EMBEDDED OBSERVATION OF ENGLISH FOR SPECIFIC PURPOSES STUDENTS IN SOUTH AFRICAN INSTRUCTIONAL SETTINGS

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ABSTRACT

Observation can afford the researcher an opportunity to observe events as they spontaneously occur. It could be used to observe students’ and lecturers’ behaviours in a variety of settings and to collect data on how they use language. This is also a means of assessing what students either have or have not learned. Thus, classroom observation is one of the mechanisms for achieving effective teaching and learning. This article describes real-time observation of ten English and Study Skills (ESS) English for Specific Purposes (ESP) lectures to under-prepared science students. Embedded observation was one of the mechanisms employed to evaluate the ESS course. The students were taught a science ESP course integrated in a Bachelor of Science Extended Degree Programme (BSc EDP) curriculum at the University of Limpopo (UL), Turfloop Campus, Sovenga, South Africa. The researcher used an observation scheme to reveal strengths and weaknesses in the lectures, and by extension, the ESS content.
Keywords: embedded, observation, English for Specific Purposes, South Africa, science, students

INTRODUCTION

Although informal classroom observation has always been part and parcel of teaching in the English and Study Skills (ESS) English for Specific Purposes (ESP) course, the researcher factored in formal classroom observation in an attempt to add value to the course content. This implied studying ESS teaching at close range, with a view to improving ESP teaching learning activities and fostering collaboration enquiry among Bachelor of Science Extended Degree Programme (BSc EDP) lecturers, as well as for their envisaged professional growth. The aim of this article is to give an overview of classroom observation, key features of classroom observation, an observation scheme, and the ESS course and to discuss the lectures observed.

OBSERVATION: AN OVERVIEW

Good observation offers insights that cannot be generated by any other method of data collection (Richards, Ross and Seedhouse 2012, 74). As one of a family of procedures used to collect data in qualitative research, observation is basic to assessing human skills and behaviours (Henning, Van Rensburg and Smit 2005, 100; Seliger and Shohamy 1989, 162). As language classrooms are specifically constituted to bring about learning, it is reasonable to collect data about what goes on there as a means of adding to existing knowledge of language learning and use (Nunan 1992, 91). In fact, all methods of collecting information for second language assessment can be thought of as specialised methods for eliciting behaviour, attitudes or skills to be observed under specific circumstances (Genesee and Upshur 1996, 77).

Observation involves working within a particular social or institutional environment, usually one with which the researcher is unfamiliar. This implies gaining access to the relevant setting and gaining permission to conduct research there (Richards et al. 2012, 72). The current research was conducted at the University of Limpopo (UL), Turffloop Campus, Sovenga, South Africa, and involved working in a BSc EDP ESS environment.

Observations are most often used to collect data on how learners use language in a variety of settings; to study language learning and teaching processes in the classroom; and to study teachers’ and students’ behaviours. Thus, the main use of observation is to study of the phenomenon at close range with many of the contextual variables present (Seliger and Shohamy 1989, 162).

Hopkins (2002, 69) points out that observation does not only play a crucial role in classroom research, but also, more generally, in the professional growth of educators. It is the pivotal activity that links together reflection for the individual
educator and collaborative enquiry for pairs or groups of educators. Therefore, observation encourages the development of a language for talking about teaching and provides a means for working on developmental priorities for the staff as a whole. For example, staff at other higher education institutions (HEIs) in South Africa observed BSc EDP teaching and learning activities prior to venturing in introducing similar programmes.

It is, however, vitally important to distinguish between two types of observations, namely: non-participant, which is the recording of events as observed by an outsider; and participant, wherein observers hide the real purpose of their presence by becoming participants themselves (Bless and Higson-Smith 1995, 105; Flick 2006, 216). Participant observation is more commonly used in qualitative research (Flick 2006, 219).

Furthermore, Lightbown and Spada (2013, 123) differentiate between natural and instructional settings. In natural setting classrooms, much of a learner’s learning takes place in interaction with peers as well as through instruction from the teacher. On the other hand, in structure-based instructional environments, the language is taught to a group of second or foreign language learners. This implies that the teaching focus is on language rather than on the messages carried by the language.

Genesee and Upshur (1996, 79) assert that informal observation is an integral part of everyday teaching because lecturers continuously observe their students’ language use, either during formal instruction or while students are working individually at their desks. Lecturers can observe how students respond to and use instructional materials and how they interact, and how they interact during group work. Lecturers can also observe how they themselves effectively present particular lessons, units, and so on. In the same vein, informal observation forms part and parcel of the teaching approach in ESS. Lecturers discuss what they observed while in class during their sectional weekly meetings.

However, researchers have devised sophisticated formal methods of observing educator-learner interaction in order to describe and understand second language teaching and learning better. For instance, real-time observation of second language classrooms by trained observers permits the compilation of detailed and complex information about language use by lecturers and students. This information may be difficult for the participants themselves to collect. Observation by trained observers is thus an important aspect of language research and is also used in some educator training programmes (Flick 2006, 216; Genesee and Upshur 1996, 77). Through observations and interactions, the lecturer will be able to judge the students’ level of experience and background in projects and plan a continuum of activities (Nagel 1996, 134).

Mackey (2012, 37) cautions that any involvement or presence of researchers in the classroom may influence students’ linguistic behaviour and thus skew the results due to the ‘halo’ or Hawthorne Effect. This refers to the tendency of those
observed to perform better in the absence of a researcher. Care must, therefore, be taken to ensure that the researcher’s involvement is kept as unobtrusive as possible in classroom observation.

Observations can vary in their degree of explicitness. Those of a high degree of explicitness are ‘structured’ observations; the researcher determines in advance what to look for in the observed context. Those of a low degree of explicitness are ‘unstructured’ or ‘open’ observations in which the data being recorded is broad and more general (Henning et al. 2005, 81; Seliger and Shohamy 1989, 163). The data collected is fashioned with certain assumptions and in a discursive perspective (Henning et al. 2005, 98). For example, data obtained from structured observations will be in the form of checks, tallies, frequencies and ratings, whereas data obtained from the open observations will be in the form of impressions, field notes, tapes or transcripts. However, for all types of observations it is recommended that observers be trained in observational techniques such as note-taking and recording information (Seliger and Shohamy 1989, 164).

Making field notes is a final element in observation. Since the process of writing itself prompts further recall, field notes should be seen as part of observation rather than a separate activity (Henning et al. 2012, 76).

**SOME KEY FEATURES OF CLASSROOM OBSERVATION**

According to Hopkins (2002, 70), there are at least five key features of classroom observation, namely: joint planning, focus, establishing criteria, observation skills and feedback.

A joint planning meeting between the observer and the observed is of crucial importance. It should precede the first in a series of observations since there is a need to establish, at the outset, a climate of trust between the observer and the observed; to agree on a focus that both regard as worthwhile; to discuss the context of a lesson; to sort out the ‘ground rules’; and so on. Once the observer and the observed become familiar with each other’s style and the roles are reversed, then the time spent in the initial meeting will be reduced (Hopkins 2002, 70).

Hopkins (2002, 70) points out that the focus of classroom observation activities can broadly be categorised as either general or specific. In the case of the former, everything counts and could therefore be commented on; in as far as the latter is concerned, observation is confined to a particular or well-defined classroom activity or teaching practice.

Ideally, criteria should be negotiated and agreed upon before the start of an observation. The contribution of classroom observation is enhanced if, during the initial discussion by the observer and the observed, criteria for the observation are established. It is also important that such criteria are subject to on-going review as
those involved refine their definitions of good practice. When viewed in this way, the discussion of criteria can then act as a ‘road map’ for development as well as provide standards by which the outcomes of an observation will be discussed (Hopkins 2002, 70).

There are three main observation skills involved, namely: guarding against the natural tendency to move too quickly into judgement; interpersonal skills involved when ‘invading another person’s space’; and knowing how to design schedules that will allow the observer to gather appropriate information on classroom behaviour or transaction or knowing which are the most appropriate checklists to use in a particular situation (Hopkins 2002, 71).

Amongst other things, feedback appears to work best if it is based on factual data, that is, data that is interpreted with reference to known and agreed criteria. Interpretation comes in the first instance from the educator who has been observed, and then given as part of a two-way discussion, leading to the development of strategies for building on what has been learnt (Hopkins 2002, 71).

AN OBSERVATION SCHEME

An observation scheme is one of the methods used in classroom observation and research (Nunan 1992, 91). Observers can use the scheme to check either the presence or absence of the behaviour. For example, used over time, checklists can document learners’ rate and degree of accomplishments within the curriculum, since they specify learners’ behaviour or products expected during progression through the curriculum (Carrasquillo and Rodriguez 1995, 34). Thus, observation is an attempt to observe events as they naturally occur (Flick 2006, 219).

Many different observation schemes have been developed for use in second language classrooms. They differ in a number of respects. For example: they can differ in relation to whether they are used by observers in ‘real time’ while they are in the classroom or used later outside the classroom. They can also differ in the number of categories they include and whether they are used throughout a lesson or on selected samples of classroom interaction. Observation schemes have also been used in the training of new teachers and in the professional development of experienced ones (Lightbown and Spada 2013, 129).

Nunan (1992, 96) points out that in selecting an observation scheme, it is necessary to match the scheme to the purpose of the research. The following questions can assist in evaluating and selecting a scheme:

- Does the scheme employ a category or sign system? (A category system allows the observer to document behaviour. For example, an educator asks questions every time the behaviour occurs. On the other hand, a sign system requires an observation to be made at regular intervals of time.)
- Should high or low inference behaviours be documented? (High inference behaviours require observers to interpret the behaviour they observe either on-task or off-task, whereas low inference behaviours may require observers to state what they observe.)
- Does the scheme allow a particular event to be assigned to more than one category or event?
- Is the instrument intended principally for research in real time or on video/audio recordings?
- Is the scheme intended principally for research or education?
- What is the focus of the instrument? (Schemes can enable the researcher to focus on one or more of the following: verbal, paralinguistic, non-linguistic, cognitive, affective, pedagogical content or discourse.)

Genesee and Upshur (1996, 79) point out that on the basis of their observations, lecturers assess what students either have or have not learned; infer the learning strategies students may be using that either facilitate or impede learning; the effectiveness of particular teaching strategies; determine which instructional activities and materials students enjoy; and so on. Information derived from such observations is fundamental to the day-to-day functioning of the classroom because it provides a basis for understanding what is happening and making decisions about what should follow. Based on a number of observations, for example, a lecturer may judge that a particular student has not learned what was taught that week, whereas the other students have; the observation that only one student has not learned will lead to very different decisions by the lecturer than the observation that most of the students have not learned.

Lecturers also seek to understand how their students are learning and to explain those instances when learning does not occur as planned. Their explanations of these situations can be used to plan instruction that will promote learning. For instance, in seeking to explain failure to learn, lecturers use the observation to make inferences about instructional or learning processes or strategies, and observation of student behaviour when a particular unit is taught might lead the lecturers to infer that the students were using strategies that might be effective in the first language but lead to mistakes in the second language (Genesee and Upshur 1996, 79).

Nunan (1992, 98) states that the use of observation schemes can provide a sharper focus for data collection than unstructured observation, and it can also serve to blind researchers to aspects of interaction and discourse which are not captured by the scheme; this may be important to lecturers’ understanding of the classroom or classrooms being investigated.

Inferences concerning learning and teaching processes are much more difficult to make than inferences concerning learning outcomes, yet both are equally important for effective teaching. Inferences about language learning outcomes can
be made on the basis of observations of concrete instances of the students’ actual use. For example, a language practitioner might want to investigate whether students use the passive correctly and appropriately when speaking and/or writing. On the other hand, inferences about processes related to teaching and learning are based on observation of a wider range of behaviours and events, and their relationships. For example, a lecturer’s understanding of students’ errors when writing and what to do about them might follow from observations directed at answering questions (Genesee and Upshur 1996, 80).

Since the introduction of observation schemes on the research scene, they have become increasingly sophisticated and have led to the relative simplicity of the earlier schemes (Nunan 1992, 97).

Henning et al. (2005, 82) state that the consequences of observation, the note-taking and the reflection upon or the interpretation depend on the meticulous crafting of the recording of the observed site.

RATIONAL FOR ENGLISH AND STUDY SKILLS

According to Vale (2004, 10), regular narrative has it that there were three waves of university creation in South Africa, namely: ‘Liberal/English’, ‘Afrikaner/Nationalist’ and ‘Black/Homeland’. These three categories of universities reinforced racial separation, which used to be a common fact about South African universities. The former University of the North (UNIN) falls into the ‘Black/Homeland’ category. It became the University of Limpopo (UL) in 2005.

Samuels (2013, 163) avers that academic achievement has not kept pace when compared to the advances made in access to schooling; internal and external assessments alike point to serious challenges. For example, learners who pass Grade 12 well enough to access higher education, find academic life extremely challenging.

Furthermore, South Africa participated in the Third International Mathematics and Science Study (TIMSS) in 2003; the Progress in International Reading Literacy Study (PIRLS) in 2006; the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) in 2002 and 2007; however, in the international assessments South Africa did not achieve the required international average scores and was placed at the bottom of the lists. Youths are trapped in a cycle of poverty by poor learning outcomes and these constrain national development (Samuels 2013, 165).

The need to communicate in English for global business and to gain access to information and learning has created a market for English-medium instruction around the world (Fulcher 2009, 130). Resultantly, English has a firm foothold even in many African states or economies, and is widely perceived as offering socio-economic opportunities and conferring prestige on the user (Fulcher 2009, 20).
According to Samuels (2013, 164), the South African education system still faces major challenges, with political instability at the forefront of education. To improve the quality of education, an improvement programme, which should in the main be informed by the pillars of access, equity and redress, quality and efficiency, is necessary.

Kirkpatrick (2013, 14) asserts that asking students to learn subjects such as science and mathematics through English when their English proficiency is insufficiently developed is sentencing them to failure. This also represents waste on a national scale.

From the above, it is evident that macropolitics often provides an important context for micropolitical behaviour, especially in the area of development aid and projects in language education. Thus, macro- and micro-politics are frequently intertwined (Alderson 2009, 14).

It is also useful to recognise that poor educational performance has multiple causes over and above the language of instruction, including: rapid rises in learner enrolments; large classes; poorly furnished classrooms; low textbook-learner ratios; the absence of an established literacy environment; and above all, educators with limited training (Ferguson 2013, 18).

The situation described above could be compounded by the fact that English is often taught by teachers whose own English proficiency is inadequate for the task and have no need or opportunity to use the language outside the classroom (Kirkpatrick 2013, 14).

On the other hand, the UL BSc EDP, which is commonly known as the University of the North Mathematics and Science Foundation Year (UNIFY), was introduced in an attempt to address this inadequacy. It is a mathematics and science access programme for previously disadvantaged black students who show the potential to succeed in the sciences but do not qualify to be admitted into the science faculty at UL. It includes ESS in its science curriculum; and biology, chemistry, ESS, mathematics, physics and computer literacy constitute the curriculum. The ESS is an intensive one-year ESP course. The overarching aim of the BSc EDP is to increase the quantity and quality of students from disadvantaged groups entering science-based faculties at UL (Ngoepe 2007). Much ESP work is based on the notion of a ‘common-core’ of language and skills that belong to all academic disciplines (Dudley-Evans and St John 1998, 3).

Even though the BSc EDP aims to increase the quantity and quality of students from disadvantaged groups entering science-based faculties at UL, Turfloop Campus, the students’ academic performance is inevitably influenced by their backgrounds and competence in the language of learning and teaching, which is English (Ngoepe 2012, 63).
The general outcome of the ESS course is that the students’ academic and general proficiency in English should improve and they should acquire language and study skills which will enhance their performance in mathematics and the sciences (Ngoepe 2007, 244).

The teaching reflects the underlying concepts, it is related to science content, and includes activities cover the broad discipline (Ngoepe 2007, 228; Parkinson et al. 2008, 13). Content is offered in thematic units subsuming a number of topics for lectures (Ngoepe 2007, 228). For example, the theme ‘The Scientific Method in Biology’ could be used to teach the passive verb and laboratory report writing; ‘The Noble Gases in Chemistry’ to teach quantity and comparison; ‘Probability and Proportion in Mathematics’ to teach standard units in mathematics; and ‘Work and Force in Physics’ to teach word classes and sentence construction.

In line with the above, Van der Westhuizen (2008, 564) advises that in education reform, the use of language should not be underestimated. Moreover, language is the conveyor and constructor of meaning in educational change and reform (Cossentino 2004, 555).

The BSc EDP is a learning-centred skills programme which sticks to teaching 170 students on average, in five groups of about 30 students in each of the five core subjects. The classes are small but are also labour-intensive as the lecturers in ESS would on average spend five contact sessions per week with each of the five groups (Jansen, Ntshingila-Khosa and Cranfield 2005, 20).

Evaluation was built into the UNIFY project from the outset to ensure that quality is attained and sustained; internal evaluation is done annually, whereas an external one is done whenever the situation warrants it. An external evaluation report by the Commission of the European Communities in 1994 stated that UNIFY was doing valuable work in both institutional as well as the national context (Cantrell 1995; Jansen, Ntshingila-Khosa and Cranfield 2005; Kahn and Volmink, 1994).

It was against this background that the observation of some ESS lectures was done in an evaluation context to ensure the quality of teaching and assessment.

METHODOLOGY

This observation study was embedded and ethnographic in design. Ethnographic research regards language learning as a profound social practice. It aims at describing and analysing the practices of language lecturers such as the ESS ones. Thus, ethnographic research can provide a narrative that describes richly and in great detail the daily practices of ESS lecturers (Dornyei 2007, 130).

Furthermore, in an embedded study, one data set plays a secondary role in that it provides valuable support for the main study. This embedded observation research instrument forms part of the triangulation used for the overall evaluation of the ESS course. The observation was employed to collect data, real-time, during ten
randomly selected ESS lectures (Richards, Ross and Seedhouse 2012, 308; Ngoepe 2007, 289).

The researcher used observation in real-time (Lightbown and Spada 2013, 129). This means that the researcher becomes the primary research instrument. That is, the researcher is implicated in the collection, construction and representation of the data; researchers should immerse themselves in the relevant social world so as to develop a rich, situated understanding (Richards, Ross and Seedhouse 2012, 33). The research involves first hand ‘participant observation’ in a natural setting (Dornyei 2007, 131).

For purposes of the current research, a category system was employed and this allowed the researcher to document low inference behaviour in class. The focus of the research was mainly on verbal as well as pedagogical content.

The researcher developed an observation scheme (see Appendix) in order to record activities in the classroom. The focus was on the teaching-learning activities and approaches that the lecturer employs. These were subsumed under goals, language problems addressed, content, teaching approach, teaching materials, accommodated learning styles, assessment and evaluation. Provision was also made for open-ended note taking.

The scheme was used to evaluate ten theme-based lectures to about 30 students per group during the course of the year. The duration of each lecture was 45 minutes with the exception of lectures 4 and 6 which were 90 minutes each.

The topics were as follows:

- Introduction to the ESS Course
- Abbreviations and Symbols Used in Marking
- The Impersonal Scientific Style of Writing
- Reading Comprehension Passage
- Common Terminology Used in Describing Graphs
- Feedback on Test
- Using a Graph to Write a Paragraph
- Key Words Used to Describe Structure, Function and Content
- Listening Comprehension Passage and Note-taking Practice
- Corrections of the Note-taking Practice

**OBSERVATIONS OF LECTURES**

The ten lectures were coupled with themes for contextualisation purposes and are described below.
Lecture 1: Introduction to the ESS course

Theme: ESP courses

The lecturer introduced a group of about 30 students to the ESS course. He pointed out that it was a compulsory one-year course for UNIFY students. The course focused on science concepts, language skills, grammar, spelling, reading and writing. Since the ESS course was skills-based, the students were expected to take an active part in the course activities. About 90 per cent of the exercises would be done by the students under the supervision of the lecturer, during lectures. The rest would be done as homework. In addition to the study guides and the student handbook prepared in-house, the students would each be loaned a copy of an English dictionary, a science dictionary, a thesaurus and a grammar reference book. Tutorial sessions would primarily be organised for the weaker students.

Lecture 2: Abbreviations and symbols used in ESS marking

Theme: Establishing rapport through marking

The lecturer stated that the goal of teaching the students to use the abbreviations and symbols used when lecturers marked students’ work would assist them in identifying the errors in their written work. He went on to explain that the abbreviations and symbols are used in ESS marking as an attempt to address students’ language problems such as misconceptions, vocabulary, grammar and spelling. Examples of the abbreviations and symbols are FI (follow instructions), NAS (not a sentence), MC (meaning changes), \( \rightarrow \) (leads to), \( \leftarrow \) (results from) and X (this is factually wrong). The students were then instructed to do an editing exercise which consisted of statements written by prospective students who sat for the UNIFY English selection test; these contained a number of language errors. The students had to identify the errors and then use the abbreviations and symbols to indicate the type of error or errors in a sentence. The lecturer led the corrections and discussion of the exercise, and constantly encouraged the students to take part in the discussion.

Lecture 3: The passive voice

Theme: The impersonal scientific style of writing

The lecturer pointed out that the action itself is more important than the person who performed it in academic scientific writing. Although scientists spend time in the laboratory performing experiments, they do not always attach a name to the person who performs an experiment except in an instance a breakthrough is made. The
lecturer gave an example of a sentence in the active and passive forms (‘I heated the test tube’ and ‘The test tube was heated by me’), which the students read from the blackboard. The students were then instructed to construct sentences, first in the active and then in the passive. The lecturer also introduced the concept ‘agent’ to the students. He explained the significance of not always mentioning the agent in academic scientific writing. The students were then instructed to study a table on passive forms of verbs in the grammar manual, and write down any problems they may have experienced as they progressed with the reading, in preparation for a discussion of the verbs in the table.

Lecture 4: Energy problems in Malawi: A reading comprehension passage

Theme: Reading comprehension strategies

The lecturer advised the students to spend ten minutes reading the comprehension passage on ‘Energy problems in Malawi’ and then 20 minutes providing answers to the comprehension questions. Most students experienced difficulty in answering the questions. For example, they did not know the meanings of ‘silt’, ‘parastatal’, ‘whopping’, ‘exotic’, ‘astronomical’, ‘import duty’ and the difference between ‘wood’ and ‘charcoal’. They could not work out the number of years it would take Malawi to lose all its forests. Most students struggled to complete the language practice questions. They also had problems with concord. The lecturer gave them an opportunity to complete the exercise after a discussion of identified problems. As individual students took turns to read out their answers, the rest of the students participated by asking for clarification, rephrasing answers provided where necessary and commenting on the answers.

Lecture 5: Common terminology used in describing graphs

Theme: Visual literacy

The students were first instructed to study a table, and then spent ten minutes completing the table by filling in words missing from the table. Words such as ‘decline’, ‘deterioration’, ‘peak’, ‘rise’, ‘raise’ and ‘recovery’ were frequently used in describing graphs. They also had to identify the part of speech to which the words belonged. The students led the discussion of the corrections of the exercises. They had difficulty dealing with the nouns ‘raise’, ‘recovery’, ‘fall’, ‘deterioration’ and ‘plunge’, the past tenses of the verbs ‘raise’ and ‘grow’ and the verbs ‘to level off’ and ‘to peak’. The students were instructed to complete a similar table on ‘Adjectives and Adverbs’ as homework.
Lecture 6: Feedback on written test

Theme: Assessment

The class was devoted to feedback on a language test. The test was made up of three questions which emanated from recently taught language aspects. The focus in the test was on the impersonal scientific style of writing, using a dictionary to find meanings of words and the use of articles. The lecturer projected possible answers of the board. The students did not always know when to include an agent in the passive form, or whether verbs such as ‘turn’, ‘change’, ‘shape’, ‘add’ and ‘use’ were transitive or intransitive in the particular context. They also had problems with the meanings of particular words. Twenty-one per cent of the students failed the test.

Lecture 7: Using information in a graph to write a paragraph

Theme: Information presentation and interpretation

The lecturer instructed the students to study a graph on the birth rate in Britain between 1841 and 1981, and write a paragraph describing the data. They were also expected to suggest reasons for the trends. After completion of the exercise, four students were instructed to copy their paragraphs on the blackboard to trigger a discussion of the paragraphs. The lecturer then led a discussion of the paragraphs by the class. On the whole, the students’ mistakes centred around incorrect tense usage, the use of general and specific statements in a paragraph, and differentiating among word classes such as nouns (‘reduction’, ‘decline’), adjectives (‘steady’, ‘gradual’), verbs (‘decline’, ‘limit’) and adverbs (‘steadily’, ‘gradually’).

Lecture 8: Describing ‘structure, function and content’

Theme: Structure, function and content in scientific texts

The goal of the lecture was to teach the students some key words for describing structure, function and content in science because scientific texts are very often concerned with describing how something is put together, how it operates and what it is made of. This is especially true of biology texts. The lecturer asked the students to construct sentences using the key words and phrases ‘consist(s) of’, ‘is composed of’, ‘contain(s)’, ‘constitute(s)’, ‘comprise(s)’, ‘include(s)’, ‘is made of’, ‘is made up of’, ‘constituent(s)’, ‘component(s)’, ‘composition’ and ‘content(s)’. Nearly all the students could use ‘contain’ and ‘content’ correctly. Most of the students did not know how to use the rest of the key words and phrases. The students compared their usage with examples in their manual. The errors triggered a discussion of the corrections.
Lecture 9: Note-taking from a lecture

Theme: Note-taking simulation

About 180 UNIFY students attended this lecture in one big hall. The lecturer read out a listening comprehension passage ‘The Preservation of Food’ once from the ESS Listening Comprehension Passages Booklet while the students took notes. Some students found the pace of the lecturer fast whereas others found the lecturer reasonably paced. Several students arrived late for the lecture and, as a result, missed out on the introduction and some of the core information. That rendered late comers unproductive. At the end of the reading session, the lecturer instructed the students to bring the notes they took to the following lecture for correction.

Lecture 10: Correction and expansion of notes taken from a lecture

Theme: Note-taking/Expansion of notes

The students brought the notes they took during the last note-taking practice lecture to class. They were then given an exercise that required them to use their notes to fill in the missing words in a passage derived from the original one. Meanings of unfamiliar words were given. Some students had looked up unfamiliar words in their dictionaries when preparing for this lecture. The lecturer then led a discussion of the note-taking practice. He wrote the correct spellings of a number of words on the board. He also clarified that the meanings and forms of a number of words, such as ‘moisture’ and ‘warmth’, and ‘bacteria’ and ‘bacterium’. Subject-verb agreement in the context of ‘The preservation of food’ was also discussed.

FINDINGS AND RECOMMENDATIONS

Although observation of lectures revealed that the lecturer dominated the lectures, there was some scaffolded teaching and learning during the lecturers. For example, as a rapport building exercise, the students are taken through abbreviations and symbols used in marking ESS quite early in an academic year; reading comprehension passages are science based; and a double period is dedicated to feedback giving as a means of triggering and sustaining interaction.

Formal instruction in grammar played an important role in these lectures. The question that arises is whether formal instruction benefits second language acquisition. The research evidence generally indicates that this is the case. For example, Ellis (1994, 659) states that formal instruction results in increased accuracy and accelerates progress through developmental sequences. Its effects are, at least in some cases, durable. But he points out that formal instruction is best seen as
facilitating natural development rather than offering an alternative mode of learning. Grammar teaching should involve not only key grammatical forms, such as verb forms and tense, voice and nominalisation, but it should incorporate functions as well.

The lectures focused on reading to a large extent. The students were often merely instructed to read a passage and then answer questions on it. Instruction in reading strategies did not seem to be given, although this could assist the students in improving their reading comprehension skills.

The teaching of vocabulary occupied a central position in these lectures, but vocabulary instruction did not appear to be very successful. The students were not engaged in actively finding meanings of unfamiliar words contained in a text. Vocabulary teaching should be incorporated into reading classes and grammar teaching, and the relationship between meaning and form should be taught in context. Thus, the reading comprehension passages contained in the study notes together with the reference materials should be used as a basis for vocabulary teaching.

Writing practice was mainly at sentence and paragraph levels; students need more practice on sustained writing pieces. Ideally, topic, supporting and concluding sentences should be taught in the context of paragraph writing.

Listening was practised in a group of about 180 students by the lecturer reading out a very long passage while the students took down notes. The class was too large for this type of exercise; there was no sound system; and the lecture could not be regarded as successful.

Although not all the ESS lectures were observed, no tutorial sessions took place; neither was group or pair work done in the lectures observed.

An observation that was not embedded in an evaluation study could have made it possible to observe all the ESS lectures; the exercise could have enriched the observation study.

In addition, an observation of the ESS sectional meetings as well as BSc EDP staff meetings could have given the study more depth.

**CONCLUSION**

Classroom observation can be employed to improve the teaching and learning of ESP courses, and foster collaborative enquiry and professional growth among science ESP lecturers at UL and across universities which cater for under-prepared science students in South Africa.

The findings of the ESS observation lectures can facilitate the review of similar language curricula taught in access programmes at other HEIs in South Africa.

In the long term, the attrition rate of previously disadvantaged science students at risk of not making it at tertiary level will be increased and, as a result, the throughput rates of science graduates at UL and by extension, in South Africa, will be improved.
REFERENCE


APPENDIX

Observation scheme

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Instructions: Use the key provided on the next page to choose and encircle the number that best describes what you observe in class:

1. **Goal(s)**

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2. **Language problems addressed**

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3. **Content**

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4. **Teaching approach**

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### Use of audio visual aids

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### Lecturer facilitation

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### Learner participation

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### 5. Teaching materials

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### 7. Assessment

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### 8. Evaluation

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**Key:**

- 0 – none
- 1 – marginal
- 2 – considerable
- 3 – good
- 4 – excellent