has to happen in a limited amount of time, which denotes the [-planning] property in terms of Robinson's Dimensions of Complexity Model. The segment has a further property of [+ prior knowledge] because of the doctor's professional expertise. This phase therefore correlates with the fourth dimension of Robinson's Dimensions of Complexity Model, which characterise high developmental and high performative complexity on the doctor's behalf.

Syntactic complexity

This segment is mostly comprised of complex clauses, with the exception of sentences [15], [18] and [22]. In sentences [13] and [14] the main clauses are both followed by indicative clause complements introduced by the complementiser **ukuba**. Sentence [16] consists of two clauses, the main clause and an indicative mood complement clause, **ebesikunike**, which is expressed in the recent compound past tense. In sentence [17], the verb of the main clause **kufuneka** takes a subjunctive mood complement **uqhubekeke**, which contains a situative mood clause **ukwasebenzisa**. A further subjunctive mood complement **uzame** occurs of which the verb takes an infinitival complement clause **ukuyeka**. Furthermore, the verb **-yeka** takes an infinitival complement clause **ukutshaya**. Sentence [21] consists of two coordinate clauses introduced by **kwaye**. In sentence [20] the verb of the main clause **kufuneka** takes a subjunctive mood complement clause of which the verb **-yeka** takes an infinitival clause complement **ukutshaya**. In sentence [21] the negative verb in the main clause takes a

subjunctive verb complement clause with the deficient verb **-phinda**, which itself requires a subjunctive mood complement, occurring as **utshaye**. According to Foster *et al.*'s Analysis of Speech Unit Model, this segment exhibits a high level of syntactic complexity.

Directive phase

24. D: Kufuneka uye egesini, sixilonge isifuba nemiphunga. [Directive to have x-rays taken]

It is necessary that you go to the x-ray room so that we can examine your chest and lungs.

25. P: Kulungile. [Agreement]

Okay.

Cognitive complexity

The segment comprising of sentences [24] and [25] represents the **directive** phase of the consultation. These sentences are expressed in the present tense which denote the [+ here-and-now] feature of developmental complexity. This segment, however, exhibits a high level of developmental complexity, evident in the doctor's use of causal reasoning in sentence [24] as a response to the agreement of the patient in sentence [23]. This denotes the [- no reasoning] feature of developmental complexity. Sentence [24] further exhibits a spatial referential expression **egesini**, which denotes the [- few elements] feature of developmental complexity in terms of Robinson's Dimensions of Complexity Model.

This segment further demonstrates a low level of performative complexity in that the doctor is left with the single task of commenting on future proceedings, which exemplifies the [+ single task] property of performative complexity. Furthermore, the directive given in sentence [24] is standard and therefore requires no planning on the doctor's behalf. This exemplifies the [+ prior knowledge] and [+ planning] feature of

performative complexity. According to the specific criteria in Robinson's Dimensions of Complexity Model, this phase exemplifies properties characteristic of the third dimension of complexity, which is associated with high developmental and low performative complexity.

Syntactic complexity

In this segment, sentence [25] is realised as a simple sentence expressing agreement. Sentence [24], however, is realised as a complex sentence that consists of three clauses, the main clause and two subjunctive mood complement clauses, **uye** and **sixilonge**. According to Foster *et al's* Analysis of Speech Unit Model, this segment exhibits a high level of syntactic complexity.

3.8.1 Combined summary of analysis of dialogue 4

Phases	Developmental Complexity	Performative Complexity	Dimension	Syntactic complexity
1. Introductory phase	Low	Low	1	Low
2. Pre-examination phase	Low	High	2	Low
3. During examination phase	Low	High	2	Low
4. Post-examination phase	High	High	4	High
5. Directive phase	High	Low	3	High

3.9 DIALOGUE 5

The communication task in dialogue 5 concerns a pregnant patient who is experiencing stomachaches and headaches. The doctor suspects that she is suffering from high blood pressure. He suggests that she be admitted to the hospital for further examination.

Pre-examination phase

1. D: Yintoni enzima? [Enquiry regarding problem]
What is a problem?
2. P: Ingxaki ndinesisu esibuhlungu. [Description of problem]
The problem is I have a sore stomach.
3. D: linyanga zakho zingaphi? [Enquiry concerning duration of pregnancy]
How many months are you pregnant?
4. P: Ndineenyanga ezisibhozo. [Provision of length of pregnancy]
I am 8 months pregnant.
5. D: Liphi ikhadi laseklinikhi? [Enquiry about possession of clinic card]
Where is the clinic card?
6. P: Nali apha kweli xwebhu lam uliphethayo. [Comment on whereabouts of card]
It is here on my file that you have in your possession.
7. D: Ugqibele nini ukuya exesheni? [Enquiry regarding last menstruation]
When was the last time you menstruated?
8. P: Kulo nyaka uphelileyo ngoNovemba. [Provision of answer]
It was this year that passed in November.
9. D: Uqinisekile? [Questioning certainty of answer]
Are you sure?
10. P: Ewe, ndiqinisekile. [Confirmation of certainty]
Yes, I am sure.
11. D: Waya kakanye kwiziko lempilo? [Enquiry regarding visiting the clinic once]
Did you go once to the clinic?
12. P: Hayi, kudala ndisiya. [Answering of question]
No, I went there a long time.
13. D: Ingaba intloko yakho ibuhlungu? [Enquiry about having a headache]
Is your head sore?

14. P: Ewe, ibuhlungu. [Confirmation]
Yes, it is sore.
15. D: Ngqengqa ebhedini ndikuxilonge. [Instruction to lie on bed for examination]
Please lie down so I can examine you.
16. P: Kulungile. [Agreement]
Okay.

Cognitive complexity

The segment comprising sentences 1 – 16 represents the pre-examination phase of the consultation that entails diagnostic questioning by the doctor. The sentences in this segment are all expressed in the present tense, except for sentence [15], which is expressed in the remote past tense to indicate an event that happened a long time ago. Hence, this segment predominantly characterises the [+ here-and-now] feature of developmental complexity as described in Robinson's Dimensions of Complexity Model. The short expressed questions and answers of this segment demonstrates no form of causal reasoning and is therefore characteristic of the [+ no reasoning] feature of developmental complexity. Locatives do occur in this segment. A temporal referential expression, **kulo nyaka uphelileyo**, is evident in sentence [8], which also contains the prepositional phrase **ngoNovemba**. Spatial referential expressions occur in sentences [6], [7] and [15]. The use of these locatives denote the [- few elements] feature of developmental complexity. The features of this segment, therefore, exemplify a low level of developmental complexity.

This segment, furthermore, exhibits a high level of performative complexity. The performative complexity of this segment is greatly influenced by the patient's apparent quick responses to the questions asked by the doctor. This leaves the doctor with little planning time denoting the [- planning] feature of performative complexity. Furthermore, it is evident that this segment requires the doctor to perform multiple tasks simultaneously. These tasks include asking appropriate questions to determine what the patient's complaints are, acknowledging these complaints and drawing on acquired knowledge to determine what subsequently has to happen. The multiple tasks that has

to be performed denote the [- single task] feature of performative complexity and the doctor's drawing on his prior knowledge exemplifies the [+ prior knowledge] feature of performative complexity. With all of these features taken into account, this segment characterise the second dimension of Robinson's Dimensions of Complexity Model, which is associated with low developmental and high performative complexity.

Syntactic complexity

This segment of the dialogue is comprised of short monoclausal questions and answers, which makes it low in syntactical complexity in terms of Foster *et al's* Analysis of Speech Unit Model. The only exception occurs in sentence [15] where the main clause verb **ngqengqa** takes on a subjunctive complement clause **ndikuxilonge** that denotes a purpose clause.

During-examination phase

17. D: Naba. [Instruction to stretch]
Stretch out.
18. P: Kulungile. [Agreement]
Okay.
19. D: Isisu sakho sincinci kakhulu kunomntu onyanga ezisibhozo. [Comment on length of pregnancy]
Your stomach is too small to be 8 months pregnant.
20. Ungavuka ndigqibile. [Instruction to wake up]
You can wake up, I am finished.
21. P: Kulungile. [Agreement]
Okay.

Cognitive complexity

Sentences 17 - 21 exhibit low levels of developmental complexity seeing as they are expressed in the present tense and do not contain any form of causal reasoning or locatives. This respectively exhibits the [+ here-and-now], [+ no reasoning] and [+ few elements] features of developmental complexity.

The doctor gives an instruction in sentence [17] and is consequently required to perform multiple tasks, which include examining the patient, drawing on his prior knowledge to assess the situation and forming a possible prognosis. This exemplifies the [- single task] and [+ prior knowledge] features of performative complexity. Whilst examining the patient, the doctor has plenty of planning time to come to a conclusion, which denotes the [+ planning] feature of performative complexity. These features illustrate that this segment is low in performative complexity. This phase of the consultation is therefore characteristic of the first dimension of Robinson's Dimensions of Complexity Model, which is associated with low developmental as well as low performative complexity.

Syntactic complexity

Except for sentence [20], sentences 17 - 21 are realised as simple monoclausal sentences. Sentence [20] consists of two clauses, the main clause and an indicative complement clause, **ndigqibile**. As a whole, however, this segment is low in syntactic complexity in terms of Foster *et al*'s Analysis of Speech Unit Model.

Post examination phase

22. D: Uza kulaliswa apha esibhedlele kuba igazi lakho liphezulu. [Informing patient that she will be hospitalised]
You will be admitted, as your blood pressure is too high.
23. P: Kulungile. [Agreement]
Okay.

Cognitive complexity

The segment comprising of sentences 22 – 23 represents the post-examination phase of the consultation and exhibits features characteristic of high developmental complexity. The sentences in this segment are expressed in the present tense, hence denoting the [+ here-and-now] characteristic of developmental complexity. The [- no reasoning] feature of developmental complexity is evident in the occurrence of causal reasoning in sentence [22] with the doctor's use of the logical subordinator **kuba**. Sentence [22] furthermore contains a spatial referential expression evident in **esibhedlele**, which exhibits the [- few elements] feature of developmental complexity.

Because of his professional expertise, the doctor has acquired a lot of knowledge which denotes the [+ prior knowledge] feature of performance complexity. After examining the patient and reaching his conclusion in the during-examination phase, the doctor is left with the single task of communicating his findings to the patient, which exemplifies the [+ single task] feature of performative complexity. Subsequently, no planning is needed in this segment before performing the task, and therefore the [+ planning] feature of performative complexity is exemplified. According to Robinson's Dimensions of Complexity Model, this phase exemplifies properties characteristic of the third dimension of complexity, which is associated with high developmental and low performative complexity on the doctor's behalf.

Syntactic complexity

In this segment, sentence [23] is realised as a simple monoclausal sentence expressing agreement. Sentence [22], however, is a complex clause consisting of two clauses, the main clause and an indicative mood subordinate clause introduced by the conjunction **kuba**. This segment, therefore, is high in syntactic complexity in terms of Foster *et al*'s Analysis of Speech Unit Model.

Directive phase

24. D: Ungaya koonesi ke ngoku bakunike umkhomba ndlela. [Instruction to go to the nurses]
 You can go to the nurses now so they can give you for advice for the road ahead.
25. P: Kulungile. [Agreement]
 Okay.

Cognitive complexity

The segment comprising of sentences [24] and [25] represents the directive phase of the consultation. These sentences are expressed in the present tense denoting the [+ here-and-now] feature of developmental complexity. There is no evidence of causal reasoning, which exemplifies the [+ no reasoning] feature of developmental complexity. A spatial referral in sentence [24], **koonesi**, exhibits the [- few elements] feature of developmental complexity. As a whole, this segment exhibits features that characterise a low level of developmental complexity.

This segment further displays a low level of performative complexity, as it requires that the doctor perform the single task of directing the patient where to go. This exhibits the [+ single task] feature of performative complexity. The directive expressed in sentence [24] is standard, and therefore does not require planning. This denotes the [+ planning] feature of performative complexity. Therefore, according to Robinson's Dimensions of Complexity Model, this phase exemplifies properties characteristic of the first dimension of complexity, which is associated with low developmental and low performative complexity on the doctor's behalf.

Syntactic complexity

Sentence [25] of this segment of the dialogue is realised as a simple monoclausal sentence. Sentence [24], however consists of two clauses, the main clause and a subjunctive complement clause, which denotes a successive event. According to Foster *et al.*'s Analysis of Speech Unit Model, this segment displays a high level of syntactic complexity.

3.9.1 Combined summary of analysis of dialogue 5

Phases	Developmental Complexity	Performative Complexity	Dimension	Syntactic complexity
1. Introductory phase				
2. Pre-examination phase	Low	High	2	Low
3. During examination phase	Low	Low	1	Low
4. Post-examination phase	High	Low	3	Low
5. Directive phase	Low	Low	1	High

3.10 DIALOGUE 6

Dialogue 6 is a communication task relating to a patient experiencing pain and weakness in his arm. The doctor suspects that the patient may suffer from arthritis and refers her to a specialist at Tygerburg Hospital.

During-examination phase

1. D: Khulula ibhatyi ndibone ingalo. [Instruction to undress]
Please take off your jacket so I can see your arm.

2. P: Kulungile. [Agreement]
Okay.
3. D: Kwenzeka ntoni engalweni? [Enquiry about arm]
What happened to your arm?
4. P: Isuke nje yabuhlungu, yabuthaka-thaka. [Description of problem]
It just began to pain it is weak.
5. D: Zange wenzakale? [Enquiry concerning previous injuries]
You were never injured before?
6. P: Hayi, zange ndenzakale. [Response to question]
No, I was never injured.
7. D: Ubukhe waya kwiziko lempilo elikufutshane? [Enquiry about visiting a clinic]
Did you sometimes go to your nearest clinic?
8. P: Ewe, bathe mandize apha. [Response to question]
Yes, they referred me here.
9. D: Mingaphi iminyaka yakho? [Enquiry about age]
How old are you?
10. P: Ndineminyaka engama-47 ubudala. [Response to question]
I am 47 years old.
11. D: Ingxaki yayo kwakhona iyadumba. [Enquiry about problem]
The problem again is the swelling.
12. P: Ewe. [Agreement]
Yes.
13. D: Nceda uyishukumise ingalo? [Request to shake hand]
Please can you shake your hand?
14. D: Ibuhlungu? [Enquiry about soreness]
Is it sore?

15. P: Ewe, ibuhlungu kakhulu. [Confirmation]
Yes, it is very sore.
16. D: Wagqibela egesini ngo-1999, zange bafumane ingxaki yesifo samalungu?
[Enquiry about arthritis]
You last went to have an x-ray in 1999, have they never discovered arthritis?
17. P: Hayi. [Denial]
No.
18. D: Usebenza msebenzi mni? [Enquiry about nature of work]
What type of job are you doing?
19. P: Ndisebenza efama. [Description of work]
I am working on the farm.
20. D: Amanye amalungu omzimba awabuhlungwanga? [Enquiry about pain
experienced in other body parts]
Are other parts of the body are not sore?
21. P: Hayi, zingalo kuphela. [Confirmation of pain being in arms only]
No, it is the arms only.

Cognitive complexity

The segment comprising of sentences 1 – 22 represents the during-examination phase of the consultation. The sentences in this segment are mostly expressed in the present tense, except for sentences 4 – 8 which are expressed in the recent past tense and sentence [15] that is expressed in the remote past tense. This segment as a whole, however, denotes the [+ here-and-now] characteristic of developmental complexity in terms of Robinson's Dimensions of Complexity Model. One instance of causal reasoning occurs in sentence [15] of this segment. Seeing as the questions and answers that comprise the rest of the segment are short and to the point, this segment will illustrate the [+ no reasoning demands] feature of developmental complexity. In addition, this segment contains both spatial and temporal expressions, respectively evident in sentences [3], [7], [16] and [19], and sentence [16]. This exemplifies the [-

few elements] feature of developmental complexity. With these factors taken into account, this segment exemplifies a low level of developmental complexity.

The segment further characterises a high level of performative complexity. In this segment, the doctor examines the patient whilst asking questions that will possibly lead him to form a prognosis. This entails doing multiple tasks simultaneously which denotes the [- single task] feature of performative complexity. The patient's assumed quick responses leave the doctor with little time to plan his next action or to formulate an appropriate response. This exemplifies the [- planning] feature of performative complexity. To aid him in performing these multiple tasks in a short time span, he can rely on his acquired knowledge because of his professional expertise. This exhibits the [+ prior knowledge] feature of performative complexity. Therefore, according to Robinson's Dimensions of Complexity Model, this phase exemplifies properties characteristic of the second dimension of complexity, which is associated with low developmental and high performative complexity on the doctor's behalf.

Syntactic complexity

The segment comprising of sentences 1-22 consist mostly of simple clauses, which express short monoclausal questions and answers. Only a few instances of complex clauses occur in this phase. Sentence [1] consists of two clauses; the imperative mood main clause and a subjunctive mood complement **ndibone** denoting a purpose clause. Sentence [8] is comprised of two indicative clauses expressed in the past tense. Sentence [16] consists of two clauses, an indicative main clause and a consecutive clause complement introduced by the auxiliary verb/complementiser **zange**. The segment therefore characterises a low level of syntactic complexity.

Directive phase

22. D: Siza kwenzela idinga ubonane nengcali yamathambo eTygerburg kule veki izayo. [Explanation of future proceedings]

We will make an appointment that you see the bone specialist at Tygerburg next week.

23. D: Kodwa kuqala kufuneka uye egesini. [Instruction to go to the x-ray room]
But first it is necessary that you go to the x-ray room.

24. P: Kulungile.
Okay.

Cognitive complexity

The segment comprising of sentences 22 – 24 represents the directive phase of the consultation. The sentences are expressed in the present tense which exhibits the [+ here-and-now] feature of developmental complexity. Causal reasoning is evident in sentence [22] with the use of the logical subordinator **kodwa**. This denotes the [- no reasoning] feature of developmental complexity. Two spatial references, **eTygerburg** and **egesini**, along with a temporal referential expression, **kule veke izayo** occur in sentence [22]. These locatives characterise the [- few elements] feature of developmental complexity. The features of this segment therefore display high levels of developmental complexity.

The segment further exemplifies a high level of performative complexity. In this segment, the doctor performs the dual task of explaining to the patient what will happen and where to go next. This denotes the [- single task] feature of performative complexity. The explanation and direction respectively given in sentence [22] and [23] requires that the doctor draws on his previously acquired knowledge which exemplifies the [+ prior knowledge] feature of performative complexity. Only if he invokes strategic planning methods, can the doctor create some planning time to prepare his response. This would then illustrate the [+ planning] feature of performative complexity. Evidently, this segment exhibits high levels of developmental complexity, and low levels of performative complexity. It therefore exemplifies properties characteristic of the third dimension of Robinson's Dimensions of Complexity Model.

Syntactic complexity

Sentences [22] and [23] are realised as a complex clauses. Sentence [22] consists of an indicative main clause followed by a subjunctive mood complement clause, **ubonane**. Sentence [23] consists of four clauses, namely the main clause and three complement clauses. The main clause is followed by an indicative clause complement expressing a future event. This clause is followed by yet another indicative mood clause introduced by the conjunction **kodwa**, the verb of which takes on a subjunctive mood complement clause, **uye**. According to Foster *et al's* Analysis of Speech Unit Model, this segment exemplifies a high level of syntactic complexity.

3.10.1 Combined summary of analysis of dialogue 6

Phases	Developmental Complexity	Performative Complexity	Dimension	Syntactic complexity
1. Introductory phase				
2. Pre-examination phase				
3. During examination phase	Low	High	2	Low
4. Post-examination phase				
5. Directive phase	High	High	4	High

3.11 DIALOGUE 7

Dialogue 7 is a communication task relating to a patient suffering from an ongoing medical problem. After not being able to identify the problem, the doctor sends the patient to have for x-ray tests taken.

Introductory phase

1. D: Unjani? [Enquiry regarding wellbeing]
How are you?
2. P: Ndiyazama-zama, nangona ndigula nje. [Response]
I am trying to cope although I am sick.

Cognitive complexity

The segment comprising of sentences [1] and [2] represents the introductory phase. These sentences exhibit a low level of developmental complexity as they are expressed in the present tense and do not contain any locatives. This respectively denotes the [+ here-and-now] and [+ few elements] feature of developmental complexity. Sentence [2], however, does contain a form of causal reasoning, evident in the conjunctive **nangona** denoting concession, which exemplify the [- no reasoning] feature of developmental complexity.

This segment further demonstrates a low level of performative complexity since the question expressed in sentence [1] and the answer expressed in sentence [2] are standard. The segment's single objective of expressing pleasantries therefore denotes the [+ single task], [+ prior knowledge] and [+ planning] features of performative complexity. This segment exemplifies properties characteristic of the first dimension of Robinson's Dimensions of Complexity Model, which is associated with low developmental complexity and low performative complexity.

Syntactic complexity

In this segment of the dialogue, the question expressed in sentence [1] is realised as a simple clause. Sentence [2], however, consists of two clauses, the main clause and an indicative clause complement introduced by the conjunctive **nangona**. According to Foster *et al.*'s Analysis of Speech Unit Model, this segment exemplifies a high level of syntactic complexity.

Pre-examination

3. D: Yintoni ingxaki? [Enquiry regarding problem]
What is the problem?
4. P: Ndiyakhohlela ingakumbi ebusuku isifuba sam sibuhlungu. [Description of problem]
I am coughing and my chest is sore especially at night.
5. D: Iqale nini le ngxaki? [Enquiry regarding beginning of problem]
When did this begin?
6. P: Iqale kule veki iphelileyo. [Providing time]
It started last week.
7. D: Umzimba wakho uhlile? [Enquiry concerning weight loss]
Have you lost weight?
8. P: Hayi. [Denial]
No.
9. D: Ukutya ukucacele? [Enquiry regarding appetite]
Do you have an appetite?
10. P: Hayi. [Denial]
No.
11. D: Ukhohlo-khohlo lwakho lunjani, lomile okanye livundile? [Enquiry regarding nature of cough]
How is your cough is it dry or wet?
12. P: Ubukhulu becala lomile. [Response to enquiry]
It is dry mostly.
13. D: Khulula, ndikuxilonge isifuba. [Instruction to undress for examination]
Please take off your jacket to examine the chest.
14. P: Kulungile. [Agreement]
Okay.

Cognitive complexity

The segment comprising of sentences 3 - 14 represents the pre-examination phase of the consultation, entailing diagnostic questioning by the doctor. Except for sentences [4] and [5] being expressed in the past tense, these sentences are all expressed in the present tense which exemplifies the [+ here-and-now] feature of developmental complexity. Causal reasoning only occurs in sentences [4] and [11], hence this segment demonstrates the [+ no reasoning] feature of developmental complexity. A spatial referential expression, **ebusuku**, occurs in sentence [4] and a temporal referential expression, **kule veki iphelileyo**, occurs in sentence [6]. The segment as a whole, however, denotes the [+ few elements] feature of developmental complexity. According to these features, this segment displays a low level of developmental complexity.

This segment further displays a high level of performative complexity in that the doctor has to perform multiple tasks simultaneously. These tasks include repeatedly formulating new questions in response to the answers supplied by the patient, drawing on acquired knowledge and contemplating a possible prognosis. With the patient's assumed quick response to the questions asked, the doctor has limited time to plan subsequent questions or actions. The features that contribute to the level of performative complexity in this segment are namely, [- single task], [+ prior knowledge] and [- planning]. This segment is therefore characteristic of the second dimension of Robinson's Dimensions of Complexity Model, which is associated with low developmental complexity and high performative complexity.

Syntactic complexity

This segment is mostly comprised of simple sentences that express short monoclausal questions and answers. Complex clauses occur in sentences [4], [11] and [13]. Sentence [4] consists of two clauses, the main clause and a complement indicative mood clause introduced by the conjunctive **ingakumbi**. In sentence [11], the main clause is followed by two complement copulative clauses, **lomile** and **livundile**. Sentence [13] is comprised of an imperative mood main clause followed by a subjunctive mood complement clause, **ndikuxilonge**, to denote a purpose clause.

According to Foster *et al.*'s Analysis of Speech Unit Model, this segment as a whole exemplifies a low level of syntactic complexity.

During-examination phase

15. D: Phefumlela ngaphandle nangaphakathi. [Instruction to breathe in and out]
Please breathe in and out!
16. P: Kulungile. [Agreement]
Okay.

Cognitive complexity

The segment comprising of sentences [15] and [16] represents the during-examination phase of the consultation, entailing diagnostic instruction by the doctor. These sentences characterise a low level of developmental complexity as they are expressed in the present tense and contain no form of causal reasoning, therefore exemplifying the [+ here-and-now] and [+ no reasoning] features of developmental complexity. Temporal referential expressions occur in sentence [15] in the prepositional phrases **ngaphandle** and **nangaphakathi**. This denotes the [- few elements] feature of developmental complexity.

In this segment, the doctor has to perform the dual task of giving an instruction and analysing the action that follows it. This exhibits the [- single task] feature of performative complexity. This segment, however, displays low levels of performative complexity in that the instruction given in sentence [15] is standard. The features that are brought about by this instruction are [+ prior knowledge] because of the doctor's professional expertise and [+ planning] because of the frequent use of the instruction. According to Robinson's Dimensions of Complexity Model, this phase exemplifies properties characteristic of the first dimension of complexity, which is associated with low developmental complexity and low performative complexity.

Syntactic complexity

The question and answer expressed respectively in sentences [15] and [16] are realised as simple (monoclausal) sentences. Therefore, according to Foster *et al.*'s Analysis of Speech Unit Model, this segment displays a low level of syntactic complexity.

Post-examination phase

17. D: Isifuba sakho asibonakalisi ngxaki, kodwa ke kufuneka uye egesini, uxilongwe nezikhohlela. [Explanation of diagnosis]
Your chest is not bad; but you must go to the x-ray tests and phlegm.
18. P: Kulungile. [Agreement]
Okay.

Cognitive complexity

The segment comprising of sentences [17] and [18] represents the post-examination phase of the consultation. These sentences are expressed in the present tense and denote the [+ here-and-now] feature of developmental complexity. The segment does however exemplify high levels of developmental complexity because of sentence [17] containing causal reasoning, indicated by the coordinating conjunctive **kodwa ke**, and a spatial referential expression, **egesini**. This respectively exemplifies the [- no reasoning] and [- few elements] features of developmental complexity.

In addition, this segment demonstrates a low level of performative complexity. The time that passed from the beginning of the during-examination phase to the beginning of the post-examination phase provided the doctor with many opportunities for planning. The planning process is supported by the doctor's acquired knowledge because of his professional expertise. Consequently, in the post-examination phase, the single task of explaining the diagnosis to the patient has to be performed. The features exhibited in this segment are [+ planning], [+ prior knowledge] and [+ single task]. In terms of Robinson's Dimensions of Complexity Model, this segment exhibits properties characteristic of the third dimension of complexity, which is associated with high developmental complexity and low performative complexity.

Syntactic complexity

In this segment, sentence [18] is realised as a simple sentence expressing agreement. Sentence [17] is recognized as a complex sentence consisting of four clauses. The negative verb phrase of the main clause in itself is complex. It is followed by an indicative complement clause, introduced by the conjunction **kodwa**, with the verb **kufuneka** taking a subjunctive mood complement **uye**. A further subjunctive mood complement, **uxilongwe**, occurs, which is followed by an associative adjunct phrase **nezikohlela**. This segment therefore demonstrates a high level of syntactic complexity in terms of Foster *et al.*'s Analysis of Speech Unit Model.

Directive phase

19. D: Ungaphindela koonesi bakuxelele ukuba uthini na. [Instruction to go to nurses for further information]
You can go back to the nurses they will then tell you what to do.
20. P: Kulungile. [Agreement]
Okay.

Cognitive complexity

The segment comprising of sentences [19] and [20] represents the directive phase of the consultation. These sentences are expressed in the present tense which exhibits the [+ here-and-now] feature of developmental complexity in terms of Robinson's Dimensions of Complexity Model. This segment, however, demonstrates a high level of developmental complexity because of sentence [19] containing causal reasoning, as indicated by the logical subordinator **ukuba**, and because of it containing a spatial referential expression, **koonesi**. This respectively denotes the [- no reasoning] and [- few elements] features of developmental complexity.

The performative complexity of this segment is low in that the doctor is left with the single task of directing the patient where to go, which is a standard procedure that requires no planning on the doctor's behalf. This segment therefore exemplifies the

following features of performative complexity, namely, [+ single task], [+ prior knowledge] and [+ planning]. According to Robinson's Dimensions of Complexity Model, this phase exemplifies properties characteristic of the third dimension, which is associated with high developmental and low performative complexity on the doctor's behalf.

Syntactic complexity

In this segment, sentence [20] is realised as a simple sentence expressing agreement. Sentence [19] is recognised as a complex sentence consisting of three clauses. The main clause of sentence [19] is followed by a subjunctive mood complement clause, **bakuxelele**. This is followed by an embedded indicative complement clause introduced by the complementiser **ukuba**. According to Foster *et al.*'s Analysis of Speech Unit Model, this segment demonstrates a high level of syntactic complexity.

3.11.1 Combined summary of analysis of dialogue 7

hases	Developmental Complexity	Performative Complexity	Dimension	Syntactic complexity
1. Introductory phase	Low	Low	1	High
2. Pre-examination phase	Low	High	2	Low
3. During examination phase	Low	Low	1	Low
4. Post-examination phase	High	Low	3	High
5. Directive phase	High	Low	3	High

3.12 DIALOGUE 8

Dialogue 8 is a communication task relating to a pregnant woman who is having stomach cramps. The doctor suspects that she had an infection in her stomach but sends her to have x-rays taken to make sure that the baby is well.

Introductory phase

1. D: Uyasithetha isiNgesi? [Enquiry about language competence]

Do you speak English?

2. P: Ewe. [Affirmation]

Yes.

Cognitive complexity

The dialogue segment comprising of sentences [1] and [2] represents the introductory phase of the consultation. The segment demonstrates a low level of developmental complexity as the sentences are expressed in the present tense, requires no causal reasoning and contains no locatives. The features of developmental complexity exemplified in this segment are, namely, [+ here-and-now], [+ no reasoning] and [+ few elements].

In this segment, the single task of enquiring about the patient's language ability demonstrates a low level of performative complexity on the doctor's behalf. The question expressed in sentence [1] is standard and therefore does not require much planning. The features of performative complexity demonstrated in this segment are namely, [+ single task], [+ prior knowledge] and [+ planning]. According to Robinson's Dimensions of Complexity Model, this phase exemplifies properties characteristic of the first dimension of complexity, which is associated with low developmental and low performative complexity on the doctor's behalf.

Syntactic complexity

The sentences that comprise this segment are realised as simple (monoclausal) sentences. These sentences express short monoclausal questions and answers. According to Foster *et al.*'s Analysis of Speech Unit Model, this segment displays a low level of syntactic complexity.

Pre-examination phase

3. D: Ibiyintoni ingxaki kanene? [Enquiry about well being]
What was the problem?
4. P: Bendineentlungu esiswini, ngamaxesha athile. [Explanation of problem]
I sometimes have stomach pains.
5. D: Bekusenokwenzeka ukuba kwakushukuma umntwana. [Suggestion of why discomfort was experienced]
May be the baby was in construction.
6. P: Kwakhona ngoku nomlenze lo wasekunene ubuhlungu. [Expressing additional problem]
Again now my right leg also has pain.

Cognitive complexity

The dialogue segment comprising of sentences 3 – 6 represents the pre-examination phase of the consultation, entailing diagnostic questioning by the doctor. This segment exemplifies various cognitive complexity properties. Sentences [3], [4] and [5] are expressed in the recent past tense with **-be**, which denotes the [- here-and-now] property of developmental complexity. The occurrence of causal reasoning in sentence [5] exhibits the property of [- no reasoning] and the spatial referential expressions **esiswini** and **wasekunene** further denotes the [- few elements] property of developmental complexity. According to Robinson's Dimensions of Complexity Model, this segment exhibits a high level of developmental complexity.

This segment furthermore exhibits a high level of performative complexity since the doctor has limited planning time in which he has to ask appropriate questions, comprehend what is said by the patient, draw on his acquired knowledge and formulate a suitable response. This represents the [- planning] and [- single task] features of performance complexity. The segment has a further property of [+ prior knowledge] because of the doctor's professional expertise. Therefore, according to Robinson's Dimensions of Complexity Model, this segment demonstrates properties characteristic of the fourth dimension of complexity, which is high in developmental complexity and performative complexity.

Syntactic complexity

The syntactic complexity of this phase exceeds that of the introductory phase. The sentences comprising this segment vary in their syntactic complexity. Sentences [3], [4] and [6] are realised as simple clauses. In sentence [5], the main clause **bekusenokwenzeka** takes an indicative mood complement introduced by the complementiser **ukuba**. Sentence [5] is therefore realised as a complex clause. According to Foster *et al.*'s Analysis of Speech Unit Model, this segment exemplifies a low level of syntactic complexity.

During examination phase

7. D: Unganyusa ilokhwe ndibone umlenze? [Request to pull up dress]
Can you pull up the dress so I can see the leg?
8. P: Ewe. [Agreement]
Yes.
9. D: Ubonakala ngathi ulungile. [Comment regarding problem]
It looks okay.
10. P: Kulungile. [Agreement]
Okay.

11. D: Ungangqengqa, ndikuxilonge? [Request to lie down for examination]
Can you lie down on bed for examinations?
12. P: Ewe. [Agreement]
Yes.

Cognitive complexity

The segment comprising of sentences 7 – 14 represents the during examination phase of the consultation, involving diagnostic instruction by the doctor. This segment demonstrates a low level of developmental complexity. The questions and responses expressed in this dialogue segment exhibit [+ few elements] and [+ no reasoning] properties in that they do not contain locative expressions or any form of causal reasoning. In addition, these sentences are all expressed in the present tense, exemplifying the [+ here-and-now] property of developmental complexity.

This segment further exhibits a low level of performative complexity. The doctor has to perform multiple tasks simultaneously, which include giving appropriate instructions, analysing the patient's reactions, drawing on acquired knowledge and formulating a prognosis. This denotes the [- single task] and [+ prior knowledge] features of performative complexity. While examining the patient, the doctor can invoke strategic planning methods to create planning time to assess the situation, which would denote the [+ planning] property of performance complexity. This phase exemplifies properties characteristic of the first dimension of Robinson's Dimensions of Complexity Model, which is associated with low developmental and low performative complexity.

Syntactic complexity

According to Foster *et al.*'s Analysis of Speech Unit Model, the sentences that comprise this segment of the dialogue exhibit a high level of syntactic complexity, with the exception of the agreement expressions in sentences [8], [10] and [12]. The main clause of sentence [7] is itself syntactically complex in that the verb **nyusa** takes on the auxiliary verb particle **-nga-**, expressing consent. It is followed by a subjunctive mood

complement clause to denote a purpose clause. Sentence [9] consists of two coordinate clauses separated by the conjunction **ngathi**. In sentence [10], the main clause **ungangqengqa** is followed by a subjunctive mood complement, **ndikuxilonge**, to denote a purpose clause.

Post examination phase

13. D: Sibonakala sibhetele ngoku, nomntwana ulungile. [Comment concerning wellbeing]
It looks better now and the baby is okay.
14. P: Kulungile. [Agreement]
Okay.
15. D: Ubunosuleleko kancinci esiswini kule veki iphelileyo, kodwa kubhetele namhlanje. [Comment concerning health]
You had a bit of infection in your stomach last week, but now it is better.
16. P: Kulungile. [Agreement]
Okay.
17. D: Kufuneka uphumle, ungasebenzi. [Recommendation concerning ifestyle]
It is necessary that you rest and that you don't work.

Cognitive complexity

The dialogue segment comprising sentences 13 - 17 represents the post examination phase of the consultation. This segment exemplifies various cognitive complexity properties. Except for sentence [15] being expressed in the recent compound past tense with **-be**, the sentences in this segment are all expressed in the present tense, thus denoting the [+ here-and-now] feature of developmental complexity. This segment, however, exhibits a high level of developmental complexity. Causal reasoning, indicated by the logical subordinator **kodwa**, is evident in sentence [15] and denotes the [- no reasoning] feature of developmental complexity. Furthermore, a spatial referential expression, **esiswini**, and a temporal referential expression, **kule veki iphelileyo**,

occurs in sentence [15] which exhibits the [- few elements] feature of developmental complexity.

This segment further demonstrates a low level of performative complexity. In the during-examination phase, the doctor had sufficient time to draw on his prior knowledge and make a prognosis. Consequently, this segment requires the doctor to perform the single task of explaining his prognosis to the patient. The features that contribute to the low level of performative complexity in this segment are namely, [+ planning], [+ prior knowledge] and [+ single task]. Therefore, according to Robinson's Dimensions of Complexity Model, this phase exemplifies properties characteristic of the third dimension of complexity, which is associated with high developmental and low performative complexity on the doctor's behalf.

Syntactic complexity

This segment is mostly comprised of complex clauses, with the exception of sentences [14] and [16] that express agreement. The complex clause of sentence [13] consists of a main clause followed by a copulative complement clause, **sibhetele**, and an associative adjunct clause with the preposition **na-**. Sentence [15] consists of an indicative mood main clause which in itself is syntactically complex as it includes two temporal adjunct phrases; the last of which includes a relative mood clause on the verb **phela**. This is followed by the conjunction **kodwa**, which introduces a copulative complement clause, **kubethele**, denoting an elaboration of the information provided in the main clause. In sentence [17], the verb of the main clause **kufuneka** takes a subjunctive mood complement clause **uphumle**, which is followed by a further subjunctive mood complement clause containing the negative verb **ungasebenzi**. According to Foster *et al*'s Analysis of Speech Unit Model, this segment has a high level of syntactic complexity.

Directive phase

18. D: Siza kunika amayeza eentlungu, kodwa uza kuqala egesini kuhlolwe umntwana esiswini ukuba ushukuma kakuhle. [Explanation of medical prescription and immediate referral to x-ray room]
We will give you medicine, but you must first go to the x-ray room to have the baby looked at because it is moving a lot.
19. P: Kulungile. [Agreement]
Okay.

Cognitive complexity

The dialogue segment comprising sentences [18] and [19] represents the directive phase of the consultation. This segment exhibits a high level of developmental complexity because of sentence [18] that contains causal reasoning elements, indicated by **kodwa** and **ukuba**, and spatial referential expressions **egesini** and **esiswini**. The causal reasoning and spatial expressions respectively denote the [- no reasoning] and [- few elements] features of developmental complexity. The segment has a further property of [+ here-and-now] because of sentences [18] and [19] being expressed in the present tense.

The segment further exemplifies a low level of performative complexity in that the doctor has to perform the single task of explaining the subsequent procedures to the patient, which exemplifies the [+ single task] feature of performative complexity. The statements made and instructions given in sentence [18] are not standard and therefore require careful planning. The doctor, however, does not have much time to his disposal, which denotes the [- planning] feature of performative complexity. Fortunately, the doctor's professional expertise and acquired knowledge alleviates this process. This denotes the [+ prior knowledge] feature of performative complexity. Therefore, according to Robinson's Dimensions of Complexity Model, this phase exemplifies properties characteristic of the third dimension, which is associated with high developmental and low performative complexity on the doctor's behalf.

Syntactic complexity

In this segment, sentence [18] is realised as a complex sentence and sentence [19] as a simple sentence expressing agreement. Sentence [18] consists of four clauses. The main clause is followed by an indicative complement clause introduced by the conjunction **kodwa**. This is followed by a complement clause **kuhlolwe** followed by an indicative clause complement introduced by the complementiser **ukuba**. According to Foster *et al.*'s Analysis of Speech Unit Model, this segment exemplifies a high level of syntactic complexity.

3.12.1 Combined summary of analysis of dialogue 8

Phases	Developmental Complexity	Performative Complexity	Dimension	Syntactic complexity
1. Introductory phase	Low	Low	1	Low
2. Pre-examination phase	High	High	4	Low
3. During examination phase	Low	Low	1	High
4. Post-examination phase	High	Low	3	High
5. Directive phase	High	Low	3	High

3.13 DIALOGUE 9

Dialogue 9 is a communication task relating to a patient having trouble breathing. After examining the patient, the doctor discovers that she has water on her lungs.

During-examination phase

1. D: Ngqengqa ndikuxilonge. [Instruction to lie down for examination]
Lie down so I can examination you.
2. P: Ewe. [Agreement]
Yes.

3. D: Uyasithetha isiNgesi? [Enquiry regarding language competence]
Do you speak English?
4. P: Ewe. [Agreement]
Yes.
5. D: Uqale nini ukuba unengxaki yokuphefumla? [Enquiry concerning start of breathing problems]
When did it begin that you have a problem with breathing?
6. P: Iqale izolo. [Answering of question]
It began yesterday.
7. D: Uyakhohlela lomile? [Enquiry about nature of cough]
Do you have dry cough?
8. P: Ewe, ndiyakhohlela izikhohlela ezibutyheli. [Description of nature of cough]
Yes, I am coughing spit that is yellow.
9. D: Unesicaphu-caphu? [Enquiry about vomiting]
Do you vomit?
10. P: Hayi, ndiziva ndinesiyezi. [Response to question]
No, I feel dizzy.
11. D: Zola nje wena ndimamele isifuba. [Instruction to be calm for examination of chest]
Please, be calm to listen to your chest.
12. P: Ewe. [Agreement]
Yes.
13. D: Mingaphi iminyaka yakho? [Enquiry about age]
How old are you?
14. P: Ndinamashumi amabini anesibini. [Answer]
I am 22 years old.
15. D: Kulungile. [Agreement]
Okay.

Cognitive complexity

The segment comprising of sentences 1 – 15 represents the during-examination phase of the consultation. All of the sentences are expressed in the present tense, except for sentences [5] and [6], which are expressed in the past tense. The segment as a whole, therefore illustrates the [+ here-and-now] feature of developmental complexity. One occurrence of causal reasoning is evident in sentence [5] because of the logical subordinator **ukuba**. The questions and responses expressed in this segment, however, pose simple reasoning demands and therefore denotes the [+ no reasoning] feature of developmental complexity. Furthermore, this segment does not contain any locatives, which exemplifies the [+ few elements] feature of developmental complexity. With these features taken into account, this phase characterises a low level of developmental complexity in terms of Robinson's Dimensions of Complexity Model.

This segment further demonstrates a high level of performative complexity. The questions asked in this phase are of vital importance to determine what the cause of the patient's problem is. With the patient's apparent quick responses to these questions, the doctor is left with little time to plan what has to happen next. This denotes the [- planning] feature of performative complexity in terms of Robinson's Dimensions of Complexity Model. Because of the doctor's professional expertise, the [+ prior knowledge] feature of performative complexity is exhibited in this segment. This aids him in performing the multiple tasks of listening to the patient, drawing on prior knowledge, formulating an appropriate response and executing it. These tasks illustrate the [- single task] feature of performative complexity. With all of the features taken into account, it is clear that this segment characterises the second dimension of Robinson's Dimensions of Complexity Model, which is associated with low developmental complexity and high performative complexity.

Syntactic complexity

This segment comprising of sentences 1 – 15, namely the during-examination phase, consists mostly of simple clauses. These sentences express short monoclausal questions and answers, as shown in sentences 2 – 4, 6 – 10 and 12 – 15. Only a few

instances of complex clauses occur in the during-examination phase. In sentence [1], the imperative mood clause **ngqengqa** is followed by a subjunctive mood complement clause **ndikuxilonge**, to denote a purpose clause. Sentence [5] consists of two clauses, the main clause and an indicative complement clause introduced by the complementiser **ukuba**. The imperative mood clause of sentence [11] is followed by a subjunctive mood complement clause denoting a purpose clause. According to Foster *et al.*'s Analysis of Speech Unit Model, this segment exemplifies a low level of syntactic complexity.

Post-examination phase

16. D: Kukho amanzana emiphungeni yakho ngokwengxelo yegesi. [Comment on x-ray results]
There is water in your lungs according to the x-ray results.
17. D: Kufuneka ulale apha esibhedlele sijongane nale ngxaki. [Instruction to be hospitalised]
You will be admitted, for us to be able to look at the problem.
18. P: Kulungile. [Agreement]
Okay.
19. D: Kwenzeka ntoni ukuba ulele ngecala, akukho bhetele? [Enquiry about discomfort when lying on side]
What happened if you lay on the side is it not better?
20. P: Hayi, akukho bhetele. [Response to question]
No, it is not better.
21. D: Wakhe wanaso isifo sephepha? [Enquiry about having tuberculosis in the past]
Did you have tuberculosis before?
22. P: Ewe. [Agreement]
Yes.

Cognitive complexity

The segment comprising of sentences 16 – 22 represents the post-examination phase. These sentences are expressed in the present tense, with the exception of sentences [19] and [21], which respectively occur in the perfectum, and the remote compound A-past tense. Because of these last mentioned sentences, this segment characterises the [- here-and-now] feature of developmental complexity. There is evidence of causal reasoning in three of the sentences that comprise this segment, namely sentence [16], [17] and [19]. These reasoning demands denote the [- no reasoning] feature of developmental complexity. Furthermore, the temporal and spatial referential expressions employed in sentences [16], [17] and [19] characterise the [- few elements] feature of developmental complexity. The features of this segment contribute to it being high in developmental complexity.

The performance complexity of this segment is high in terms of Robinson's Dimensions of Complexity Model. After reaching a conclusion in the during-examination phase, the doctor is left with the task of communicating his thoughts to the patient. Whilst doing this, the doctor thinks of another question to ask the patient. Therefore, it is evident that in this segment, the doctor is performing the dual task of thinking of a diagnosis and communicating. This exemplifies the [- single task] feature of performative complexity. With the tasks happening simultaneously, little time is left for planning, which therefore denotes the [- planning] feature of performative complexity. The doctor's performance is supported by his acquired knowledge because of his professional expertise which exhibits the [+ prior knowledge] feature of performative complexity. Therefore, according to Robinson's Dimensions of Complexity Model, this phase exemplifies properties characteristic of the fourth dimension of cognitive complexity, which is associated with high developmental as well as high performative complexity on the doctor's behalf.

Syntactic complexity

Different levels of syntactic complexity occur in this segment of the dialogue. Sentences [16], [18], [20], [21] and [22] are realised as simple monoclausal sentences, whereas

sentences [17] and [19] demonstrate high levels of syntactic complexity. Sentence [17] consists of three clauses. The verb of the main clause **kufuneka** takes a subjunctive mood complement **ulale**. A further subjunctive mood complement, **sijongane**, occurs and is followed by an associative adjunct phrase introduced by **na-**. In sentence [19], the main clause is followed by an indicative complement clause introduced by the complementiser **ukuba**. This is followed by a consecutive mood complement clause. According to Foster *et al.*'s Analysis of Speech Unit Model, this segment exemplifies a high level of syntactic complexity.

Directive phase

23. D: Kulungile, unghamba nala maxwebhu uwase koonesi. [Permission to go to nurses]
 Okay, you can go with these files to the nurses.
24. P: Kulungile. [Agreement]
 Okay.

Cognitive complexity

The segment comprising of sentences [23] and [24], namely the directive phase, exhibits features characteristic of the first dimension of Robinson's Dimensions of Complexity Model, which is associated with low developmental and low performative complexity. This segment is expressed in the present tense and contains no form of causal reasoning, which respectively illustrates the [+here-and-now] and [+ no reasoning demands] features of developmental complexity. It does, however, contain a spatial referential expression, evident in **koonesi**, which exhibits the [- few elements] feature of developmental complexity. In addition, the standardised directive given by the doctor in sentence [23] requires no planning. The performative features that characterise this segment therefore includes [+ prior knowledge], [+ single task] and [- planning].

Syntactic complexity

In this segment, sentence [24] is realised as a simple sentence expressing agreement. Sentence [23], however, consists of two clauses; the main clause and a subjunctive mood complement clause **uwase**, denoting a successive event. According to Foster *et al.*'s Analysis of Speech Unit Model, this segment exemplifies a high level of syntactic complexity.

3.13.1 Combined summary of analysis of dialogue 9

Phases	Developmental Complexity	Performative Complexity	Dimension	Syntactic complexity
1. Introductory phase				
2. Pre-examination phase				
3. During examination phase	Low	High	2	Low
4. Post-examination phase	High	High	4	High
5. Directive phase	Low	Low	1	High

3.14 DIALOGUE 10

Dialogue 10 is a communication task relating to a patient returning to the hospital to have a cast removed.

Pre-examination phase

1. D: Ubuye namhlanje egesini? [Enquiry regarding purpose of visit]
Are you coming for x-rays today?
2. P: Ewe. [Confirmation]
Yes.

3. D: Zingaphi iinyanga unale samente? [Enquiry with reference to duration of plastered arm]
How many months you have been plastered?
4. P: Yafakwa ngoJuni uyokuma kuJulayi. [Indication of time]
It was put on between June and July.
5. D: Iziphumo zegesi azibonakalisi ngxaki. [Observation regarding x-ray results]
The x-ray results show no problems.
6. P: Kulungile. [Agreement]
Okay.

Cognitive complexity

The segment comprising of sentences 1 – 6 represents the introductory phase of the consultation. It exhibits a low level of developmental complexity in that all of the sentences, except for sentence [4], are expressed in the present tense, which denotes the [+ here-and-now] feature of developmental complexity. In addition, the segment does not display any form of causal reasoning which exemplifies the [+ no reasoning] feature of developmental complexity. Locational references, however, do occur in sentences [1], **egesini**, and [4], **ngoJuni** and **kuJulayi**, which denotes the [- few elements] feature of developmental complexity.

The segment further exhibits a low level of performative complexity on the doctor's behalf. The [- single task] feature of performative complexity is exemplified in this segment, seeing as the doctor has to perform multiple task simultaneously. These tasks include studying the patient's x-rays, asking appropriate questions, incorporating the new information and contemplating an appropriate prognosis. However, because this segment constitutes the beginning of the consultation, the doctor can afford time for planning which displays the [+ planning] feature of performative complexity. In addition, the doctor has an adequate amount of acquired knowledge because of his professional expertise which denotes the [+ prior knowledge] feature of performative complexity. This segment, therefore exemplifies properties characteristic of the first dimension of

Robinson's Dimension of Complexity Model, which is associated with low developmental complexity and low performative complexity.

Syntactic complexity

Sentences 1 – 6 are realised as simple (monoclausal) sentences. In terms of Foster *et al.*'s Analysis of Speech Unit Model, this segment exemplifies low levels of syntactic complexity.

Directive phase

7. D: Uza kuya ethiyetha sisuse isamente. [Instruction to get plaster removed]
You will go to the theatre to remove the plaster.
8. D: Usaziva iintlungu? [Enquiry regarding presence pain]
Do you still experience pains?
9. P: Hayi. [Denial]
No.
10. D: Ungalinda kancinci apha ngaphandle, ndiza kukubiza. [Request to wait outside]
You can wait a moment outside I will call you.
11. P: Kulungile. [Agreement]
Okay.

Cognitive complexity

The segment comprising sentences 7 - 11 represents the directive phase of the consultation. It exhibits low levels of developmental complexity as the sentences are expressed in the present tense and do not contain any form of causal reasoning, which respectively denotes the [+ here-and-now] and [+ no reasoning demands] features of developmental complexity. The segment, however, contains two locative references occurring as a spatial referential expression in sentence [7], **ethiyetha** and a temporal

referential expression in sentence [10], **ngaphandle**. These locatives demonstrate the [- few elements] feature of developmental complexity.

The segment further exhibits a low level of performative complexity since the doctor is required to perform the single task of giving directions. The directives expressed in sentences [7] and [10], and question expressed in sentence [8] are standard and therefore denotes the [+ single task] [+ prior knowledge] and [+ planning] features of performative complexity. This segment exhibits properties that are characteristic of the first dimension of Robinson's Dimensions of Complexity Model, which is associated with low developmental and low performative complexity.

Syntactic complexity

The segment comprising of sentences 7 - 11 varies in its syntactic complexity. Sentences [8], [9] and [11] express short monoclausal questions and answers. Sentences [7] and [10], however, are realised as complex sentences. In sentence [7], the main clause takes on a subjunctive mood complement clause, **sisuse**, which denotes a purpose clause. Sentence [10] consists of two indicative mood clauses. According to Foster *et al.*'s Analysis of Speech Unit Model, this segment exemplifies a high level of syntactic complexity.

3.14.1 Combined summary of analysis of dialogue 10

Phases	Developmental Complexity	Performative Complexity	Dimension	Syntactic complexity
1. Introductory phase	Low	Low	1	Low
2. Pre-examination phase				
3. During examination phase				
4. Post-examination phase				
5. Directive phase	Low	Low	1	High

3.15 DIALOGUE 11

Dialogue 11 is a communication task relating to a patient whose child is having chest problems. The doctor suspects that the child contracted tuberculosis from her grandmother and sends her to have x-ray tests taken.

Pre-examination phase

1. D: Iphi into ebonakalisa ukuba ulwenziwe uvavanyo lwesifo sephepha lo mntwana? [Request for test papers]
Where is the evidence for the test of tuberculosis for the baby?
2. P: Hayi andiyazi, zange kwenziwe nto kulo mntwana. [Denial of tests being done]
No, I don't know, it was never done to this child.
3. D: Wayelapha lo mntwana, kumele ukuba belenziwe kule veki iphelileyo uvavanyo. [Comment concerning tests presumably being done]
The baby was here last week it had to be done last week.
4. P: Zange lenziwe, wanikwa nje amayeza, kodwa usakhohlela nokukhupha. [Confirmation of tests not being done and medicine not working]

The test has not been done, only medication was supplied, but the baby is still coughing and vomiting.

5. D: Mkhulule ndimxilonge. [Instruction to lie baby down for examination]
Please remove the dress for examination.
6. P: Kulungile. [Agreement]
Okay.

Cognitive complexity

The segment comprising of sentences 1 – 6 represents the pre-examination phase of the consultation. This segment displays a high level of developmental complexity in that sentences [3], [4] and [5] are expressed in the past tense, therefore denoting the [- here-and-now] feature of developmental complexity. Furthermore, complex causal reasoning is evident in sentences 1 – 4 exemplifying the [- no reasoning] feature of developmental complexity. The locative references displayed in sentences [2] and [3] exemplify the [- few elements] feature of developmental complexity.

The segment further displays a high level of performative complexity on the doctor's behalf. The tasks that the doctor has to perform simultaneously, which include asking appropriate questions, listening to the patient's responses, drawing on prior knowledge and formulating a prognosis, require a great deal of planning on the doctor's behalf. This respectively exemplifies the [- single task] and [- planning] features of performative complexity. The doctor's professional expertise aids him in performing these tasks and denotes the [+ prior knowledge] feature of performative complexity. The segment therefore displays properties characteristic of the fourth dimension of Robinson's Dimensions of Complexity Model, which is associated with high developmental and high performative complexity.

Syntactic complexity

In this segment, sentence [6] is realised as a simple sentence expressing agreement. Sentences 1 – 5 are realised as complex clauses that, according to Foster *et al.*'s

Analysis of Speech Unit Model, cause this segment to exemplify a high level of syntactic complexity. Sentence [1] consists of two clauses, the main clause and an indicative mood complement clause introduced by the complementiser **ukuba**. The main clause itself is complex as the verb **-bonakalisa** takes on the relative mood. In sentence [2], the negative verb of the main clause takes an indicative mood complement clause introduced by the deficient verb **zange**. Sentence [3] consists of three clauses, the main clause which has a verb in the remote compound past tense and two consecutive mood complement clauses. In the first consecutive clause the deficient verb **-mele** requires the conjunction **ukuba** which itself introduces a subordinate situative mood complement occurring as **belenziwe**. Sentence [4] consists of four clauses, the main clause and three consecutive clause complements expressing the narration of events by the patient. In sentence [5] the imperative mood main clause in itself is complex as the verb, **mkhulule**, occurs in the subjunctive mood. It is followed by another subjunctive mood clause complement, **ndimxilonge**, denoting a purpose clause.

Post-examination phase

7. D: Isifuba sakhe sibonakala sinengxaki. [Comment concerning child's chest]
Her chest looks terrible.
8. P: Ewe. [Agreement]
Yes.
9. D: Umzimba wakhe uhlile? [Enquiry regarding weight-loss]
Did she lose the weight?
10. P: Ewe. [Confirmation]
Yes.
11. D: Ingaba ukhona omnye umntu onesifo sephepha ekhaya? [Enquiry whether someone at home has tuberculosis]
Is there any family member who has or had been infected with tuberculosis?
12. P: Ewe, ukhona umakhulu wakhe. [Confirmation]
Yes, her grandmother.

13. D: Umntwana ke uza kulaliswa. [Statement informing parent that child will be hospitalised]
The child will then be hospitalised.
14. Uza kwenziwa uvavanyo kwakhona. [Information regarding future procedures]
She will do tests again.
15. Unosuleleko esifubeni yiyo le nto kunzima ukuphefumla. [Explanation regarding breathing difficulties]
The infection in her chest is the reason it is difficult to breathe.
16. P: Kulungile. [Agreement]
Okay.

Cognitive complexity

The segment comprising sentences 7 – 16 represents the post-examination phase of the consultation. These sentences are all expressed in the present tense which denotes the [+ here-and-now] feature of developmental complexity. Causal reasoning occurs in this segment in sentences [11] and [15] and denotes the [- no reasoning] feature of developmental complexity. The spatial referential expressions, **ekhaya** and **esifubeni**, which respectively occur in sentences [11] and [15] exemplifies the [- few elements] feature of developmental complexity. These features result in this segment exhibiting a high level of developmental complexity.

The segment further exhibits a high level of performative complexity in that the doctor has to perform multiple tasks simultaneously in a limited period. These tasks include bearing in mind the results gathered from the x-rays, asking appropriate questions to determine the cause of the problem, incorporating newly gathered information, drawing on prior knowledge and making an informed diagnosis. Therefore, this segment displays the following features of performative complexity, namely, [- single tasks], [- planning] and [+ prior knowledge]. Hence, this segment exemplifies properties characteristic of the fourth dimension of Robinsons Dimensions of Complexity Model,

which is associated with high developmental complexity and high performative complexity.

Syntactic complexity

This segment is mostly comprised of simple clauses expressing questions, statements and answers. Sentences [11] and [15], however, are realised as complex sentences. Sentence [11] consists of two clauses, the main clause and a relative clause complement, **onesifo**. In sentence [15], the main clause is followed by the conjunction **yiyo le nto** introducing an indicative mood clause complement of which the copulative adjective **kunzima** takes an infinitive clause complement, occurring as **ukuphefumla**. According to Foster *et al.*'s Analysis of Speech Unit Model, this segment as a whole exemplifies a low level of syntactic complexity.

Directive phase

17. D: Ungaya ngqo egesini ngoku, ndilandele. [Instruction to go to x-rays]
You can go straight to the x-ray room now, I will follow.
18. P: Kulungile. [Agreement]
Okay.

Cognitive complexity

The segment comprising of sentences [17] and [18] represents the directive phase of the consultation. Despite the spatial referential expression **egesini** in sentence [17], which demonstrates the [- few elements] feature of developmental complexity, this segment exhibits a low level of developmental complexity. The sentences are expressed in the present tense and contain no form of causal reasoning which respectively denotes the [+ here-and-now] and [+ no reasoning] features of developmental complexity.

This segment further displays a low level of performative complexity in that the doctor has to perform the single task of directing his patient where to go. This standard

procedure denotes the following features of performative complexity, namely, [+ single task], [+ planning] and [+ prior knowledge]. In terms of Robinson's Dimensions of Complexity Model, this segment exemplifies properties characteristic of the first dimension of complexity, which is associated with low developmental as well as low performative complexity.

Syntactic complexity

In this segment, sentence [17] is realised as a complex clause. It consists of two clauses, the main clause and a subjunctive mood clause complement denoting a successive event. Sentence [18] is realised as a simple sentence expressing agreement. Therefore, according to Foster *et al.*'s Analysis of Speech Unit Model, this segment exemplifies a high level of syntactic complexity.

3.15.1 Combined summary of analysis of dialogue 11

Phases	Developmental Complexity	Performative Complexity	Dimension	Syntactic complexity
1. Introductory phase				
2. Pre-examination phase	High	High	4	High
3. During examination phase				
4. Post-examination phase	High	High	4	Low
5. Directive phase	Low	Low	1	High

3.16 DIALOGUE 12

Dialogue 12 is a communication task relating to a patient revisiting the doctor because of an ongoing medical problem, which could be tuberculosis.

Pre-examination phase

1. D: Yintoni ebangele ukuba ubelapha? [Enquiry regarding previous visit]
What was the reason that you were here?
2. P: Bendilapha kule veki iphelileyo, ndenziwa uvavanyo lwesifo sephepha, ndanikwa ibhotilana zokukhuphela izikhohlela; ndaxelelwa ukuba ndize nazo namhlanje. [Provision of reason for previous visit]
I was here last week, I was tested for tuberculosis, I was given some bottles to put phlegm into; I was told to come back with the bottles today.
3. D: Ziphi ezo bhotile ngoku? [Enquiry about specimen bottle]
Where are the bottles now?
4. P: Nazi! [Identification of artefact]
Here, they are!
5. D: Ukhohlo-khohlo bhetele ngoku? [Enquiry about improvement]
The cough is better now?
6. P: Ewe, ubhetele kakhulu. [Confirmation of improvement]
Yes, it is very better.

Cognitive complexity

The segment comprising of sentences 1 – 6 represents the pre-examination phase of the consultation, with sentence [2] bearing the characteristics of the narrative phase. In this segment, sentences [1] and [2] are expressed in the recent compound past tense. Causal reasoning occurs in the patient's narration of events in sentence [2] that happened during her previous visit. Sentence [2] furthermore contains a temporal referential expression, **kule veki iphelileyo**. Hence, sentences [1] and [2] exhibit [- here-and-now], [- no reasoning] and [- few elements] features of developmental complexity. Sentences 3 – 6 however, are comprised of short monoclausal questions and answers. These sentences are expressed in the present tense denoting the [+ here-and-now] feature of developmental complexity, they do not contain causal reasoning which exemplifies the [+ no reasoning] property of developmental complexity,

and they do not contain complicated spatial referrals which exhibits the [+ few elements] property of cognitive complexity. The properties of this segment as a whole, however, exhibit characteristics of high developmental complexity in terms of Robinson's Dimension of Complexity Model.

This segment further exemplifies a high level of performative complexity since the doctor has to perform multiple tasks simultaneously. The doctor needs to listen to the patient, draw on his acquired knowledge and formulate an appropriate response. This denotes the [- single task] feature of performative complexity. The performative complexity of the pre-examination and narrative phase further exhibits the property of [- planning] seeing as (apart from the narrative in sentence [2]) the phase is comprised of short questions and answers expressed. Therefore, the doctor has to rapidly sum up the situation and ask suitable questions to assess it. Although the doctor does not have prior knowledge of the specific patient, he knows the procedure that is taking place and is therefore familiar with the context of the conversation, denoting the [+ prior knowledge feature of performative complexity. In terms of Robinson's Dimensions of Complexity Model, the pre-examination and narrative phase exhibit characteristics of the fourth dimension of complexity, which is associated with high developmental complexity and high performative complexity.

Syntactic complexity

In this segment of the dialogue, sentences 3 – 6 are realised as simple (monoclausal) sentences. Sentences [1] and [2], however, exemplify characteristics of complex sentences. Sentence [1] consists of two clauses, the main clause, which in itself realises a relative mood copulative clause **engunobangela**, and an indicative mood complement clause introduced by the complementiser **ukuba**. Sentence [2] exemplifies the syntactically complex narrative phase of which the main clause is followed by three consecutive clause complements expressing the narration of the events that lead up to the patient's return to the doctor. According to Foster *et al.*'s Analysis of Speech Unit Model, this segment exhibits a high level of syntactic complexity.

Directive phase

7. D: Kulungile ke. [Agreement]
Okay then.
8. D: Kufuneka uphinde ubuye kule veki izayo ngomhla we-12. [Instruction to return the following week]
It is necessary that you must come back next week on the 12th.
9. P: Kulungile. [Agreement]
Okay.
10. D: Ungagoduka ngoku, ndigqibile ngawe. [Instruction to go home]
You can go home now; I am finished with you.
11. P: Kulungile. {Agreement]
Okay.

Cognitive complexity

The dialogue segment comprising of sentences 7 – 11 represents the directive phase of the consultation. These sentences are all expressed in the present tense denoting the [+ here-and-now] feature of developmental complexity. This segment furthermore exhibits the [+ no reasoning] feature of developmental complexity in that it does not contain complex causal reasoning elements. Therefore, except for the two temporal referential expressions in sentence [8], **kule veki izayo** and **ngomhla**, that denotes the [- few elements] feature of developmental complexity, this phase exemplifies a low level of developmental complexity as stipulated by Robinson in his Dimensions of Complexity Model.

In addition, this segment exhibits a low level of performative complexity in that the doctor is required to perform the single task of expressing future proceedings. The instructions expressed by the doctor in sentences [8] and [10] are standard and therefore requires little planning on the doctor's behalf. Therefore, the features of performative complexity exemplified in this segment of the dialogue are namely, [+ single task], [+ prior

knowledge] and [+ planning]. According to Robinson's Dimension of Complexity Model, this phase exemplifies properties characteristic of the first dimension, which is associated with low developmental and low performative complexity on the doctor's behalf.

Syntactic complexity

In this segment, sentences [7], [9] and [11] are realised as simple sentences expressing agreement. Sentences [8] and [10], however, exemplify a higher degree of syntactic complexity. In sentence [8], the main clause verb **kufuneka** takes on a subjunctive mood complement clause with the deficient verb **-phinda**, which itself requires a subjunctive mood complement clause occurring as **ubuye**. Furthermore, sentence [10] consists of two indicative mood clauses. According to Foster *et al.*'s Analysis of Speech Unit Model, this segment exemplifies a high level of syntactic complexity.

3.16.1 Combined summary of analysis of dialogue 12

Phases	Developmental Complexity	Performative Complexity	Dimension	Syntactic complexity
1. Introductory phase				
2. Pre-examination phase	High	High	4	High
3. During examination phase				
4. Post-examination phase				
5. Directive phase	Low	Low	1	High

3.17 CONCLUSION

The Xhosa dialogues examined in this chapter have all been analysed in three different ways. The three-part analysis consisted of examining each segment of a dialogue according to the properties that characterise its developmental, performative and syntactic complexities. The developmental and performative complexities were analysed in accordance to Robinson's Dimensions of Complexity Model, explained in section 3.2 of this chapter. The syntactic complexity of each dialogue was analysed according to Foster *et al.*'s Analysis of Speech Unit Model, described in section 3.3 of this chapter.

Each dialogue was followed by a table comprising of information regarding the specific dimensions of complexity that surfaced in the various segments that comprised it. By examining these tables, there seems to be a clear correlation between the cognitive complexity and the syntactic complexity of the various dialogue segments. This confirms Robinson's hypothesized notion that task demands that are increased along resource-directing (developmental) and resource-dispersing (performative) dimensions of complexity, will result in a greater level of accuracy and fluency in the production of the target language. Here, the level of accuracy was determined by the syntactic complexity of the comprising sentences of each segment.

It should be noted that there are cases where the cognitive complexity of a segment does not correlate with the syntactic complexity of the same segment. This could be attributed to the criterial features used to classify segment as a whole according to its properties of complexity. If, however, one closely investigates the sentences comprising each segment, the correlation between the various sentences' complexities will be evident. Even though situations may not always be consistent with this conclusion, the frequency of occurrence supports the view that this hypothesized notion to be true.

CHAPTER 4

SUMMARY AND CONCLUSION

Chapter four aims to provide a review of the main findings presented in this study regarding the research field of task-based language learning and pedagogy. This chapter will be divided into five broad research areas related to second language learning and teaching and according to which this thesis was conducted. This chapter will then be concluded with a section concerning the implications that this study holds for the learning and teaching of isiXhosa for specific purposes.

4.1 THEORIES AND PERSPECTIVES REGARDING A TASK-BASED APPROACH TO LANGUAGE TEACHING

The first examined research area of this study was presented in section 2.1 of chapter two. Here, a broad overview of the move towards a task-based teaching approach to language learning and teaching as well as various central issues related to task-based theory and pedagogy was given. Research proved that the popularity of a task-based teaching approach to language learning emerged as a result of teachers and researchers recognizing the shortcomings of traditional language teaching approaches, such as the presentation, practice and production approach. Followers of this new form of communicative language teaching were of mind that learners should be actively involved in constructing their own learning environment and subject matters to be taught. In addition to this, researchers such as Nunan (2003), Edwards and Willis (2005) and Ellis (2003, 2005) noted that learners should be free to perform classroom activities and complete tasks by any means possible, and that the teacher's responsibility in this was merely to facilitate and motivate learners.

Section 2.1.2 of chapter two was aimed at producing a single and clearly defined definition for the term *task*, seeing as the task represents the key feature in the task-based language teaching approach. Nunan (2003), however, noted that no such definition existed. He stated that this was because task designers make use of tasks in

different situations and for different purposes. In spite of this, this study revealed that researchers have all agreed that a task should contain certain characteristics, such as the use of communicative language and that a task's primary focus is on meaning, rather than form. Section 2.1.2 also evaluated the usefulness of typifying tasks and manipulating certain tasks' variables in order to affect the acquisitional process involved in second language learning. A notable study was that of Edwards and Willis (2005), in which they subdivided pedagogic tasks into six categories and argued that by being able to distinguish between these task types, and by implementing them separately, teachers and researchers would be given insights as to how effective a task could be in promoting second language learning. The mentioned task types were associated with a) the occurrence of a specific language function in the task; b) the cognitive processes involved in performing the task; c) the task topic; d) the required language skills needed to complete the task; e) whether the task was closed- or open-ended and f) the type of interaction the task required. Edwards and Willis (2005) further suggested that the manipulation of task variables manifested in these task types, would have the potential of focussing learners' attention on specific features of the linguistic system. These variables were argued to be connected to the structure of the task, the learner self, and the cognitive demands of the task.

In section 2.1.3 of chapter two of this study, the different processes argued to be involved in language learning were discussed. As put forward in the works of researchers Nunan (2003), Ellis (2003) and Edwards and Willis (2005), a number of psycholinguistic models that account for the learning and acquisition of language were examined. The search resulted in the theoretical conclusion that for language learning and acquisition to occur, four elements are needed. The first is related to the issue of receiving comprehensible input when conversing in the target language. This was derived from the views that were advanced in Krashen's Input Hypothesis and Long's Interaction Hypothesis. The second suggested element that is needed for language learning and acquisition was that of production, or as Swain called it, output. This notion originated from Swain's Output Hypothesis. In it, Swain hypothesizes that output is not only an indication of learning that has taken place, but also an indication of learning in

progress as learners are forced to produce language under pressured circumstances in which they would often correct themselves when they realise that a mistake has been made. The third element concerns the necessity of social interaction in the language learning and acquisitional processes, as stipulated in various socio-cultural perspectives, put forward in Ellis (2003) and Edwards and Willis (2005), regarding language learning. Lastly, it was noted that various methods could be used to channel a learner's interlanguage system in order to influence three main aspects of second language production, namely that of fluency, accuracy and complexity. This notion was derived from Skehan's cognitive perspectives on language learning and processing.

Last mentioned introduced a controversial feature of task-based language teaching, namely focus-on-form. This issue was examined in section 2.1.4 of chapter two and it was found that there is a definite need for some form of language focus throughout the process of acquiring a second language. To incorporate such a focus into the task-based approach to language teaching, the issue of focused and unfocused tasks, as postulated by researchers Nunan (2003), Edwards and Willis (2005) and Ellis (2003), was discussed. It was argued that both of these task types influenced language learning in different ways. Moreover, although it might have seemed that the use of focused tasks marked a return to traditional language teaching methods, the difference was shown in their different methods of implementation. As opposed to that of the traditional approach to language teaching, the language focus that occurred in focused tasks was shown to be either incidental and unconscious or slightly noticeable by the learners. Furthermore, the advantages of using focused tasks were proved undisputable, as they have the ability to aid processes of automatization as well as implicit learning.

Chapter two furthermore explored issues relating to the design and implementation of a framework for task-based language teaching in the language classroom. The framework used was that of Jane Willis, as put forward in Skehan (1998). The framework divided the classroom activity of performing a task into three main stages, namely the pre-task phase, the task cycle and the language focus phase. In short, the

pre-task phase served as a way of attracting learners' attention and awakening their pre-existing knowledge of the task at hand. Willis argued that this would serve to activate certain cognitive processes in learners, which would make them more adept to focus on certain elements when performing the task. It was shown that within the task cycle phase, learners had the opportunity to plan their actions prior and during the performance of the task. Willis argued that this would offer learners the opportunity to contemplate and use various known methods to complete the task. Thereafter, the language focus phase would follow, in which learners and teachers have the opportunity to collaboratively discuss and work on issues that were raised during or after the presentation of a task. This would have the effect of reassuring learners' thoughts on certain aspects of the language and ultimately aid them in making new and important form-meaning connections.

In the next section of this chapter, the main findings of section 2.2 of this study, relating to the psycholinguistic processes involved in learners developing their interlanguage systems, will be reviewed. Section 2.2 also includes discussions regarding the abilities of learners to access, stretch and use their individual interlanguage systems in real life communication situations.

4.2 THE PSYCHOLINGUISTIC PROCESSES INVOLVED IN LANGUAGE LEARNING AND LANGUAGE USE

The main issues that were examined in this section of chapter two can be divided into two interrelated categories. The first concerns the theorised processes that are involved in the learning of a second language, and the second concerns the actual production of the target language and its role in language acquisition.

Regarding the first issue, Skehan (1998) found that a system, called the human information processing system, operated in three interconnected stages. As discussed in section 2.2.1.1 of chapter two, the first stage related to the management of the input or information that has to be understood before one could progress to a stage of

planning what needs to happen next. Research suggested that this initial stage of language processing could be connected to the two memory systems that each human possesses, called the short-term memory and the long-term memory. This study revealed that information that was temporarily stored in the short-term memory would serve as a trigger for connected information, stored in the long-term memory, to be activated. This provided evidence that these two systems interacted with each other and that this interactiveness could account for learners stretching their knowledge of the target language and the rapid accessing of information stored in the long-term memory system. The downfall that Skehan (1998) noted in relation to the input management stage was the limited processing capacity capabilities of the short-term memory system. Therefore, humans are believed to extract only the most relevant information to be temporarily stored in this memory system. The means of how humans choose which information is to be placed into the short-term memory was shown to be related to four contributing factors. These factors include the learner self, the different task demands, whether the input is focused or not and lastly, the quality of the input.

In section 2.2.1.2 of this study, questions relating to the central processing stage, in which input was seen to be converted to intake and weighed up against two representative language systems called the rule-based system and the exemplar-based systems, were examined. This study supported Ellis' statement regarding the coexistence of these two systems, and that learners do in fact draw on both of them in the process of understanding what was said and in preparing for their production. That is to say, learners need to be able to draw on ready-made formulaic chunks of the target language to cope with the time constraints and demands of real-time processing. However, for these chunks to be interpreted in a sensible manner, learners need to draw on their rule-based knowledge of the systems operating in the target language. The use of these systems with the intention of coping with the pressures of speaking the target language constitutes the final phase of the human information processing system, discussed in section 2.2.1.3, namely the language production phase.

This stage is also related to the second category of this study, namely the actual production of the target language and its role in language acquisition, as examined in section 2.2.2 of chapter two. This section begins with a curious statement in which it is proposed that language production could actually lead to language acquisition. To validate this statement, Ellis (2003) advanced the views of Skehan and Swain who, on separate occasions, suggested that six roles of production could be identified. The first mentioned role of production was to produce or generate better input. This related to the process of negotiation of meaning, which proposes that in a communication situation, a dialogue exists in which the participants exchange meaning in order to resolve non-understandings. As a result, learners will be exposed to modified texts, which would aid them in correcting their own language, thus resulting in a possible restructuring of their interlanguage repertoire. The second mentioned role of production was that it forces syntactic processing. This notion was based on the belief that syntactic processing is a necessary construct in language learning. Regarding this topic, research showed learners not having a clear understanding of certain salient linguistic features of the target language would only have a superficial grasp of it. The third role of production stated that production allows learners to test out hypothesis regarding the target language's grammar. A correlation was shown to exist between the third and second role of production, in that learners are now given the opportunity to use the acquired grammatical system (syntactic processing) and experiment ways in which it can be applied (testing target language's grammar). The fourth role proposed that production helps with the automatization of existing explicit second language knowledge in the sense that learners have the opportunity to practice their declarative knowledge of the language. The fifth role stated that production aids in providing opportunities for learners to develop various discourse skills. The sixth role of production suggested that it helps learners to develop a "personal voice". This was connected to learners building up their confidence when they produce language in the target language. After a brief discussion of each of these roles, it was confirmed that all of them, whether in a direct or indirect manner - contributed to acquisition. Thus, it was made clear that production does indeed play a role in language acquisition, seeing as production urges learners to make the effort to speak and modify their utterances if need be.

In the next segment of this summary, the subject matter of planning is revised.

4.3 PLANNING

Section 2.3 of this study investigated planning as a manipulable task variable used in the task-based approach to language teaching. The relevance of including planning as a subject matter in this chapter was because of the strengthening effect it has on production and language acquisition. In section 2.3.1 of chapter two, the different effects that planning has on three central concepts involved in language production, namely attention and noticing, a limited working memory capacity and focus-on-form were examined. The first of these concepts showed that planning has an indirect influence on language acquisition in terms of attention and noticing. This relationship was determined by looking at the direct relationship between planning and output. The subsequently raised question was whether output then could be connected with attention and noticing. This relationship was confirmed in Swain's Output Hypothesis, discussed earlier in section 2.1.3 of chapter two. Therefore, it was argued that because planning has a direct influence on output and output has a direct connection with attention and noticing, planning would have an indirect influence on attention and noticing.

The second concept discussed in section 2.3.1 related to the limited capacity of the working memory system. Here, Ellis (2005) referred to a model proposed by Baddely, in which it was argued that the working or short-term memory system was comprised of two components on which planning could have a strengthening effect. The first proposed component regarded the presence of a central executive or supervisory attentional system. The second proposed component was that of a phonological loop operating in the working memory system. In both instances, it was concluded that the affordance of planning time would help lessen the processing load on the working memory. This would then result in learners having more time to pay conscious attention to forms made salient by the input and that learners have time to recall weakened materials so that they become durable again.

The last concept was the principle of focus-on-form. Here, Ellis (2005) argued that second language acquisition required an explicit focus-on-form for the duration of their language learning process. Ellis produced two reasons for this to be true. He first argued that when in a real-life communication situation, learners would choose to attend to meaning over form, because of the limited capacity of the working memory. The second reason was that interlanguage development could only take place if learners attend to form while they are attending to meaning. Ellis argued that by doing this, learners would make important form-meaning connections, which would make the input more relevant and understandable. The conclusion was that by affording learners time to plan before or during the performance of a task, learners would be able attend to both form and meaning and not prioritise the one over the other.

In reaching these conclusions regarding planning, it was necessary to look at the types of planning that was available for language teachers to use. These planning types were discussed in section 2.3.3 of chapter two. Ellis (2005) distinguished between two principle types of planning, namely pre-task planning and within-task planning. It was argued that each of these planning types had the potential to elicit one or more of the three dimensions of language production and by doing so influence the quality and quantity of the learner's second language production. This study found that in pre-task planning, task rehearsal affected the fluency and complexity of a learner's production. This was credited to learners focussing on the message content of the task in the first rehearsal of it and then switching their attention to the selection and monitoring of appropriate language use in the rehearsal of the task. The other form of pre-task planning that was researched is called strategic planning. According to Ellis (2005), this type of planning entails that learners take into account the content related to the task that they are preparing to perform as well as the ways in which they will need to be able to express such content. Studies regarding strategic planning, as put forward in section 2.3.3.1.2, found that it had an effect on all three dimensions of production that is accuracy, fluency and complexity.

In section 2.3.3.2, two methods of within-task (also called on-line) planning was investigated, namely pressured- and unpressured within-task planning. Research revealed that the extent to which a task is seen as pressured or unpressured was achieved by manipulating the time made available for learners to perform a task on-line. It was noted that pressured online planning resulted in learners producing language that is more accurate. This was attributed to the limited capacity for storing information of the short-term memory system. In light of this, it was theorised that a person would need to prioritise some planning processes over others during pressured within-task planning, and so resulting in accuracy. Unpressured within-task planning, however, proved to be less taxing on the working memory because of learners having time to plan whilst computing messages and utterances during which only the most relevant and necessary systems will be activated. Ellis therefore claimed that by increasing the opportunity for within task planning, learners would most likely speak more slowly, but also more fluently and that for the same reason, learners would produce language that is more complex.

The final comment that was made was that with the clear effects that planning has on language production and acquisition, teachers should implement both pre- and within-task planning as two mutually exclusive units that can be manipulated to increase fluency, accuracy and complexity in a learner's production of the second language.

4.4 TEACHING COURSES DESIGNED FOR SPECIFIC PURPOSES

This subject matter, as discussed in section 2.4 of chapter two, is mainly concerned with the ideas and options that inform the teaching of a language course designed for specific purposes. In the introduction, it was made clear that such a course can prove to be very valuable to its learners, seeing as it is to the point and has the ability to take place in a short amount of time. The larger part of the research conducted around this topic regarded a framework that Helen Basturkmen (2006) developed for researching ideas and options in English for specific purposes. This framework was based on ideas concerning the nature of language, learning and teaching and informed by the concepts

described in Stern's as well as Richards and Roberts' frameworks for language teaching.

The first part of Basturkmen's framework focused on the nature of language in language courses designed for specific purposes. She proposed that the nature of language could be understood according to the language systems that operate in it, as well as the various uses of a language. Three different language systems were discussed, namely grammatical structures, core vocabulary and patterns of text organization. The purpose of this discussion was to make the teacher aware of what these systems entail and how they function. In discussing the uses of language, two matters were investigated, namely speech acts and genres. Both of these language functions were observed in the analysis of the authentic isiXhosa dialogues included in chapter three of this paper. Basturkmen (2006) argued that by understanding these uses of language, teachers and course designers would become more adept at making the right choices when deciding on and compiling course content aimed at teaching languages for specific purposes. This study revealed that speech acts, as examined in section 2.4.2.1.2 of chapter two, referred to the communicative intentions of individual speakers. This could be further defined as the reason for which the speaker uses the language, such as making a request or apologising. Thus, it is argued that speech acts are universal and occur in all languages. Genres, on the other hand, were described as the language use and type of communication that occurs in particular groups or communities. Genres therefore differ from speech acts, seeing as they are more specific and socially derived according to the community in which it functions. In view of this, Basturkmen (2006) maintains that a genre-based teaching approach is best suited for a class of learners who aim to enter into the same community.

The second part of Basturkmen's framework, as examined in section 2.4.2.2.1 of chapter two, concerns the nature of learning. Here, the conditions and the processes involved in language learning were examined. It was found that learning conditions were influenced by two theories, namely that of acculturation and of input and interaction. It showed that the first mentioned was concerned with the social interactions

that lead to language learning, and that the second was concerned with the linguistic accounts that lead to language learning. The processes believed to be involved in language learning were that of information processing and the activity theory. These processes demonstrated the importance of learners engaging in cognitive processes and mental activities when learning a language. It furthermore drew attention to the learner's ability in constructing his or her own learning environment and determining how he or she will go about learning a language.

The third part of Basturkmen's framework concerned the nature of teaching a language course designed for specific purposes. Here, various objectives regarding language education and teaching language for specific purposes were discussed. The conclusion was that teachers needed to be aware of these objectives, seeing as they have the potential to focus a learner's attention on specific features of the target language. These objectives included proficiency objectives, knowledge objectives – which were subdivided into linguistic- and cultural knowledge objectives - and affective objectives.

4.5 AN ANALYSIS OF COMPLEXITY IN AUTHENTIC DIALOGUES REGARDING DOCTOR-PATIENT CONVERSATION

In chapter three, an analysis was performed on authentic doctor-patient conversations in isiXhosa. The aim of this analysis was to establish the relationship that exists between what researchers Robinson and Foster *et al.* respectively defined as cognitive complexity and syntactic complexity when certain task demands are increased. Chapter three began with summaries of Robinson's article, *Cognitive Complexity and Task Sequencing: Studies in a Componential Framework for Second Language Task Design*, and Foster *et al.*'s article *Measuring Spoken Language: A Unit for All Reasons*. These articles revealed important notions and theoretical considerations according to which the analysis was then conducted. In Robinson (2005), theoretical considerations regarding cognitive complexity, many elements of task-based language teaching as well as the cognitive processes that are involved in language learning and acquisition were discussed. However, the main conclusions that resulted from this summary, which

proved relevant for the aims of analysis, concerned the manipulation of two dimensions of complexity. These two dimensions were termed resource-directing (developmental) and resource-dispersing (performative) dimensions of complexity. Robinson (2005) argued that the first mentioned could be linked to the *development* of a learner's interlanguage repertoire. The manipulation of this dimension showed an increase in the conceptual and linguistic demands that tasks made on communication. Thus, Robinson hypothesized that this would stimulate language development and force learners to extend their second language repertoire. The manipulation of resource-dispersing dimensions of complexity proved to increase the demands that were made on learners to access their existing second language repertoire. As a result, it was put forward that this would have a direct effect on the learners' *performance*. Robinson then developed a framework based on these notions. This study implemented this framework, which allowed for dialogue segments to be characterised according to their developmental (resource-directing) and performative (resource-dispersing) complexity. These dimensions were then measured up against the syntactic complexity evident in each segment of each dialogue that was analysed.

The syntactic complexities present in each dialogue were determined by the use of Foster *et al.*'s Analysis of Speech Unit Model. The motive behind Foster *et al.* developing this model was to aid researchers in their search to measure the frequency of particular discourse features and to quantitatively measure the frequency as to which certain dimensions such as relative grammatical accuracy, syntactic complexity and fluency appears in language data. In order to measure such phenomena, researchers needed to segment language data into smaller units. The problem that Foster *et al.* noted was that there was guidance as to how this activity should be conducted. For this reason, Foster *et al.* comprised a unit that was clearly defined, explicit and exemplified, psycholinguistically valid and one that could be applied to a wide range of oral data. Foster *et al.* defined the Analysis of Speech unit as a single speaker's utterance that consists of an independent clause or sub-clausal unit, along with any subordinate clause(s) that could be linked with either. Then also, this definition was applied in the analysis of the authentic medical dialogues in chapter three.

4.6 IMPLICATIONS FOR THE FIELD OF SECOND LANGUAGE LEARNING

Language researchers and theorists have forever been trying to conceptualise the phenomenon of language and the acquisition thereof. Different fields of study stretch from the origin of language in humans, to the most efficient ways of acquiring language – be it first or second language. The implications that this study holds for the field of second language learning and teaching, with specific referral to learners of isiXhosa forming part of the Health Sciences discipline, is plentiful. These implications directly influence the traditional roles of the language learner and teacher, as well as the manner in which a language is taught. Hence, the implications of this study on these subjects will be discussed accordingly.

This study showed that the task-based approach to language learning called for language learners to be actively involved in the task selection process and the actual performance of tasks in the classroom. This implies that learners should not be seen as passive listeners who practice demonstrated language structures in the language classroom. Task-based theory suggests that learners should be able to apply their individual interlanguage knowledge to effectively complete the given task and reach the desired outcomes. As stipulated in this study, this does not mean that there is no room for language focus in the classroom. Task-based theory merely postulates that teachers develop tasks in which certain linguistic features are salient and a necessary construct needed for the effective completion of the task. This approach to language teaching also places more responsibility into the hands of the learners regarding their own language development. The implication is that learners will need to be attentive in the language learning classroom and come to realize that they must continuously build on newly acquired information. Since there is no form of explicit language teaching forming part of a strong approach to task-based language teaching, learners who fail to notice and take in the objectives of the task, will be at risk of falling behind. This increase in responsibility, however, does not imply that the teachers' workload is lessened within a task-based approach to language teaching.

Although it may not seem so, this approach in reality requires a lot of participation and preparation from the teacher. This could be attributed to the fact that a task-based approach to language learning and teaching is based on a theory of language learning and not language form. This implies that teachers need to have a clear understanding of the processes activated during language learning and know how to implement this in the language classroom. The conclusions that were reached concerning the psycholinguistic theories discussed in chapter two of this study, have clear implications for the second language teacher regarding the task selection and implementation process. The first conclusion entails that teachers choose tasks that would supply language learners with adequate amounts of comprehensible input. These tasks should be of a communicative nature, seeing as comprehensible input was proven to be best achieved by interaction. Moreover, the implication of exposing learners to this type of input is that learners will produce what was termed *modified output*. This indicates that learners have become aware of shortcoming linguistic features in their interlanguage repertoire. Consequently, the interactiveness of the negotiation process has proven to force the learner to stretch his or her interlanguage knowledge, resulting in language development. Provided that the teacher has sufficient knowledge of these issues, task-based theory claims that the interlanguage development taking place, can furthermore be channelled to positively affect the fluency, accuracy or complexity of learners' language production. This study has proven that the implementation of planning, whether it be it pre-task or within-task planning, as a manipulable task variable has the ability to do just that.

An important conclusion reached in this study can be related to task content. This study provided evidence that various components of cognitive complexity and syntactic complexity could be found within the different macro-generic move structures of authentic language texts. Moreover, the analysis conducted in chapter three of this study proved that a correlation existed between the dimensions that comprise cognitive- and syntactic complexity as they appeared in the various segments of the analyzed dialogues. This is a critical piece of information, which informs the process of sequencing tasks within a task-based approach to language teaching. The findings

obtained from the conducted analysis in chapter three, assert that tasks in the second language classroom should be sequenced according to the complexity of it. Beginners would typically start their language course with fairly uncomplicated tasks and move on to more complicated ones as they build up their interlanguage repertoire. This is not to say that learners will not be exposed to complicated tasks in the early stages of their learning process. This study has postulated that increasing the complexity of tasks leads to learners further developing their interlanguage knowledge and production skills. This is because of the theorized notions that complex tasks push learners to draw extensively on their internalized language systems to cope with the higher processing demands of these tasks. This then causes learners to increase the amount of negotiation and interaction that they engage in, which ultimately leads to them noticing salient features of the target language, thus expanding their interlanguage repertoire.

The final comment to be made regarding the implications that this study holds for second language teaching relates to the designing of a language course for specific purposes. What is language? In answering this question, a group of aspirant second language learners of isiXhosa would most probably suggest that a language is words that are strung together or that a language is one's way of communicating. Learners, however, always neglect to see that a language also represents a culture, a group of people bound together by their dialect. Studies have shown that it is impossible to learn a second language and be a competent speaker of it, if the target language being taught is removed from the context from which it originated. Unfortunately, this is the case in many language-teaching classrooms over the world. This study, however, provided various options as to how language teachers could avoid this from happening. The main findings that have a substantial impact on the field of second language learning and teaching will consequently be discussed.

Research has shown that learners who participate in a language course developed for specific purposes have limited time to their disposal. This implies that when such a course is put together, teachers need to keep this in mind and figure out the best and most time-efficient way to teach learners key features of the language. The best way of

doing this is to conduct a needs analysis in order to see what exactly learners will want or aim to be able to do after completing the language course. These needs should then be sequenced and presented in the form of tasks to comprise the language course. In the field of Health Sciences, learners would most probably want to know certain commands related to the physical examination of a patient, the prescription of medicine and more. Small talk regarding the weather outside would most definitely not be high up on their list of priorities of things that they would need to say! Advancing the view of task-based theory, the tasks included in a language course developed for specific purposes should represent a real-world occurrence to which the learners can relate. This provides learners with the opportunity to practice what they will need to be able to do in the real world, in the safety and comfort of the classroom. The benefit of this is that learners are able to see how first language speakers of the target language express themselves in real-world situations, which relates to the notion of speech acts and genres that were postulated in the last section of chapter two of this study.

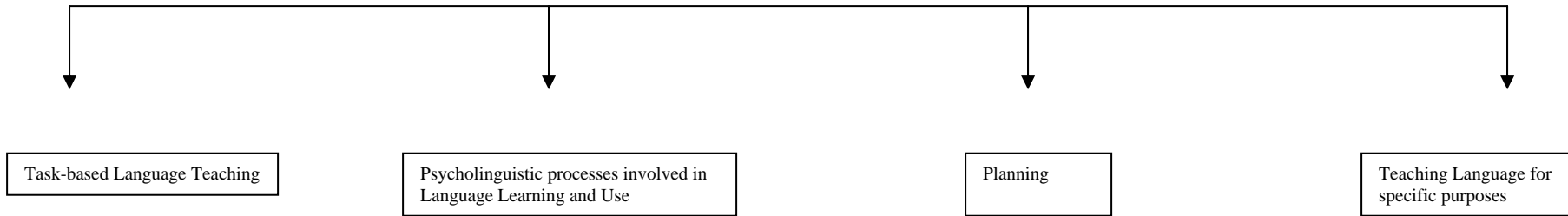
Learning a second language such as isiXhosa should not be considered an unachievable task. Being successful purely depends on the way in which the language learning process is approached and understood and the way in which the language is presented. Regarding the first mentioned, it is necessary that language learners come to terms with the fact that a language consists of much more than just words that are governed by rules. However, without a basic knowledge of these words and rules, one would never be a competent speaker of the target language. The days of practicing and producing what the teacher taught in class are over! The responsibility now lies with the learners themselves. Regarding the way in which a language is taught, teachers need to realize that a language cannot be taught by means of presentation and grammatical explanation. Teachers need to constantly create opportunities in which learners can communicate in the target language. Teachers also need to accept that in language, there is no one-way of completing a task, and that the emphasis has moved away from having a right and a wrong answer. And even though this takes away a lot of the control that the teacher used to have regarding not only discipline, but also the issue of grading,

teachers have to convert to task-based approaches to language teaching. The proof of its success is too obvious to ignore.

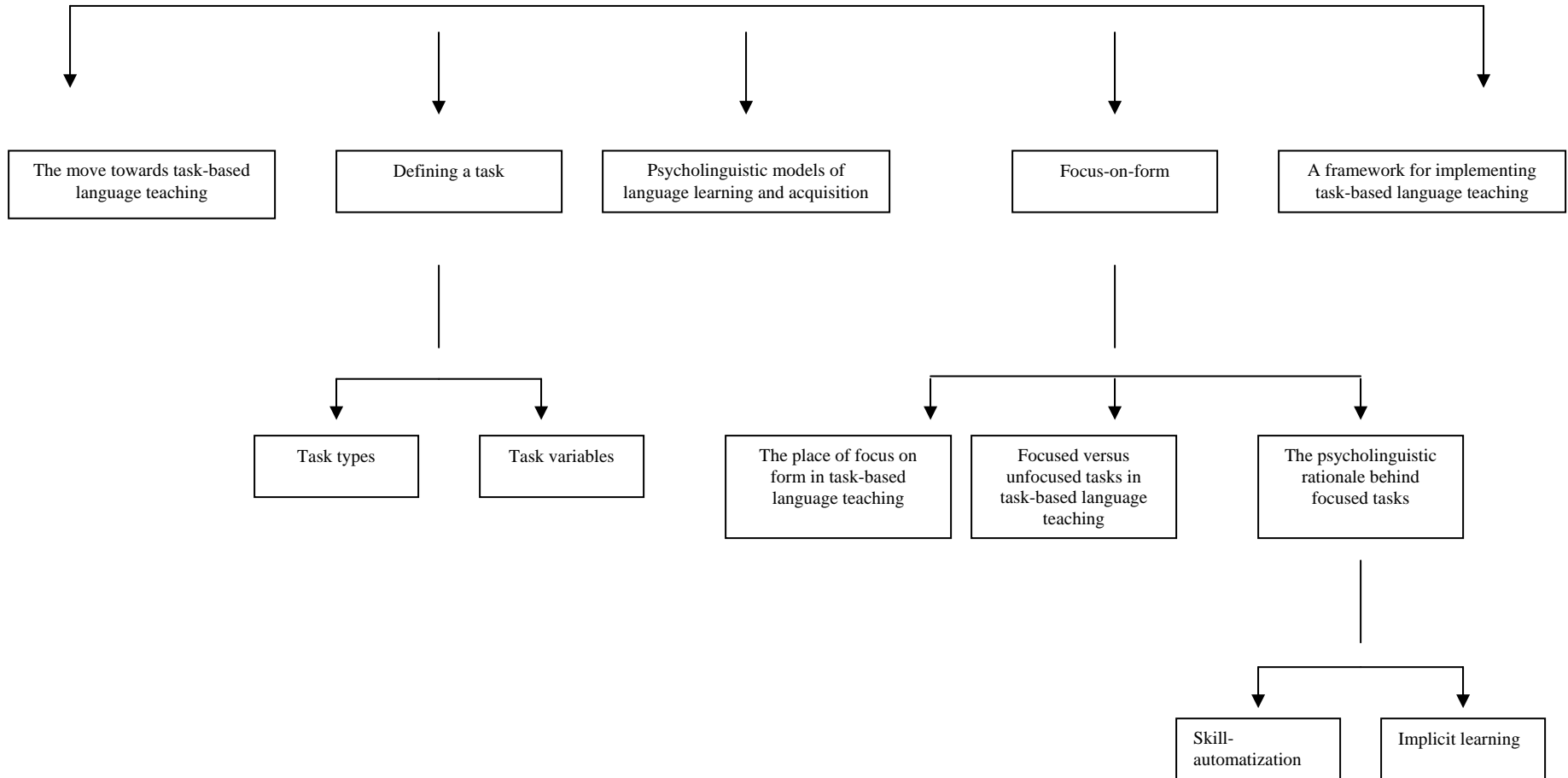
To end off this study, it should be stressed that knowing how to speak one language other than your mother tongue is a skill. Language provides us with a means of bridging the gap that exists between the different cultures of South Africa. It is a way to understand someone, and perhaps of more importance – to be understood.

SCHEMATIC OUTLINE OF THESIS

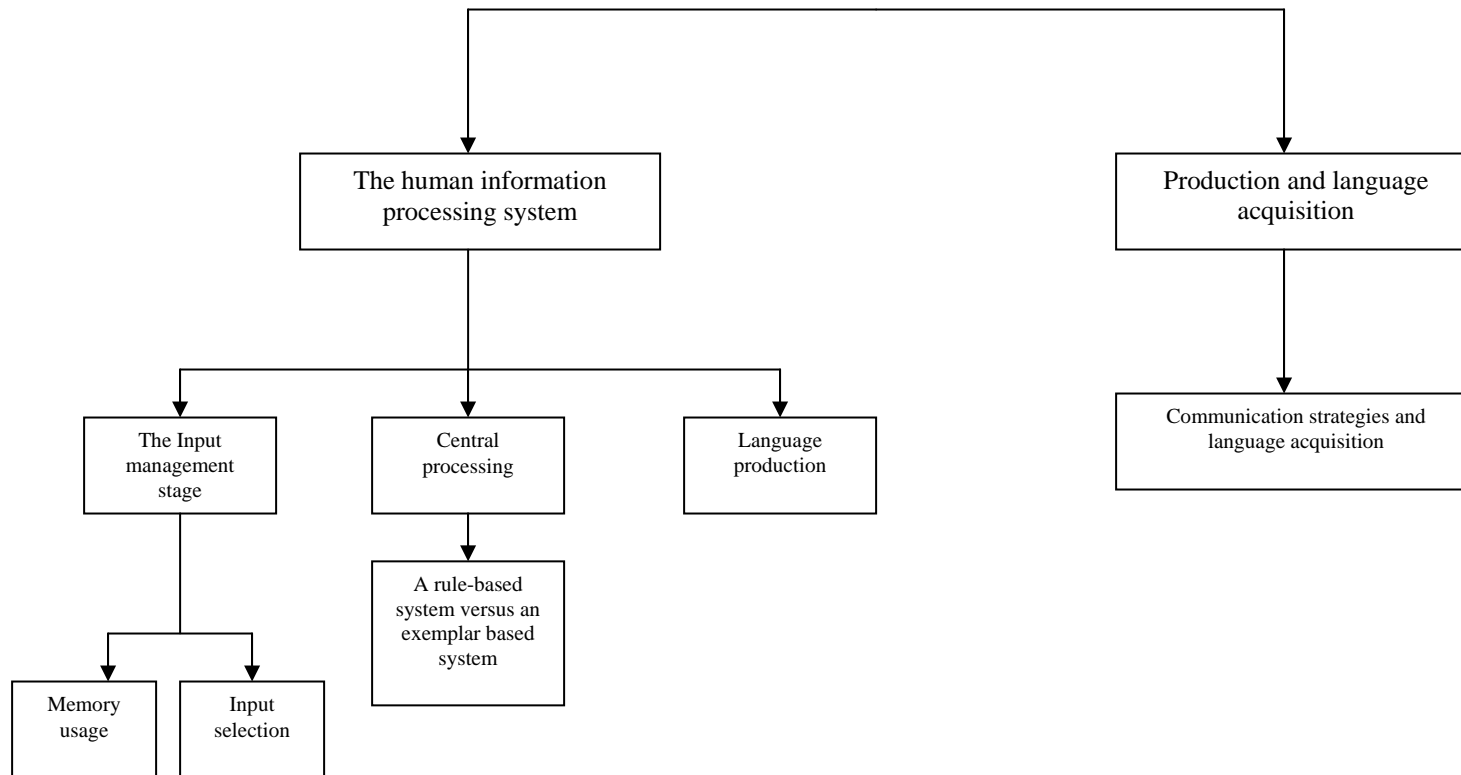
**THEORETICAL PERSPECTIVES ON SECOND LANGUAGE
LEARNING AND TEACHING**



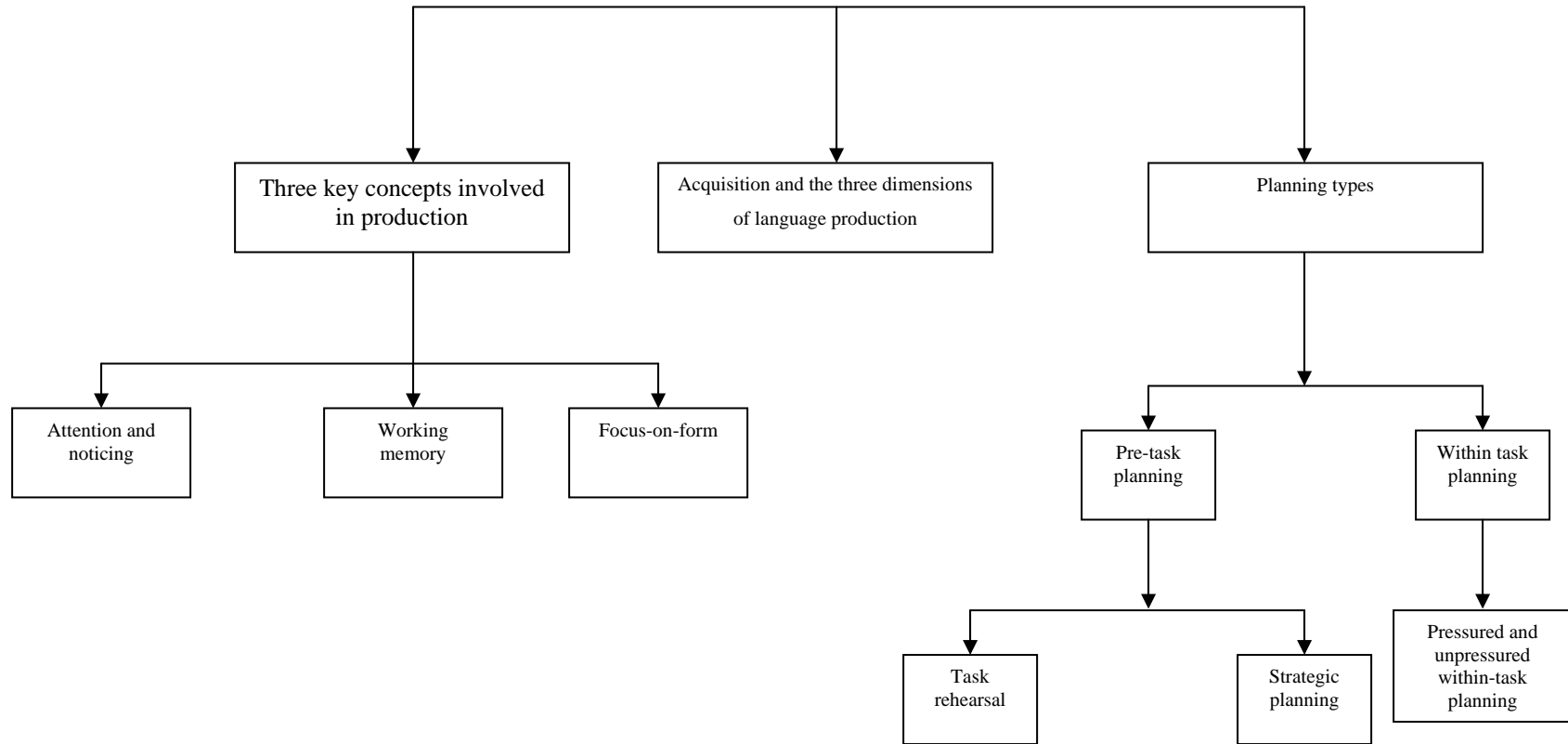
THEORIES AND PERSPECTIVES REGARDING A TASK-BASED APPROACH TO LANGUAGE TEACHING



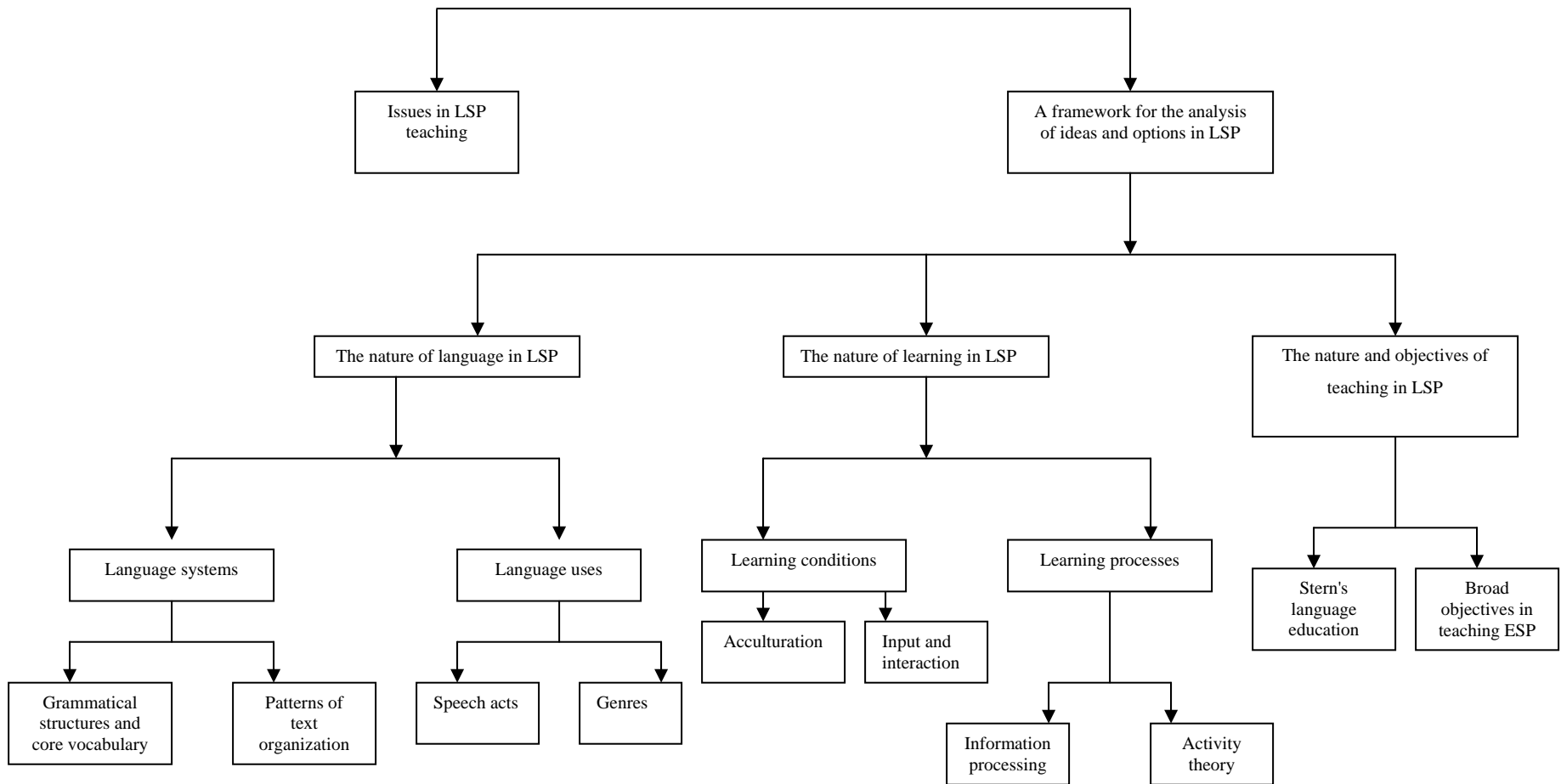
**THE PSYCHOLINGUISTIC PROCESSES INVOLVED IN LANGUAGE
LEARNING AND USE**



PLANNING



TEACHING LANGUAGE FOR SPECIFIC PURPOSES



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