

Communicative Competence of Science Students: An Illustration with UNAAB¹

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Abstract

Over the years, many reasons have been adduced for students' lack of communicative competence at tertiary institutions even after they have taken proficiency courses to develop their communicative ability. Lecturers are sometimes, accused of not designing a syllabus which meets students' actual needs and also for not applying appropriate teaching pedagogy, thereby creating, in some cases, a gap between communicative competence and actual performance. This paper explicates some of the manifestations of these, using data from two sets of students' results from 100 level to 200 level. The paper raises the question as to whether the results reflect the expected achievement of the objective of the courses and the implications for communicative competence.

Introduction

Communication problem among Nigerian youths, particularly among students in tertiary institutions, is not a new development. A number of reasons can be given for this. And despite the existence of the communication skills courses in many of these tertiary institutions, many students are still grossly deficient in English language. This lack of proficiency in language use certainly contributes to the low level of comprehension and performance of students in their studies.

As can be observed over the years, from students' scores in General Studies (GNS) English courses quite a large proportion of students have considerable marginal passes i.e. between 40-49 (40 marks is the minimum pass mark at UNAAB). Due to the fact that a large number of them score between 40-49 and are allowed to move

¹ UNAAB is the acronym for University of Agriculture, Abeokuta, Nigeria.

on to the next level it gives the impression that the students do not have any communication problems as such. However, judging from practical observations of the students, in and outside the class, comments from colleagues from core-course areas, and the fact that a large number of these students score grades between 40-49 shows there is a problem.

Recognizing this language situation, it seems to us probable that students engage in examinations/test-oriented learning (for them to just manage to score the minimum grade) which consequently affects their systematic mastery of the fundamental knowledge and integrate skills of English, and thereby, hindering their development of communicative competence.

Background Information

UNAAB, is a practical and application-oriented university offering degree courses in Agriculture, Natural Sciences, Engineering, Veterinary Medicine and Environmental Sciences. It is a third-generation institution in Nigeria, as it was established in 1988. At UNAAB, a typical degree course has the duration of eight semesters, and generally, the fifth and sixth semesters are devoted to industrial attachment and farm practicals. Currently, UNAAB has about 10,000 undergraduate students.

At UNAAB, all the students are required to pass all the General Studies courses as a condition for graduation. The GNS English sub-programme of the university currently comprises two courses, namely, Use-of-English (GNS 101) to all first-year students and Introduction to Literature b (GNS 201) to all second-year students. The two courses are designed to tackle the inadequacies of the students in communicative skills and, in particular, to improve significantly their proficiency in English, both spoken and written.

An overview of the contents and methods of the programme for GNS 101 is presented in Table 1. This, however, is actually a simple picture of a dynamic situation, just as in any other curriculum, all subject matter and teaching approaches are subject to regular revision and updating. For example, the materials that are presently in use for GNS 101 have undergone a series of changes and trials before being put together in a book form. And new materials are currently being tested.

As for GNS 201, which is definitely a general developmental course, students are expected to expand their experience. The course is designed to enable students have a generalised but clear awareness of the historical development of literatures in the English language in Nigeria in the first place but also, more broadly, in Africa, the Caribbean, the United States of America and the British Isles (See Table 2).

Over the years, the GNS English sub-programme at UNAAB has been subjected continuously to review with a view to updating and ensuring that its organisation, curriculum and pedagogy are such as can keep the sub-programme at a high level of appropriateness, relevance and effectiveness. While the curriculum has remained relatively stable, texts used for the courses, methods of teaching, organisation of classes - have undergone considerable adjustments and innovations aimed at enhancing the effectiveness, efficacy and impact of each of the two courses and of the sub-programme, in general.

Competence and Performance

For a long time, scientists and philosophers have worked with the basic distinction between competence and performance. **Competence** is one's underlying knowledge of a system, event, or fact. It is the non-observable, idealized ability to do something, to perform something. **Performance** is about the overtly observable and concrete manifestation or realization of competence. Essentially, competence is one's underlying knowledge of the system of a language - its rules of grammar, its vocabulary, all the pieces of a language and how those pieces fit together and performance is the actual production (speaking, writing) or the comprehension (listening, reading) of linguistic events (Brown 1987:2). This is comparable to Ferdinand de Saussure's (1916) distinction between *langue* and *parole* as two separate phenomena, independent of each other. *Langue* exists in the form of a sum of impressions deposited in the brain of each member of the community *Parole* [is] ... an individual, ... wilful phonational acts" (Saussure 1916 cited in Brown 1987:2).

Communicative Competence

Communication competence is a metalinguistic term which presents immense theoretical problems of understanding and application. The technical term, communicative competence, was coined by Campbell and Wales (1970) to disagree

Communicative Competence of Science Students: An Illustration with UNAAB
Helen Bodunde and Bolanle Akeredolu-Ale

with Chomsky's (1965) notion of linguistic competence (Adejare 1995: 158). According to Chomsky(1965: 3), linguistic competence is:

“concerned primarily with an ideal speaker-hearer, in a completely homogenous speech community, who knows its language perfectly and is unaffected by such grammatically irrelevant conditions as memory limitations, distractions, shifts of attention and interest, and errors (random or characteristic) in applying his knowledge of the language in actual performance.”

This idea is however full of limitations and weaknesses. In 1966, Foder and Garrett modified linguistic competence and defined competence as the general ability or capability to do something, as opposed to actual performance, which may be subject to fluctuations. They therefore described grammatical competence as the knowledge an individual has about the structures of his language. However, grammatical competence retained certain essential features of linguistic competence in the two areas of mentalism and the total exclusion of usage from consideration (Adejare 1995:159)

However, Campbell and Wales (1970) proposed a further modification of grammatical competence into what they called communicative competence. It embraced the factuality of grammatical competence and goes two levels further. Instead of the separation of competence from performance and the focus on competence as the object of linguistics, it recognizes the reciprocal interdependency of both by declaring the duality of rationalism and empiricism as the philosophical factors naturally at work in language acquisition. Therefore, according to them, “communication competence is the capability or ability to produce and understand utterances which are not so much grammatical but appropriate in the context in which they are used (Campbell and Wales 1970:241 cited in Adejare 1995:159).

Dell Hymes (1967, 1972), a sociolinguist was also convinced that Chomsky's (1965) notion of competence (referred to earlier) was too limited. He observed that Chomsky's “rule-governed creativity” that so aptly describes a child's mushrooming grammar at the age of 3 or 4 did not account sufficiently for the social and functional rules of language (Brown 1987: 198).

In the 1970s, studies on communicative competence noted carefully the difference between linguistic and communicative competence to emphasize the difference
Communicative Competence of Science Students: An Illustration with UNAAB
Helen Bodunde and Bolanle Akeredolu-Ale

between knowledge “about” language rules and forms and knowledge that enables a person to communicate functionally and interactively (Brown 1987: 199). In a similar vein, Cummins (1979, 1980) proposed a distinction between **Cognitive/Academic Language Proficiency (CALP)** and **Basic Interpersonal Communicative Skills (BICS)**. CALP refers to the form of language skills needed for academic learning. This includes listening, speaking, reading and writing about subject area content material. BICS are language skills needed in social situations, that is, the day-to-day language needed to interact socially with other people.

In subsequent developments, Canale and Swain (1980) and Canale (1983) established four different components or sub-categories of communicative competence:

- a) Grammatical competence
- b) Discourse competence
- c) Sociolinguistic competence
- d) Strategic competence

Bachman (1987) then reorganized this understanding of communicative competence into three main broad categories:

- a) Language competence
 - Subsumes organizational competence, grammatical competence, and textual competence;
- b) Strategic competence
- c) Psychomotor skills.

From the above, it can be gathered that the principle, which is now a “household principle” in second language research and teaching, communicative competence is extensive and has been subjected to various criticisms and changes. There is no doubt that these various insights of communicative competence have generated and fed off significant research into the study of both academic success and the role of general language/linguistic ability.

The rest of this paper is, therefore, concerned with the performance of students in examination indicating that there is a weak communicative competence among science students. The examination results show that a large percentage of the students managed to scale through the hurdle with marginal passes, and overall, this is an indication of a poor communicative competence despite their more than fourteen years of exposure to English language.

Purpose of the Study

The concern of this study was to show that there is a variation in the communicative competence and performance of science students at UNAAB. The objective of the study therefore is, first, to find out if there were significant changes in the students' performance at the 100 level and the 200 level, and second to show that their performance (marginal scores in the GNS English courses) is an indication of their poor and weak competence in English Language and communication skills.

Methodology

The material for the study was the GNS 101 and GNS 201 results of two cohorts of students (Cohorts 1A-1B and Cohorts 2A-2B) in all the 25 departments of the seven colleges in the university. For the analysis of our results, we have used simple frequency counts and percentage distributions.

Findings and Discussion

Our findings are presented below using descriptive statistics. Table 3 provides information on the performances of students in cohort 1A. It is revealed from the table that the performance of students in GNS 101 tilts towards average thereby the modal class is from 50-59 with about 35% of the students in the grade.

The overall performance of the students in GNS 101 is better than that of GNS 201 because more students scored above 50 in GNS 101 than GNS 201. An average of 6.4% and 27.7% failed GNS 101 and GNS 201 respectively. A consistently lower performance in high grades is observed. Only about 29.5% and 3.9% of the students in 100 and 200 levels respectively scored 60 and above which is an evidence of low performance.

In discussing the findings in Table 3 further, a breakdown of the students' result according to Departments is presented in Table 4. About 16 departments out of 25 have students who scored 70+ at the 100 level while just six departments (VET, FST, MCB, MATHS, PPCP and ABG) have students who scored 70+ at the 200 level. AE&FM has the highest percentage of students who scored 70+. A modal class of 60-69 is recorded in three departments (EMT, SSc and HORT). For GNS 101, Chemistry has its score shared between 50-59 and 60-69. Three departments (EMT, ANN and VET) do not record any failure in GNS 101.

Conversely, students' performance in GNS 201 consistently falls below expectation. There is no department that scored up to 70%, either above 70% or 60%. VET had about 38.4% of the total students that scored between 59 and 60. The department is consistent in its performance because at the 100 level the modal class is 50-59. Majority of the departments fall at the last pass grades of 40-49.

Table 5 shows the result of another cohort (cohort 1B). It is slightly different from that of cohort A. The modal class for both GNS 101 and GNS 201 falls within grades 40 – 49. The students are interested in mere passing GNS courses so they feel happy that they passed the courses marginally. At least they would not be held back. This also accounts for their marginal communicative competence when it comes to the use of English language in their core subjects and other domains. A critical look at the numbers that failed the courses in each level points to the fact that much still needs to be done. It also shows that the numbers of those who can actually perform in the language are quite greater than those who cannot since low percentages of 10.4% and 17.3% in GNS 101 and GNS 201 were recorded respectively.

A breakdown of Table 5 is presented in Table 6 showing the performance according to departments. In 100 level, the modal class in most of the departments is 40-49 grades. However, COLENG has its modal class as 60-69 and with other four departments (VET, FWM, EMT and AQFM) having 50-69 as their modal class. CPT shares the modal class between 50-69 and 40-49. BIOCHEM has the highest level of failure of 19.4%. GNS 201 presents a worse scenario. Even though a bulk of the students falls within the 40-49 grades there are also instances of having a failure rate of 49% as in the case of APH. AE&FM, AGROMET and PBST have the best result of a modal class of 50-59 grades. Physics is the only department that did not record any failure.

The discrepancy between the performance in GNS 101 and 201 calls for an examination of what could account for the significant drop in performance in the two cohorts. This is clearly shown in Tables 7 and 8.

A correlation of students' performance in the 2-cohorts according to the courses shows that the students in cohort A score higher in GNS 101 than students in cohort 1B (Table 7). This is shown by the fact that the modal classes are 50-59 and 40-49

grades among cohorts 1A and 1B respectively. More students among cohort 1B failed than students in cohort 1A.

Comparing GNS 201 of the two cohorts, the second cohort (2B) performed better. This shows that a deliberate and conscious attempt to improve was made after their marginal performance in 100 level. However, over-confidence might have caused the downward performance of students in cohort 2A. As a matter of fact, it is expected that after about 13 years (6 years in primary, 6 years in secondary and 1 year in 100 level) of learning English language, the target language, the students should be able to communicate effectively and manifest a high level of proficiency in it.

One of the things that could contribute is the assessment procedure. In 100 level because of the nature of the preliminary programme and the number of students to cope with by the lecturers-in-charge of the course, and the number of courses that students would contend with, 'fill-in' or 'multiple-choice' questions are the common means of assessment. This kind of assessment does not adequately give room to assess students' competence appropriately. No matter the level of supervision during examination, it is still very easy for students to exchange ideas. It is equally easy to guess the answers correctly. On the other hand, GNS 201 examination mode of assessment is essay type. It is not easy to guess the answers. Exchanging and sharing of ideas are difficult. GNS 201 requires students to put into play their proficiency in grammar to express the content of the required answers in the essay question. It is very glaring that the students' competence in the skills of the target language is inadequate.

Coupled with the above is students' attitude to reading in non-core subjects. They see learning as a way of regurgitating verbatim what is taught in class, whereas GNS 201 is an application of what is taught considering the objective of the course to assist students cope with daily and life tasks. There is no task in life that will ask you to "list" or "mention", thus questions set in this course is an application of the students' experience bearing in mind what they have read and been taught in solving a problem or approaching a life situation. It is not surprising that students who are unable to cope well in this course often finds it difficult to cope with the challenges in their core courses, particularly at 400 level.

There is also the negative attitude towards languages by science students. It is often forgotten that language, particularly English is important in the dissemination of knowledge. The students are sometimes encouraged by the core subjects' lecturers (who then turn round to complain about the language ability of the students) that they have learnt enough English language in the secondary school. The negative reinforcement influences the students' attitude and performance. The effectiveness of positive reinforcement in the teaching and learning process has been established in various studies as a major factor in learning (Akeredolu-Ale, 2007, Alimi & Akeredolu-Ale 2003).

Class size as pointed out in other studies (Bodunde, 2005; Bodunde, 2006) is a bane and a clog in the wheel of learning effectively in GNS 101 and GNS 201. The students are 'faceless' in a large class. They are in the class but in the world of their own and this does not enhance learning.

The Way Forward: UNAAB Innovation

- A new approach has been introduced whereby class size is reduced to a manageable number that can encourage more participation thereby enhancing learning. A teacher to about 200 students is what we are working with presently.
- The course content for GNS 201 has been revised from not only Introduction to Literature but to Writing and Literary Skills. The new content enables the teaching of reading and writing skills since both are very related. From the feelers we have at present, the experiment is succeeding.
- The GNS 101 assessment mode is also slated for review from 'fill-in-the gap' or 'multiple choice' to short writings that will make students write so that they can be helped. It will also eliminate a false assessment that is witnessed now.
- Arrangement is in the pipeline to shift Academic writing to 300 level shortly before students get into the last lap of their studies that involves project and thesis writing.

Suggestions and Recommendations

- There is the need for conscious intervention on how to improve the teaching and learning of English language from primary and secondary schools. Teachers at this level need to be trained properly because majority of the teachers are not competent to teach the subject.

- There is the need to wade into the choice of teachers teaching the subjects in Nigerian primary and secondary schools.
- In tertiary institutions, the assessment of GNS courses, particularly English should not be multiple choice or fill-in-the gap.
- Contact hours with students should increase from 2 hours a week to at least 4 hours a week.
- The teaching of English language in large classes should also be discouraged. The implication of this is that more teachers of English should be employed or more lecture rooms should be provided.

Conclusion

The findings in this study have shown that there is a significant difference in the communicative competence and performance of science students. This difference is reflected in the fact that the students whose results were used for this study did not do significantly well at both the 100 and 200 levels. There is obviously a need for intervention and the call for this was made above.

Our emphasis in this study has been on the communicative competence and performance of students of UNAAB, using the results for two cohorts. We, however, recognize our major limitations in this study, sample size and the fact that Nigeria is a vast country with a considerable large number of tertiary institutions. We believe that the results would be an impetus for a further research.

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Table 1: THE GNS 101 PROGRAMME AT A GLANCE

| | Topic | Language Contents | Skill Emphasis | Materials | Method |
|---|-------------------------------------|--|---|---|--|
| 1 | Awareness Raising | <ul style="list-style-type: none"> looks at the different kinds of difficulties students have and some of the mistakes they make when writing in English | <ul style="list-style-type: none"> Prepares students for the tasks ahead Distinguish informal writing from formal writing | <ul style="list-style-type: none"> <i>Communication Skills in English for Tertiary Institutions</i>, chapter one Miscellaneous tape recorded materials on audio cassettes | <ul style="list-style-type: none"> Lectures from recommended text with exercises audio cassettes used in class |
| 2 | Listening Skill | <ul style="list-style-type: none"> characteristics of a good listener weaknesses of a poor listener note taking and note making use of symbols | <ul style="list-style-type: none"> listening (becoming good listeners in both social and academic contexts) note-taking | <ul style="list-style-type: none"> <i>Communication Skills in English for Tertiary Institutions</i>, chapter two Tape recorded materials on audio cassettes Other specially prepared materials (transparencies and slides) | - ditto- |
| 3 | Speech Work | <ul style="list-style-type: none"> useful introductory guide on spoken English phonemic practice | Speaking | <ul style="list-style-type: none"> <i>Communication Skills in English for Tertiary Institutions</i>, chapter three | <ul style="list-style-type: none"> Lectures from recommended text Conversation practice Language drills |
| 4 | Grammatical Structures | <ul style="list-style-type: none"> review of parts of speech and their use and function in general communication tenses in English agreement in English phrases, clauses and functional sentence types | Writing (short texts) | <ul style="list-style-type: none"> <i>Communication Skills in English for Tertiary Institutions</i>, chapter four Other specially prepared materials | Lectures from recommended text |
| 5 | Punctuation Marks | <ul style="list-style-type: none"> standard forms of the use of punctuation marks | Writing Edit papers for correct usage and mechanical accuracy | <ul style="list-style-type: none"> <i>Communication Skills in English for Tertiary Institutions</i>, chapter five Other specially prepared materials | -ditto- |
| 6 | Common Errors in the Use of English | <ul style="list-style-type: none"> common errors based on examples from students' examination and daily use | Writing Speaking Reading comprehension | <ul style="list-style-type: none"> <i>Communication Skills in English for Tertiary Institutions</i>, chapter six Other specially prepared materials | <ul style="list-style-type: none"> Lectures from recommended text Practical text analysis and exercises |
| 7 | Reading Skill | <ul style="list-style-type: none"> the purposes of reading reading techniques | Writing Reading comprehension Listening comprehension | <ul style="list-style-type: none"> <i>Communication Skills in English for Tertiary Institutions</i>, chapter six Other specially prepared materials | -ditto- |
| 8 | Writing Skill | inter- and intra- paragraphic cohesion vocabulary work structure of an essay | Writing (short texts, full texts such as letters) Reading comprehension | <ul style="list-style-type: none"> <i>Communication Skills in English for Tertiary Institutions</i>, chapter eight Other specially prepared materials | <ul style="list-style-type: none"> Lectures from recommended text Practical text analysis and exercises with class-work, assignments and pair work |
| 9 | Quotations in Academic Writing | <ul style="list-style-type: none"> using reference materials acknowledging sources | Referencing | <ul style="list-style-type: none"> <i>Communication Skills in English for Tertiary Institutions</i>, chapter nine Other specially prepared materials | -ditto- |

Table 2: THE GNS 201 PROGRAMME AT A GLANCE

| | Topic | Skill Emphasis | Materials | Method |
|---|--|--|--|--|
| 1 | Introduction to Literature | <ul style="list-style-type: none"> Prepares students for the tasks ahead | <i>Communicative English Practice</i> (part two: chapters one and two) | Lecturer introduces Literature to the students |
| 2 | The 3 Genres of Literature with their features | <ul style="list-style-type: none"> Identifying the features of the 3 genres of literature | - ditto - | Explanation of the genres with examples |
| 3 | Treatment of Shakespearean drama | <ul style="list-style-type: none"> Exposes students to what happened in the past in non-African setting | <ul style="list-style-type: none"> <i>Julius Caesar</i> | Participatory approach in discussing the elements of literature. |
| 4 | Treatment of African prose/drama | <ul style="list-style-type: none"> Appropriating the elements of drama/prose to the text | <ul style="list-style-type: none"> <i>Trials of Brother Jero</i> <i>Dung Hill</i> | - ditto - |
| 5 | Treatment of contemporary prose/drama | - ditto- | <ul style="list-style-type: none"> <i>The Gods are not to Blame</i> <i>Lovestrokes</i> | - ditto - |

- For the years used for this study.

Table 3: Distribution of Cohorts 1A & 1B Students' Result in all Departments

| Course | Cohorts | No of Students | Grades 70 & above | Grades 69-60 | Grades 59-50 | Grades 49-40 | Grades Below 30 |
|---------|---------|----------------|-------------------|--------------|--------------|--------------|-----------------|
| GNS 101 | 1A | 1390 | 121(8.7%) | 291(20.8%) | 501(35.8%) | 387(27.7%) | 90(6.4%) |
| GNS 201 | 1B | 1489 | 9(0.6%) | 49(3.3%) | 252(16.9%) | 766(51.4%) | 413(27.7%) |

Source: Departmental Record

Table 4: Distribution of Students' Result across Departments (Cohort 1A & 1B)

| Dept | Level/ course | No of Students | Grades 70 & above | Grades 60-69 | Grades 50-59 | Grades 40-49 | Grades Below 40 |
|-------------|------------------|----------------------|-------------------------|-----------------|-----------------|-----------------|-----------------------|
| AQ&FM | 100L | 52 | - | 3(3.5%) | 22(42.3%) | 25(48.1%) | 2(3.8%) |
| | 200L | 73 | - | 3(4.1%) | 11(15.1%) | 44(60.3%) | 15(20.5%) |
| EMT | 100L | 72 | 20(27.8%) | 27(37.5%) | 21(29.2%) | 4(5.6%) | - |
| | 200L | 83 | - | 3(3.6%) | 5(6%) | 40(48.2%) | 35(42.2%) |
| PPCP | 100L | 32 | 7(21.9%) | 12(37.5%) | 5(15.6%) | 7(21.9%) | 1(3.1%) |
| | 200L | 28 | 1(3.6%) | 2(7.1%) | 5(17.9%) | 16(57.1%) | 4(14.3%) |
| AE&RD | 100L | 50 | 7(14%) | 15(30%) | 20(40%) | 6(12%) | 2(4%) |
| | 200L | 64 | - | - | 7(11%) | 36(56.3%) | 21(32.8%) |
| PBST | 100L | 34 | 9(26.5%) | 13(38.2%) | 8(23.5%) | 2(5.9%) | 2(5.9%) |
| | 200L | 32 | - | - | 4(12.5%) | 23(67.6%) | 5(14.7%) |
| ANN | 100L | 49 | - | 6(12.2%) | 24(49%) | 19(38.8%) | - |
| | 200L | 60 | - | 3(5%) | 16(26.7%) | 30(50%) | 11(18.3%) |
| APH | 100L | 79 | 2(2.5%) | 15(19%) | 43(54.4%) | 18(22.8%) | 1(1.3%) |
| | 200L | 86 | - | 2(2.3%) | 19(22.1%) | 55(64%) | 10(11.6%) |
| ABG | 100L | 58 | - | 11(19%) | 23(39.7%) | 23(39.7%) | 1(1.9%) |
| | 200L | 50 | 1(2%) | 1(2%) | 11(22%) | 34(68%) | 3(6.2%) |
| FST | 100L | 48 | 2(4.2%) | 5(10.4%) | 24(50%) | 15(31.3%) | 2(4.2%) |
| | 200L | 56 | 2(3.6%) | 8(14.3%) | 14(25%) | 28(50%) | 4(7.1%) |
| PRM | 100L | 24 | - | 5(20.8%) | 12(50%) | 6(25%) | 1(4.2%) |
| | 200L | 36 | - | - | 5(13.9%) | 13(36.1%) | 18(35.8%) |
| HSM | 100L | 77 | 1(1.3%) | 7(9.1%) | 32(41.6%) | 35(45.5%) | 2(2.6%) |
| | 200L | 81 | - | - | 9(11.1%) | 43(53.1%) | 29(35.8%) |
| AE&FM | 100L | 102 | 32(31.4%) | 22(21.6%) | 31(30.4%) | 13(12.7%) | 4(3.9%) |
| | 200L | 147 | - | 2(1.4%) | 5(3.4%) | 62(42.2%) | 78(53.1%) |
| SSc | 100L | 51 | 12(23.5%) | 24(47.1%) | 8(15.7%) | 6(11.8%) | 1(2%) |
| | 200L | 56 | - | 2(3.6%) | 5(8.9%) | 31(55.4%) | 18(32.1%) |
| HORT | 100L | 38 | 5(13.2%) | 24(63.2%) | 7(18.4%) | 1(2.6%) | 1(2.6%) |
| | 200L | 33 | - | - | 8(24.2%) | 14(42.4%) | 11(33.3%) |
| CPT | 100L | 45 | - | 5(11.1%) | 9(20%) | 23(51.1%) | 8(17.8%) |
| | 200L | 37 | - | - | 7(18.9%) | 24(64.9%) | 6(16.2%) |
| FWM | 100L | 31 | 4(12.9%) | 9(29%) | 15(48.4%) | 2(6.5%) | 1(3.2%) |
| | 200L | 64 | - | 1(1.6%) | 8(12.5%) | 34(53.1%) | 23(39.9%) |
| BIO | 100L | 46 | 1(12.2%) | 5(10.9%) | 9(19.6%) | 23(50%) | 8(17.4%) |
| | 200L | 57 | - | 2(3.5%) | 12(21.1%) | 25(43.9%) | 18(31.6%) |
| CHEM | 100L | 45 | 7(15.6%) | 16(35.6%) | 16(35.6%) | 4(8.9%) | 2(4.4%) |
| | 200L | 48 | - | 2(4.2%) | 7(15.6%) | 20(41.7%) | 19(39.6%) |
| PHY | 100L | 92 | - | 13(14.1%) | 45(48.9%) | 26(28.3%) | 8(8.7%) |
| | 200L | 82 | - | 1(1.2%) | 23(28%) | 45(54.9%) | 13(15.9%) |
| VET | 100L | 33 | 2(6.1%) | 9(27.3%) | 14(42.4%) | 8(24.2%) | - |
| | 200L | 26 | 2(7.7%) | 4(15.4%) | 10(38.5%) | 7(26.9%) | 3(11.5%) |
| AGROM ET | 100L | 47 | - | 4(8.5%) | 13(27.7%) | 24(51.1%) | 6(12.8%) |
| | 200L | 39 | - | - | 1(2.6%) | 23(59%) | 15(38.5%) |
| COLENG | 100L | 47 | 5(10.6%) | 11(23.4%) | 13(27.7%) | 12(25.3%) | 6(12.8%) |
| | 200L | 36 | - | 3(8.3%) | 11(30.6%) | 15(41.7%) | 7(19.4%) |
| MICRO | 100L | 56 | 5(8.9%) | 21(37.5%) | 22(39.3%) | 7(12.5%) | 1(1.8%) |
| | 200L | 70 | 1(1.4%) | 1(1.4%) | 18(25.7%) | 37(52.9%) | 13(18.6%) |
| MATHS | 100L | 144 | - | 5(3.5%) | 37(25.7%) | 71(49.3%) | 31(21.5%) |
| | 200L | 130 | 2(1.5%) | 9(6.9%) | 28(21.5%) | 59(45.4%) | 32(24.6%) |
| BIOCHE M | 100L | 43 | - | 5(11.6%) | 15(34.9%) | 18(41.9%) | 5(11.6%) |
| | 200L | 45 | - | - | 7(15.6%) | 31(68.9%) | 7(15.6%) |

Source: Departmental Record

Table 5: Distribution of Cohorts 2A & 2B Students' Result in all Departments

| Course | Cohorts | No of Students | Grades 70 & above | Grades 60-69 | Grades 50-59 | Grades 40-49 | Grades Below 40 |
|---------|---------|----------------|-------------------|--------------|--------------|--------------|-----------------|
| GNS 101 | 2A | 1417 | 18(1.3%) | 169(11.9%) | 453(31.9%) | 633(44.6%) | 148(10.4%) |
| GNS 201 | 2B | 1703 | 14(0.8%) | 114(6.7%) | 360(21.1%) | 921(54.1%) | 294(17.3%) |

Source: Departmental Record

Table 6: Distribution of Students' Result across Departments (Cohorts 2A & 2B)

| Dept | Level/ course | No of Stu- dents | Grades 70 & above | Grades 60-69 | Grades 50-59 | Grades 40-49 | Grades Below 40 |
|---------|------------------|------------------------|-------------------------|-----------------|-----------------|-----------------|-----------------------|
| AQ&FM | 100L | 55 | 1(1.8%) | 13(23.6%) | 16(29.1%) | 21(38.2%) | 4(7.3%) |
| | 200L | 77 | - | 1(1.3%) | 12(15.6%) | 45(58.4%) | 19(24.7%) |
| EMT | 100L | 50 | - | 10(20%) | 26(52%) | 11(22%) | 3(6%) |
| | 200L | 75 | - | - | 5(6.7%) | 46(61.3%) | 24(32%) |
| PPCP | 100L | 48 | - | 4(8.3%) | 10(20.8%) | 27(56.3%) | 7(14.6%) |
| | 200L | 57 | - | 1(1.8%) | 3(5.3%) | 33(57.9%) | 20(35%) |
| AE&RD | 100L | 63 | - | 3(4.8%) | 16(25.4%) | 37(58.7%) | 7(11.1%) |
| | 200L | 90 | - | 9(10%) | 34(37.8%) | 41(45.6%) | 6(6.6%) |
| PBST | 100L | 49 | - | 3(6.1%) | 18(36.7%) | 27(55.1%) | 1(2%) |
| | 200L | 54 | - | 14(25.9%) | 24(44.4%) | 16(29.6%) | - |
| ANN | 100L | 63 | - | 4(6.3%) | 15(23.8%) | 38(60.3%) | 6(9.5%) |
| | 200L | 85 | - | 2(2.4%) | 10(11.8%) | 57(67%) | 16(18.8%) |
| APH | 100L | 72 | - | 1(1.4%) | 22(30.6%) | 40(56.3%) | 9(12.7%) |
| | 200L | 85 | - | 2(2.4%) | 12(14.1%) | 54(63.5%) | 17(20%) |
| ABG | 100L | 55 | - | 4(7.3%) | 19(34.5%) | 26(47.3%) | 6(10.9%) |
| | 200L | 58 | - | 3(5.2%) | 10(17.2%) | 39(67.2%) | 6(10.3%) |
| FST | 100L | 55 | 1(1.8%) | 5(9.1%) | 22(40%) | 23(41.8%) | 4(7.3%) |
| | 200L | 48 | - | 1(2.1%) | 11(22.9%) | 31(64.6%) | 5(10.4%) |
| PRM | 100L | 48 | - | 2(4.1%) | 9(18.8%) | 28(58.3%) | 9(18.8%) |
| | 200L | 69 | - | - | 4(5.8%) | 32(46.4%) | 33(47.8%) |
| HSM | 100L | 86 | 1(1.2%) | 9(10.5%) | 28(32.6%) | 42(48.8%) | 6(6.9%) |
| | 200L | 69 | 1(1.4%) | 5(7.3%) | 18(26.1%) | 37(53.6%) | 8(11.6%) |
| AE&FM | 100L | 83 | 1(1.2%) | 6(7.2%) | 31(37.3%) | 34(41%) | 11(13.3%) |
| | 200L | 146 | 6(4.1%) | 24(16.4%) | 43(29.5%) | 64(43%) | 9(6.2%) |
| SSc | 100L | 52 | 1(1.9%) | 9(17.3%) | 16(30.8%) | 20(38.5%) | 6(11.5%) |
| | 200L | 66 | - | - | 6(9.1%) | 36(54.5%) | 24(36.4%) |
| HORT | 100L | 45 | 1(2.2%) | 2(4.4%) | 9(20%) | 30(66.7%) | 3(6.7%) |
| | 200L | 52 | 2(3.8%) | 2(3.8%) | 9(17.3%) | 29(55.8%) | 10(19.2%) |
| CPT | 100L | 42 | - | 5(11.9%) | 17(40.5%) | 17(40.5%) | 3(7.1%) |
| | 200L | 49 | - | - | 3(6.1%) | 28(57.2%) | 18(36.7%) |
| FWM | 100L | 43 | - | 7(16.3%) | 16(37.2%) | 15(34.9%) | 5(11.6%) |
| | 200L | 65 | - | 6(9.2%) | 14(21.6%) | 31(47.7%) | 14(21.5%) |
| BIO | 100L | 46 | - | 3(6.5%) | 14(30.4%) | 24(52.2%) | 5(10.9%) |
| | 200L | 49 | - | 2(4.1%) | 9(18.4%) | 29(59.1%) | 9(18.4%) |
| CHEM | 100L | 30 | - | 9(30%) | 6(20%) | 14(46.6%) | 1(3.4%) |
| | 200L | 40 | - | 2(5%) | 9(18.4%) | 26(65%) | 3(7.5%) |
| PHY | 100L | 54 | - | 5(9.3%) | 16(29.6%) | 28(51.8%) | 5(9.3%) |
| | 200L | 57 | - | 5(8.8%) | 23(40.4%) | 29(50.8%) | - |
| VET | 100L | 23 | 3(13%) | 7(30.4%) | 8(34.8%) | 4(17.4%) | 1(4.4%) |
| | 200L | 23 | - | - | 9(39.1%) | 12(52.2%) | 2(8.7%) |
| AGROMET | 100L | 65 | - | 6(9.2%) | 26(40%) | 24(36.9%) | 9(13.9%) |
| | 200L | 66 | 1(1.5%) | 16(24.2%) | 24(36.4%) | 21(31.8%) | 4(6.1%) |
| COLENG | 100L | 47 | 9(19.1%) | 16(34%) | 9(19.1%) | 6(12.8%) | 7(%)15 |
| | 200L | 26 | - | 4(15.4%) | 8(30.8%) | 11(42.3%) | 3(11.5%) |
| MICRO | 100L | 57 | - | 24(42.1%) | 16(28.1%) | 14(24.6%) | 3(5%) |
| | 200L | 72 | 3(4.1%) | 7(9.7%) | 20(27.8%) | 25(34.7%) | 17(23.6%) |
| MATHS | 100L | 150 | - | 5(3.3%) | 57(38%) | 72(48%) | 16(10.7%) |
| | 200L | 203 | - | 6(3%) | 35(17.2%) | 129(63.5%) | 33(16.3%) |
| BIOCHEM | 100L | 36 | - | 7(19.4%) | 11(30.6%) | 11(30.6%) | 7(19.4%) |
| | 200L | 32 | 1(3.1%) | 2(6.3%) | 5(15.6%) | 20(62.5%) | 4(12.5%) |

Source: Departmental Record

Table 7: Correlation of the Students' Result at 100 Level of the two Cohorts

| Course | Cohorts | No of Students | Grades 70 & above | Grades 60-69 | Grades 50-59 | Grades 40-49 | Grades Below 40 |
|---------|---------|----------------|-------------------|--------------|--------------|--------------|-----------------|
| GNS 101 | 1A | 1390 | 121(8.7%) | 291(20.8%) | 501(35.8%) | 387(27.7%) | 90(6.4%) |
| GNS 101 | 2A | 1417 | 18(1.3%) | 169(11.9%) | 453(31.9%) | 633(44.6%) | 148(10.4%) |

Source: Departmental Record

Table 8: Correlation of the Students' Result at 200 Level of the two Cohorts

| Course | Cohorts | No of Students | Grades 70 & above | Grades 60-69 | Grades 50-59 | Grades 40-49 | Grades Below 40 |
|---------|---------|----------------|-------------------|--------------|--------------|--------------|-----------------|
| GNS 201 | 1B | 1489 | 9(0.6%) | 49(3.3%) | 252(16.9%) | 766(51.4%) | 413(27.7%) |
| GNS 201 | 2B | 1703 | 14(0.8%) | 114(6.7%) | 360(21.1%) | 921(54.1%) | 294(17.3%) |

Source: Departmental Record

List of Acronyms

| | |
|---------|--|
| AQ&FM | Department of Aquaculture and Fish Management |
| EMT | Department of Environmental Science and Toxicology |
| PPCP | Department of Plant Physiology and Crop Protection |
| AE&RD | Department of Agric. Extension and Rural Dev. |
| PBST | Department of Plant Breeding and Seed Technology |
| ANN | Department of Animal Nutrition |
| APH | Department of Animal Production and Health |
| ABG | Department of Animal Breeding and Genetics |
| FST | Department of Food Science and Technology |
| PRM | Department of Pasture and Range Mgt. |
| HSM | Department of Home Science |
| AE&FM | Department of Agric. Econs. and farm Mgt. |
| SSc | Department of Soil Science |
| HORT | Department of Horticulture |
| CPT | Department of Crop Protection |
| FWM | Department of Forestry and Wildlife Mgt. |
| BIO | Department of Biology |
| CHEM | Department of Chemistry |
| PHY | Department of Physics |
| AGROMET | Department of Agrometeorology |
| MICRO | Department of Microbiology |
| MATHS | Department of Mathematical Sciences |
| BIOCHEM | Department of Biochemistry |
| VET | College of Vet. Medicine |
| COLENG | College of Engineering |