

# **Development of Learning Process Perceived by the Students of the Pharmacy Department of Different Universities in Bangladesh.**

A project submitted

by

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## CERTIFICATION

This is certified that, this project entitled “Development of Learning Process perceived by the students of Pharmacy Department” prepared and submitted for the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy (Hons.) from the Department of Pharmacy, BRAC University constitutes this work under the supervision of Shahana Sharmin, Senior Lecturer, department of Pharmacy, BRAC University and this project is the result of the author’s original research and has not previously been submitted for a degree in any university.

Signature:

Shahana Sharmin

Project supervisor

Date:

Signature:

## DECLARATION

I, SHARJANA RAHMAN, declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other university for a similar or any other degree award.

Signed:

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## **Abstract**

It had been identified that undergraduate pharmacy students had distinctive learning requirements. When university instructors were aware of the unique learning styles of undergraduate pharmacy students, they will have the capacity to adjust their teaching approaches to best fit with their students' learning preferences. The purpose of this study was to investigate the learning styles preferences of a group of undergraduate pharmacy students enrolled at three different universities of Bangladesh. The Kolb learning style inventory method was followed and a questionnaire had been developed which was distributed among approximately 300 students enrolled in undergrad pharmacy degree at three different universities. A total of 300 questionnaires were received containing responses. Among all the learning styles, students were more comfortable with e-learning and traditional methods for which 53.67% of students strongly agreed for E-learning style. The findings suggested that teacher should take into thought the educational style preferences of students once developing their course curricula and course define and that they should judge their teaching approaches, particularly after they measure designing, implementing and evaluating education initiatives to form a good learning surroundings for his or her students.

**Chapter 1**  
**Introduction**

## **1. Introduction**

Survey is a process, which is used to take a general or comprehensive read of or evaluate, as a state of affairs, space of study, etc. to look at well, particularly to examine, examine, or appraise formally or formally so as to establish condition, value, etc. (M.Ken Cor, & Michale J.Peters, 2015).

This analysis is on developing the learning process that is perceived by the pharmacy students of Bangladesh. For perceive to this survey first & for mostly we need to know what is learning process. Learning process is a process by which a person can develop him or herself according to an institutional way. Allowing to the New Social Learning by Tony Bingham and Marcia Conner-he express learning as the transformative process of taking in info when it internalized and mixed with what he had experienced,it changed what he knew and build on what he do. It is based on contribution, course, and replication. It was what can change them (M.Ken Cor, & Michale J.Peters, 2015)

From conversely Learning Works Seven Research-Based Principles for good Schooling by Susan Ambrose said that it is a process that lead to change which befalls as an outcome of involvement and from Adult Leamer by Malcolm Knowles-study is the process of achievement of knowledge and skill. Increases the possible of better-quality performance and upcoming knowledge. (M.Ken Cor, & Michale J.Peters, 2015).

This survey study is going to done by the undergraduate students of pharmacy department. The determination of this study is to examine the policy of the department of a university and also identify facilities what a student want in his or her student life or in education system. Preferred group of different universities undergraduate student are going to participate in this survey. Approximately five hundred students will be counted, three hundred students from three different private universities, and two hundred from my own university (BRAC University) participant. I am going to collect all the questions answers, analysis them with excel.

### **1.1 Steps of survey**

It may appear that conducting survey is a method for filling up the answers of the questioner, analysis them with statistics but everything should do step by step for a better

result. Need to understand importance of each step, follow steps to get better result of that particular step carefully.

**The steps of a survey are:**

The steps of the survey are:

- Set an Objectives;
- Selection of target group;
- Selection of the sample design:
- Questionnaire approval;
- Data collection;
- Editing and imputation;
- Data analysis (M.Ken Cor, & Michale J.Peters, 2015)

1.1.1- A description in follows:

**a) Formulation of the statement of objectives:** The main objective of this survey is to develop the administration system of a university, fill up the loophole, satisfy both the students & teachers, which is also beneficial for the administrative activities.

**b) Selection of a target group:** Target group is a very important part of survey program. A selected group of people will help us for the data selection.

**c) Determination of the sample design:** in survey analysis process, there are two types of survey system available 1) Sample survey 2) Census survey. In both survey system, sample is important part. Sample can be two types: 1) Non-probability sampling and 2) Probability sampling (Ellington, Mellon, & Beck, 2010).

Non-probability sampling means the samples, which use a subjective method, have an easy way to selection the sample from group. It is a process where all the sample of a targeted group are not getting chance to participate in survey. This rational sampling is done because of some loopholes like- time, money and workforce. There are several types of probability sampling that they are – (Ellington, Mellon, & Beck, 2010) Simple

Random Sampling, Stratified Random Sampling, Systematic Random Sampling, Cluster Random Sampling, Mixed Stage Random Sampling.

Probability sampling is also known as randomization. It means, selecting a random technique of sampling. In this technique basic is all the member of a target group will get equal chance of participation and all of them will get equal chance to be selected. For example, a person might have a better chance of choosing if they live close to the researcher or have access to a computer it helps a lot for further steps. Sampling gives the best chance to create a sample more accurate that is truly representative of the population. They are having different types of probability sampling; they are - Simple Random Sampling. (Brett Williams, Ted Brown, Jamie Etherington 2013);

- i. Stratified Random Sampling,
- ii. Systematic Random Sampling,
- iii. Cluster Random Sampling,
- iv. Mixed Stage Random Sampling.

Probability sampling are best for sample survey because of some advantages. It is a very sampling process and convenient. It will represent the important. It is very helpful and convenient. It is a short and precious method of sampling. In this research work I am using the sampling survey where sample is selected by probability sampling technique for choosing samples.

## **1.2 Questionnaire design**

A survey is a group of queries that designed to obtain evidence on a subject from the respondent. A perfect questioner is a playing a vital role in survey whatever the survey method. In every method sample or persons are going to answer a questioner which will be counted during analysis. This questioner can be hard copy or also can be soft copy . In doing a survey on a topic the main problem is going to face preparing a survey questioner. When preparing a questioner need to focus on the language of the questions. The language should be very simple and easy to understand to the person who are going to answer the questions.

## **1.2 Objective**

One of the foremost necessary tasks in an exceedingly survey is to formulate the Statement of This establishes not solely the survey's broad data desires, however the operational definitions to be used, the specific topics to be addressed and therefore the analysis set up. This step of the survey determines what's to be enclosed within the survey and what's to be excluded: what the shopper has to grasp versus what would be nice to understand. My survey is predicated on the educational method perceived by the pharmacy student of Bangladesh. (Tolu P. Akinwale, Alex J. Adams, Allions M. Dering-Anderson, Michael, Klepsar 2015).

#### **1.4 Survey target group**

The target group provides the destination and the estimation of the survey population. The target group can be formed by following points:

- i. Geographically
- ii. Physical lists like when students will be more available or students entered most in universities etc.
- iii. Psychological condition of the students.
- iv. Relationships between department & students. (Tolu P. Akinwale, Alex J. Adams, Allions M. Dering-Anderson, Michael, Klepsar 2015).

A survey target group will affect the data collections, data input, it may also responsible for sample selection, estimation, changing the method as well as the cost of the survey, quality of the output. Therefore, it is very important to select a survey frame very carefully. If the target group is not effective than full analysis output will be a meaningless for research.

In this survey, sample survey will be more appropriate than census survey because in census survey as sample of whole world will be counted, there will be no limit of sample or target group, this may cause data collection and input more problematic, it may also make more critical for analysis . On the other hand, sample survey will have a particular group of people, exact number of people, which can be maintained easily, data collection will be easier and analysis result will be more accurate.

#### **1.5 Data collection**

Data collection is the procedure of assembly the adequate data for distinct survey. This survey is done within three different private universities. The questioner is filled up by the students. They share their opinion through answering the questions. By gathering the data from the questioner we can state with a conclusion for better result. Data collection can be done by two types of process – one is computer input process and another one is questioner filled up by hand written process. The hand written filling up of questioner system was followed in this survey. This data will be imputed into excel file and did analysis for perfect result and graphical presentation (M.Ken Cor, & Michale J.Peters, 2015).

### **1.6 Data imputation**

Data imputation is done in excel file for exact and correct result. Imputation is a procedure to define values to solve problems of misplaced, invalid or inconsistent data. (Mariana Landin, Jorge Perez 2014).

### **1.7 Data analysis**

Data analysis involves summarizing the info and deciphering there that means during a method that has clear responses to queries that opened the survey. Information analysis ought to relate the survey results to the questions and problems known by the Statement of Purposes. It is one among the foremost crucial steps of a survey since the standard of the analysis will considerably have an effect on the quality of the total survey. Data analysis could be restricted to the survey information only or it should compare the survey's estimates with results obtained from different surveys or information of the sources. Often, it carryout of examining tables, charts and various outline measures, like frequency distributions and averages to summarize the information. Statistical abstract thought could also be utilized in order to verify hypotheses or study the relationships between characteristics, to illustrate, mistreatment reversion, analysis of variance tests

( Mariana Landin, Jorge Perez 2014).

### **1.8 Design and Development**

After customary a broad method outline, it is reliable to hold out elaborated work on the many steps of a survey, what is said as, the look an employment part. The objective of

this part is to search out the set of ways Associate in nursing actions that attain an acceptable balance of quality objectives and resource constraints. It is throughout this part that any needed pretests or pilot surveys square measure administrated to assess, parenthetically, the adequacy of the form, suitability of survey frame, operational procedures, etc. All field materials square measure ready for the data assortment stage. Software system programs for pc administered questionnaires square measure developed, or adapted, and tested. Sample choice and estimation procedures square measure formalized within the kind of specifications. Specifications for committal j writing, information capture, piece of writing and imputation square measure all ready to line the stage for processing. To be effective, procedures ought to be designed to manage and live the standard at every step of the survey and to assess the standard of the ultimate statistical merchandise (M.Ken Cor, & Michale J.Peters, (2015).

### **1.9 Implementation**

After confirmed that everyone structures area unit in situ, the survey will currently be published. This is often called the application stage. All survey alignment forms and manuals area unit written at the side of the form. Interviewers area people skilled, the sample is chosen and data is collected, all in a manner established throughout the event part Following these activities, processing begins. Processing activities embody information capture, coding, written material and imputation. The result's a well-structured and complete information set from that it's potential to provide needed tabulations and to analysis survey results. These results area unit then plaid for confidentiality and dispersed. At each step, information quality should be dignified and checked victimization strategies calculated and developed within the prior part(M.Ken Cor, & Michale J.Peters,2015).

**Chapter - 2**  
**Literature Review**

## 2. Literature review

Learning process development is not only for students but also it will help the teachers or supervisors to change the way of understanding students. For developing the study life different time different kind of paper published in the different specific area. Cor & Michael J, Peeters were talked about the using deception of the theory for dependable learning assessments papers in pharmacy education . Generalizability meaning offers a structure to understand and account multiple mobile facts that impact reliability. Generalizability theory or G theory is a statistical framework for conceptualizing, investigating, and designing reliable outcome. It is used to determine the reliability of measurements under specific conditions. It is particularly useful for assessing the reliability of performance assessments . It was originally introduced in Cronbach, L.J., Nageswari, R., & Gleser, G.C. (1963). It is worldwide accepted by many higher education settings that employed in the assessment of student's quality. This process is also used in health profession because it is a reliable process. This process is also described as classic measurement model for assessment. In case of pharmacy students, writer use this G-learning process on classroom testing and grading and another. They did two kinds of study:

Study 1: There have no any single examination had reliability  $>0.7$  where three examinations were analyzed together using G-theory specifically calculated by the g-coefficient of 0.82. This give a more precious result.

Study 2: G-theory can be used to analyze how best to set up future version of learning assessment. This process helps to reduce major measurement error and also improve

reliability. It also justifies a complete redesigning of the scoring(Mariana Landin, Jorge Perez,2014).

Without this process, it is hard to know how many items, rates, or number of occasions are needed to achieve optimal level of reliability. Akinwale, Alex J. Adams, Allison M, Anderson, Michael E. Klepser doing their research mainly focusing on public health improvement. With the recent changes in U.S health care delivery, patients and public health officials are creating opportunities for pharmacists to provide better clinical services and improve public health. Point of care (POC) testing for transferrable diseases and other Clinical Laboratory Improvement Amendments (CLIA) waived tests are useful tools for making clinical decisions. The goal of this article to present opinion based research experience with this POC and CLIA tools in community pharmacies to further integrate POC into pharmacy curriculum. Pharmacist should continue to educate to independently perform these tests and provide best care for patients and give similar techniques opportunities for playing role in this improvement process(Akinwale, Adams,M,Michael,Klepser,2015).

According to Landin, Perez, are both of them working to establish relationships together in class attendance and academic achievement in pharmacy courses at Santiago de Compostela University in Spain(Brett Williams, Ted Brown, Jamie Etherington 2013). Total number of student n = 342 are the target group of students. Here different course attendance was compared. In this unit the academic qualities of the students were controlled. Attendance and absenteeism is a problem that trouble all the educational authority including especially pharmacy department. This study was conducted with students enrolled in pharmacy elective courses at Santiago De Compostela University. Here majority of students are pharmacy (85.9%). Where 75% are female students. According to study this university provide two chances to the students for pass: first call & second call. A total number of 342 students where 81 students from 2004 academic year, 101 from 2005 to 2006 academic year, 82 from 2006 to 2007 academic year and 78 from 2007 to 2008 academic year. Here the previous academic also collected from authority to measure the quality of the students' performance. After this study they get that 50% of the students were never attending type students, 30% were never go to the class 13.7% students have attendance higher than 75%. This study shows clear absenteeism of the pharmacy students(Jeff Cain, Doneka.R Scott, Amy M. Tiemier, Paige Akers, Anne H. Metzger,2013).

Social media is using by the pharmacy faculty for betterment of student and faculty both. This article is written by Jeff, Scott, Tiemeier , Akers, AnneH. Metzger are mainly focusing on the use of the e-learning (M.Ken Cor, & Michale J.Peters,2015). This study examined that social media used by the pharmacy faculty members & their strategies for Facebook friending of students. This study objective is mainly identifying the opinion about the e-learning of the faculty & the friendship of student and faculty through the Facebook, how both of them respond to this learning process & how they maintain professionalism between them with each other. This varieties of e-learning symbolize blogs, microblogs, wikis, social videos & social networking. Recent days between the school students & different university students, scientist this e-learning is extensively used. this is often a lot of well-liked among the upper education school & and scientist. Two separate study disclosed that social media used among the scholars common. ninetieth of the upper education school are exploitation social media in courses for his or her skilled lives. At the edges of exploitation social media are keeping and maintaining connections between school & friends, quickly & simply organize folks for any seminar or events & utilization as a democratic teaching and learning surroundings. In recent day there have a look on topic “Friending” that refers & making formal on-line relationships within which users conform to acknowledge the affiliation and grant access to profile data & social media posts. From one study of pharmacy academic reported that majority of the college members weren't face book friend with their students for the sake of sure level of privacy. there's no such analysis that report violation of e-learning by students or peer was situated. These study had multiple functions, addressing varied aspects of pharmacy school members use of & views towards social media. This study was emailed to 358 pharmacy school members wherever we have a tendency to get forty-four.4% response. This study is finished with 5 totally different quite faculties of pharmacy. the full response rate is forty-four.8% may be a limitation.

Nelson, Allison, McCollum, Luckey, Clark, Paulsen, Malhotra, Brunner (2013) explicit getting ready to develop & implementation of skilled pharmacy within the program style to satisfy a good outcome within the pharmacy education system chiefly in Regis University college of pharmacy (Singleton & Straits, 2009.). This outcome is attained through the subject's like-biology, prescribed drugs, social/behavioral/administrative pharmacy & clinical sciences exploitation technology accentuation on instruction. a very important law of program is to style effectively & properly & students are going to be

center here. additionally, all this things, that are developed, are afterward delivered to the scholars. This program development ar going too organized by specializing in 3 categories-knowledge, skills & principles. among these points, crucial thinking, communication & cooperation are needed for triple-crown observe in democratic development. For achieving this instructional goals school feels to develop student-centered program. it's been shown that recent day's students are growing up with some qualities like multitasking, operating collaboratively through varied digital technologies. Moreover, the 2007 yankee Association of schools of Pharmacy Tutorial Affairs Committee delineate a path for program innovation and suggested that pharmacy education ought to focus on lot of category time drawback determination, thinking critically & communication rather than easy transmission of factual data (Dillman, Smyth, & Christian, 2014) . There have proof that understanding the fundamental of sciences improve clinical information & enhance diagnostic accuracy. The combination of meditative chemistry into a pharmacotherapy course was received by the scholars. A logical method would be preferred by pedagogic technique that specialize for in-class application of ideas to important solvents of issues. Students are more accountable for learning contents & ideas before class; most of the scholars are like the pre-class problem-solving. They additionally wished to develop cooperation skills for determination analytical drawback. the target of this study is to asses' student and school relationships through development of the program. This study permits getting ready program during this manner allowed for horizontal & consolidation of the topics that might be derived throughout the student's tutorial expertise (Check J., Schutt R. K.2012). In meeting with school throughout early implementation students indicated a lot of specific learning objectives. The progression rate of this study >90% in courses wherever progression depends on each individual & cooperation, a development of scholars within the introductory experiential element of the program was >99%. Our results are the primary to demonstrate that the bulk of the informative portion of an extremely integrated program is also delivered & the lead to positive, school & student perception knowledge with relevancy student engagement, self-learning & pre-class preparation, crucial thinking & general school & student's preference. A limitation of this study is inability thanks to the stage of development of the program, to for the last time demonstrate student learning with respect to master of the academic outcomes of the platform. Another limitation of this study issues the potential for biased perceptions.

**Chapter 3**  
**Objectives & Methodology**

### **3. Objectives**

The objective of this paper is to establish a perfect learning process that is mostly approved by the faculty and the students. If we follow, same traditional rules than it will make us boring which also cause loss of interest in study whatever it can institutional study or habit. For removing this monotony of study life this survey is done and write this but knowing the opinion of the students and also faculty. During this survey, interview was taken of faculty for getting knowledge about their opinion and after finishing the questioner this study found that student and faculty both are thinking about the same development but expressing way is different which make encourage me a lot for this survey (Singleton R. A., Straits B. C. 2009). The core objective is to assess the student and faculty to move into new learning processes rather than following the same traditional process. This is a paper of working on developing the student's facility, their study style what they want and what they expecting from their respected faculty.

<sup>14</sup>Though this study has core purpose, still it contains some other purpose too in pharmaceutical learning process development. In addition, this study helps to understand the students also faculty to know the facilities of being updated. This updating capability improve the adoption capabilities too of both faculty and student. For an example, e

learning as great example. Finally, the social media application helps both of us to save our time and energy in case of spreading out any news. A better knowledge of understanding learning style is big help in case study any course or subject or any other topic. Every subject or every topic cannot be done by same process. Learning needs diversity of students backgrounds increase technological advancement.

### **3.1 Methodology:**

This study is mainly follow the Kolb Learning Style method. This study contains the following parameters:

- I. Concrete experience,
- II. Reflective observation,
- III. Abstract conceptualization,
- IV. Active experimentation.



Figure: Kolb Learning Styles.

Kolb (1974) views learning as an integrated process with each stage being mutually supportive of and feeding into the next. It is possible to enter the cycle at any stage and follow it through its logical sequence. However, effective learning only occurs when a learner can execute all four stages of the model. Therefore, no one stage of the cycle is effective as a learning procedure on its own.

## **I. Concrete experience**

According to Kolb Learning style concept experience means getting things done for the students for upcoming classes with key points or in details, leading students to the topics effectively that they can understand, take risk because all the student cannot understand all the things easily so it is bit challenging for a faculty, there are few student who need special attention in the class so faculty should adaptive to that situation and finally a faculty should relate the topic with practical example so that students can easily understand.

## **II. Reflective observation**

Reflective observation meaning watching others or developing observations about one's own experience. At this point students can easily learn their topics through listening and watching them. Some student prefers to watch rather than do, tending to gather information and use imagination to solve problems. They are best at viewing concrete situations from several different viewpoints. This point is relating with them.

## **III. Abstract conceptualization**

Abstract conceptualization is an important part of the experiential learning process and can be a preferred learning style for many students. This point basically states that based on your observations and reflections, you form theories and conclusions about the studied topic. Every person has an own way of understanding and have a different way of remembering them. This point define the way of a student can remember a topic by his or her own way.

## **IV. Active experimentation**

lastly active experimentation meaning using theories to solve problems or make decisions. Active experimentation states that what a student learn from faculty will apply that on real life or try to relate the theory with real life.

### **3.1.1 Data collection**

Survey analysis could use a range of knowledge assortment strategies of the foremost questionnaires and interviews. Questionnaires could also be self-administered or administered by an expert, could also be administered separately or during a cluster, and usually embody a series of things reflective the analysis aims (Singleton R. A., Straits B. C. 2009). Questionnaires could embody demographic queries additionally to valid and reliable analysis instruments (Costanzo, Stawski, Ryff, Coe, & Almeida, 2012; (DuBenske et al., 2014; Ponto, Ellington, Mellon, & Beck, 2010). It is useful to the reader once authors describe the contents of the survey form in order that the reader will interpret and measure the potential for errors of validity, and dependability useful samples of articles that describe the survey instruments exist within the literature (Buerhaus et al., 2012).

Questionnaires could also be in paper kind and armored to participants delivered in Association in Nursing electronic format via email or Associate in Nursing Internet-based program admire Survey Monkey, a mix of each, giving the participant the choice to decide on that technique. It is most well-liked (Ponto et al., 2010). Employing a combination of strategies of survey administration will facilitate to confirm higher sample coverage (i.e., all people within the population having an opportunity of inclusion within the sample) thus reducing coverage error (Dillman, Smyth, & Christian, 2014; Singleton & Straits, 2009). maybe, if a scientist were to solely use Associate in Nursing Internet-delivered form, people while not access to a pc would be excluded from participation. Self-administered armored, group, or Internet-based questionnaires square measure comparatively low value and sensible for an outsized sample (Check & Schutt, 20) Conducting interviews is another approach to data assortment utilized in survey analysis is an important part of survey. Interviews may be conducted by phone, computer or in person and have the good thing about visual distinguishing the nonverbal response of the responder and subsequently having the ability to clarify the meant question. Associate in Nursing inquirer will use inquiring comments to acquire a lot of info regarding a question or topic Associate in Nursingd will request clarification of an unclear response (Singleton & Strait, 2009). Respondents can be expensive and time intensive and so square measure relatively impractical for big samples (Casal, R.C. ,2007).

### **3.1.2 Data entry**

All Editions of the Survey System embody interview vogue knowledge entry, that shows the queries and answer decisions on the screen. This straightforward technique suggests that individuals with very little or no coaching will enter knowledge quickly, expeditiously, and accurately. Gradually collect the data and make entry into the file that I made previously. This process made the work of way easier (Ndinoshiho, J.M, 2010).

### **3.1.3 Data analysis**

Studying any survey, ancient, consists of variety of reticulated processes that area unit supposed to be summarized, arranged and rework knowledge in to info. If the survey objective was merely gather knowledge for the information you need for doing any analysis. On the opposite hand, if the objective was to know the characteristics of typical customers, then you want to rework you raw ends up in to info which will alter you to color a transparent image of your customers (Ndinoshiho,J.M, 2010).

Assuming that you would like to investigate the info collected from your survey, the method begins with a fast review of the results followed by redaction, analysis and coverage to confirm that you had got correct knowledge before investing important time for analysis. It is necessary that you simply do not begin analyzing results till you have got completed the review and redaction method ((D.R. Gateway,2010).

Analysis is the most vital fact of your survey research. At this point you have got collected information that has to be currently became unjust information. The method of study will cause a range of different courses of action. Mistakes throughout analysis will cause expensive choices down the road, thus extreme caution and carefulness to the review should be followed throughout the method. Careless mentality throughout the analysis will cause disaster. What you are doing throughout analysis can ultimately verify if your survey project may be interrogated or not. (D.R. Gateway,2010).

## **Chapter 4**

## Results

### 4. Results

In this survey following the Kolb learning Style which contains four parameters. According to the style and survey students indicate more specific process E-learning. E-learning is related with Concrete experience point because in case of e-learning process a faculty should prepare themselves before class with class notes or key point or more specifically power point presentation. So, Kolb Learning Style followed by this paper. Again, Reflective observation is the way of learning of a student. Some student learns from listening or by watching the writing on the power point. So study also state Kolb Learning Style. Now Abstract conceptualization is also related with this survey by group assignment helping students to solve analytical problems. According to this point, what a student saw in the power point or in book will make his or her own way of understanding that make a clear concept in his or her mind. This point also reflects the questions like students are more comfortable with e-learning because they learn by watching on PowerPoint which make it easier. Again the laboratory courses are an effective way of learning, this helps students learn by watching the theory practically. Active

experimentation is the strongest key point relating with Kolb Learning Style. According to this point, students are judged by the faculty by solving the case studies, giving presentation, do assignments and lastly by examination. The stage of learning where a person uses theories to help them solve problems or make decisions. This point relates with presentation improve communication skills, department provides research facilities,

Strongly Agree(SA)	Agree(A)	Neutral(N)	Disagree(D)	Strongly Disagree(SD)
53.67%	42.67%		3.67%	

department provide scholarships for students for encouragement, there have chance for corporate presentation. Other points like-students demanded about the advancement of the department, faculty and the study materials like online book publish, notes in form of PDF or word file etc. in this point the tables will show the students who were participated in this survey and their clear opinion about the development. I am showing below the study of my survey graphically and in chart for better understanding.

#### 4A: Learning process Perceived by Faculty

Table 4.1: Percentage of E-learning is encouraged by faculty.

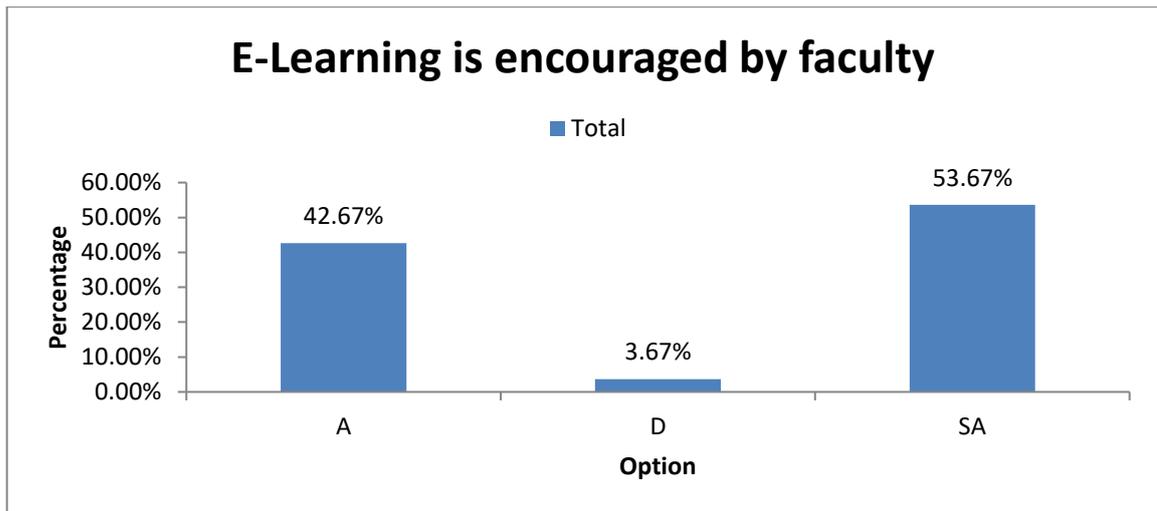


Figure 4.1: Percentage of E-learning is encouraged by faculty.

Table 4.2: Percentage of Faculty provides pre-lecture notes among the students.

Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)
15.00	47.00%	38.00%	

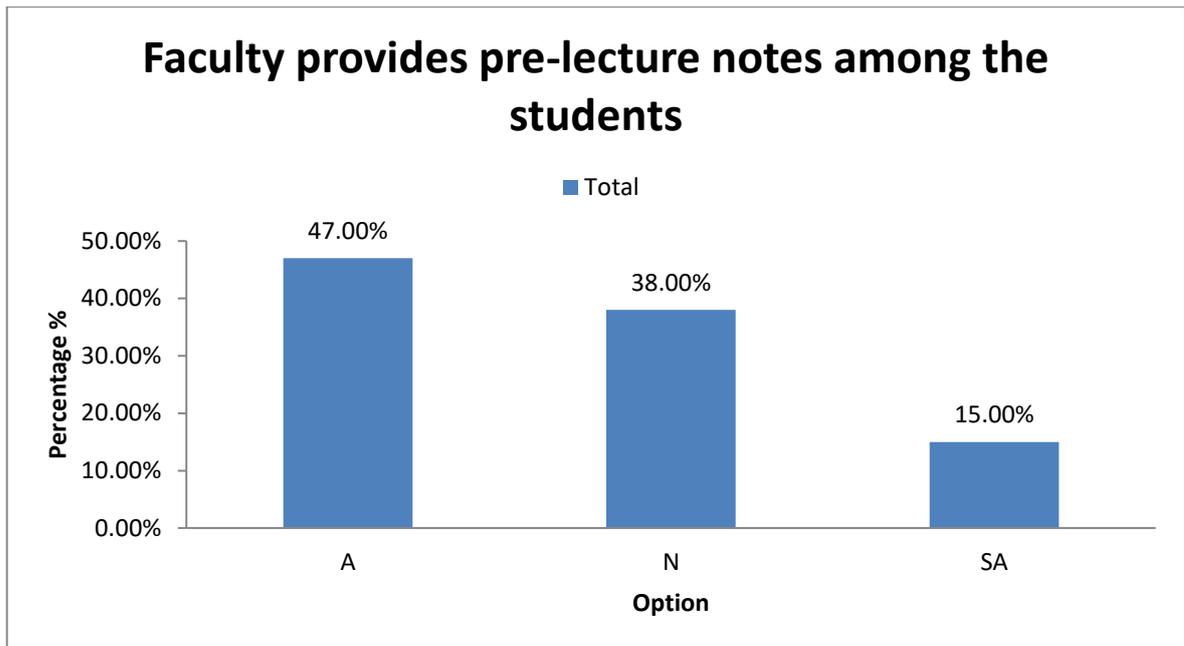


Figure 4.2: Percentage of Faculty provides pre-lecture notes among the students.

Table 4.3: Percentage of faculty always prompts for helping the student.

Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)
11.33%	44.67	44	

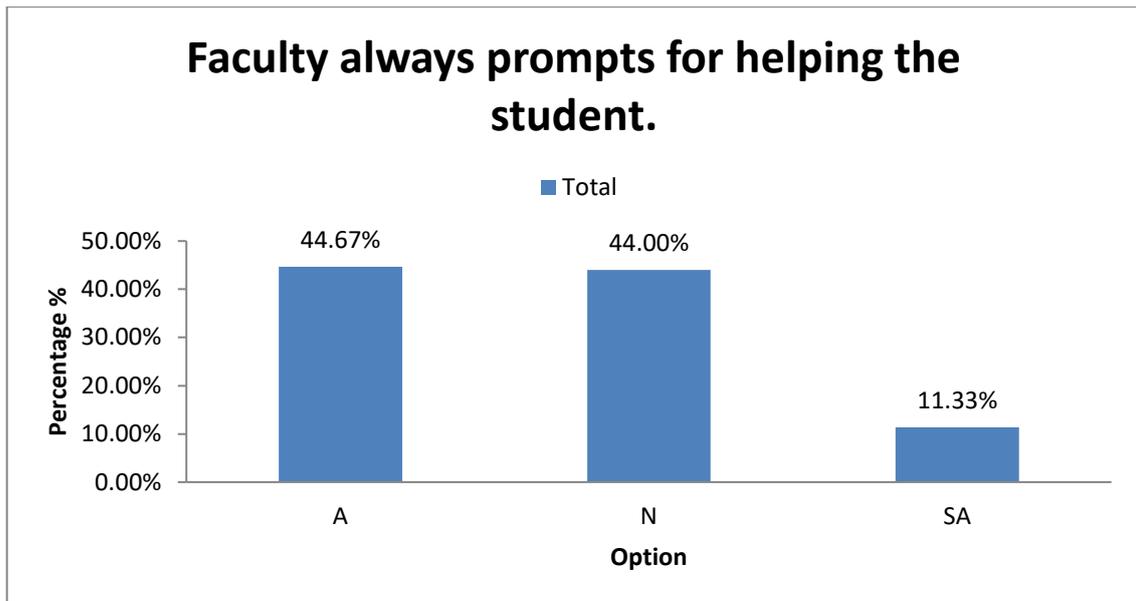


Figure 4.3: Percentage of faculty always prompts for helping the student.

Table 4.4: percentage of class participation is gradually being encouraged by faculty.

Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)
11.33%	55.33%	33.33%	

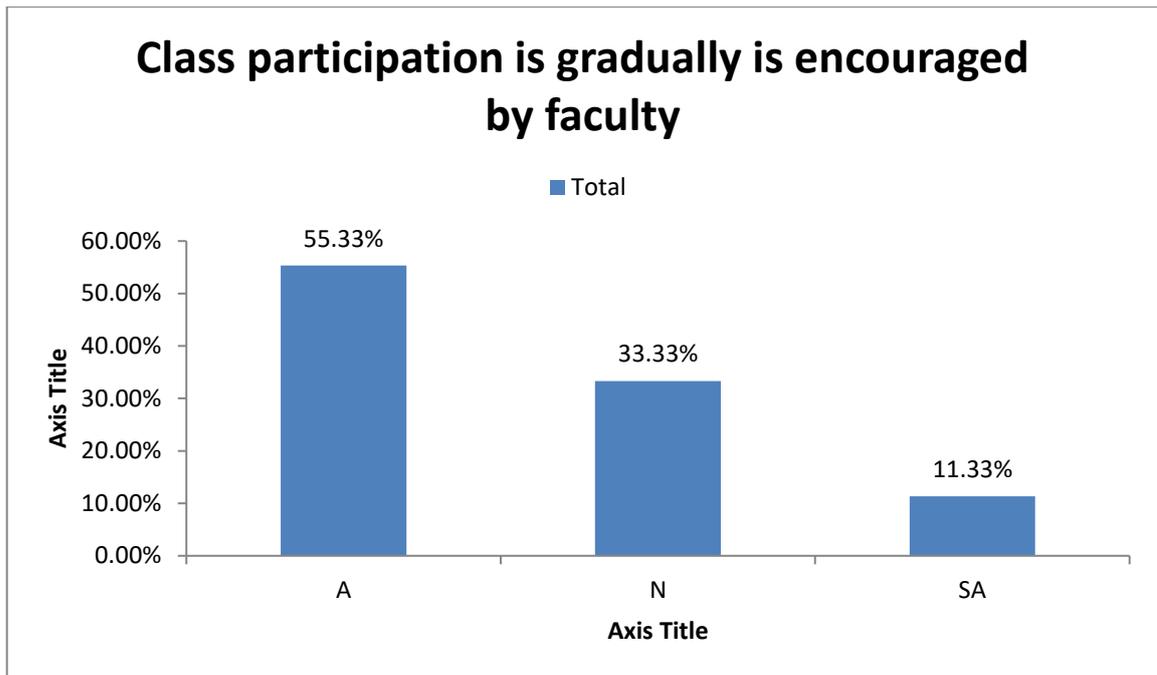


Figure 4.4: percentage of class participation is gradually being encouraged by faculty.

Table 4.5: Percentage of informative Courses (biopharmaceutical) are more difficult than textbook base (pathology) courses.

Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)

0	44.00%	56.00%	0
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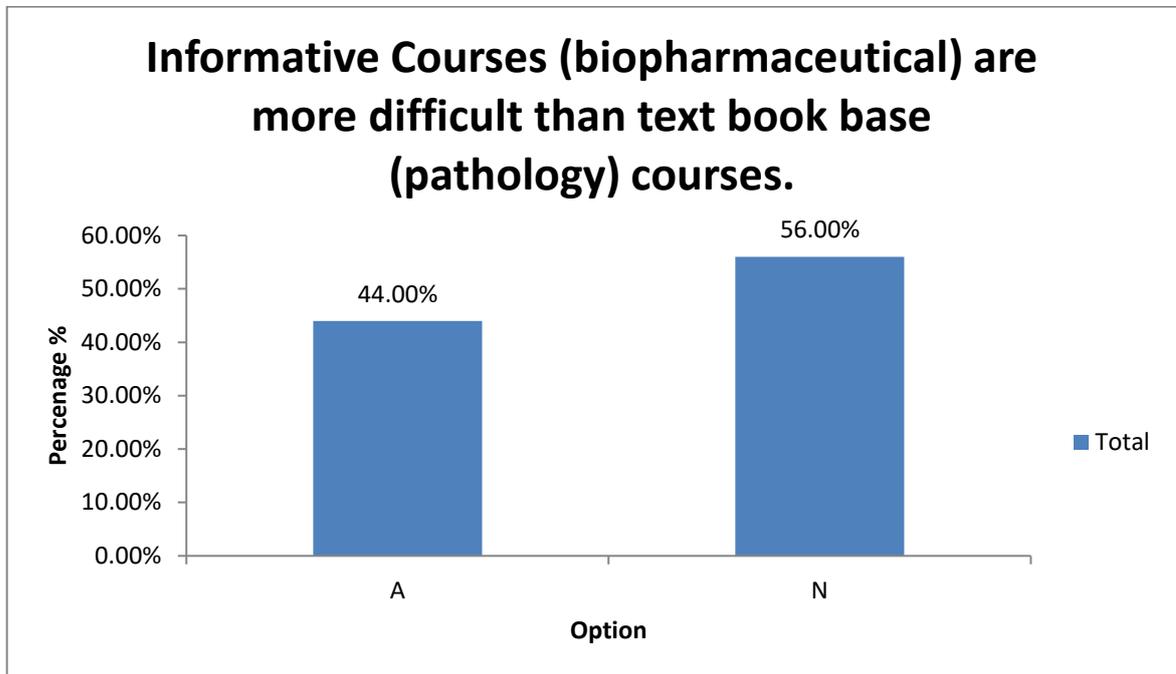


Figure 4.5: Percentage of informative Courses (biopharmaceutical) are more difficult than textbook base (pathology) courses.

**4B: LEARNING PROCES PERCEIVED BY STUDENTS**

Table 4.6: Percentage of students are more comfortable with e-learning than traditional method.

Yes (Y)	No (N)
92.00%	8.00 %

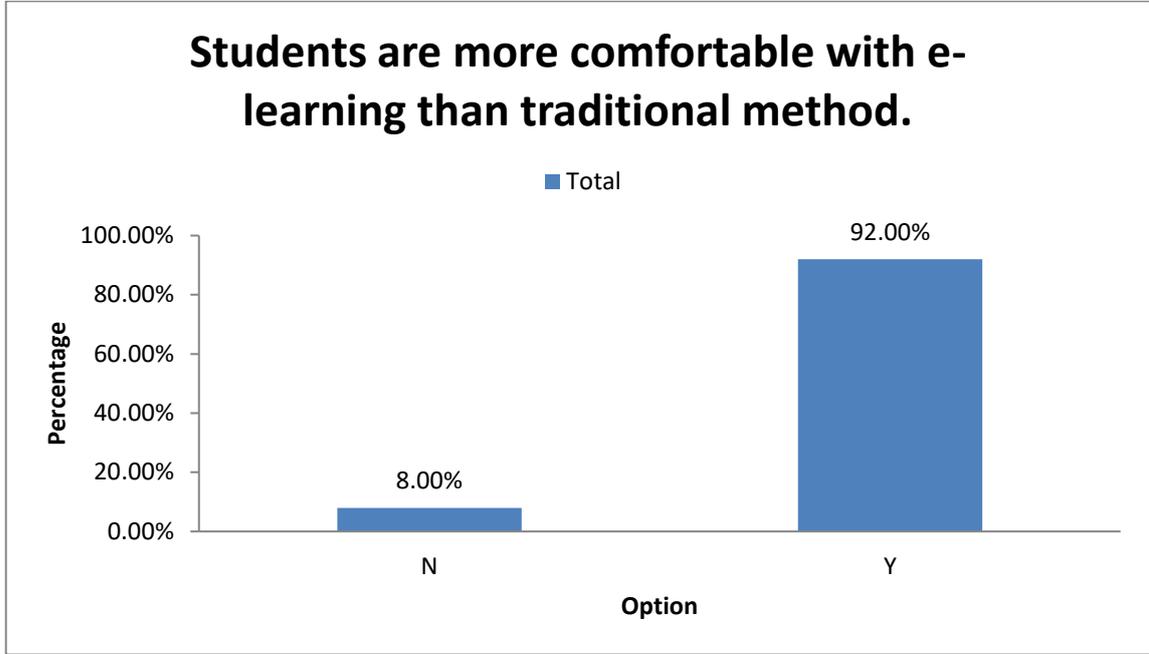


Figure 4.6: Percentage of students are more comfortable with e-learning than traditional method.

Table 4.7: Percentage of group assignment helps to improve critical analysis.

Yes (Y)	No (N)
100.00%	0 %

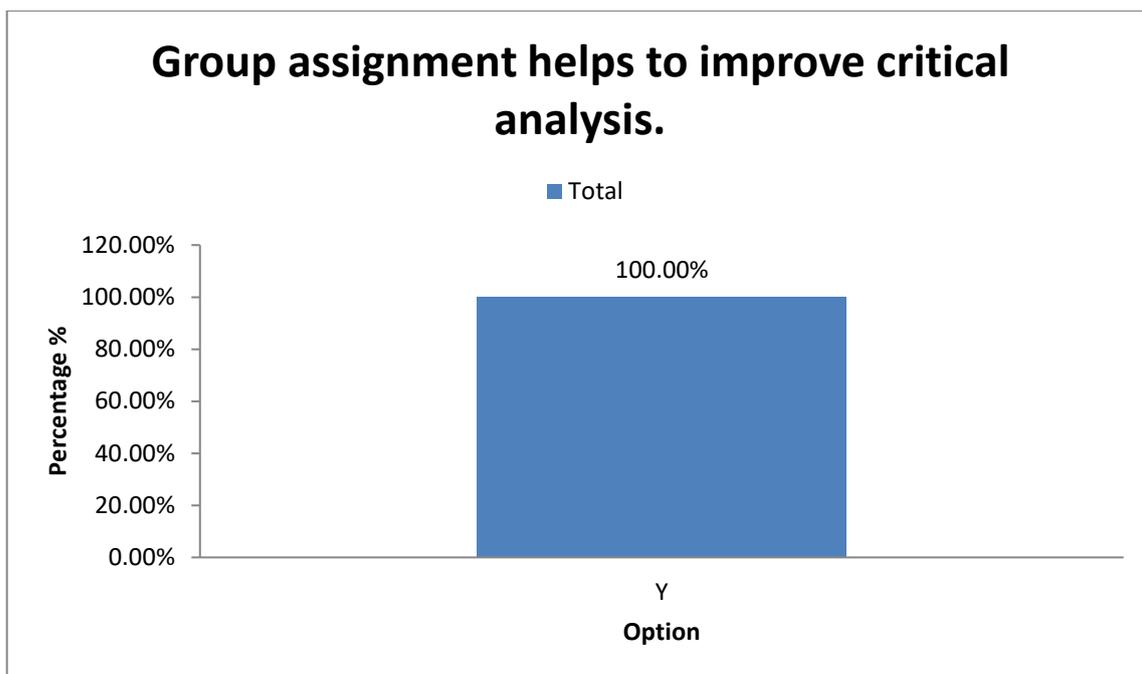


Figure 4.7: Percentage of group assignment helps to improve critical analysis.

Table 4.8: Percentage of Students learn about research work from B.pharm project work.

Yes (Y)	No (N)
82.00%	18.00 %

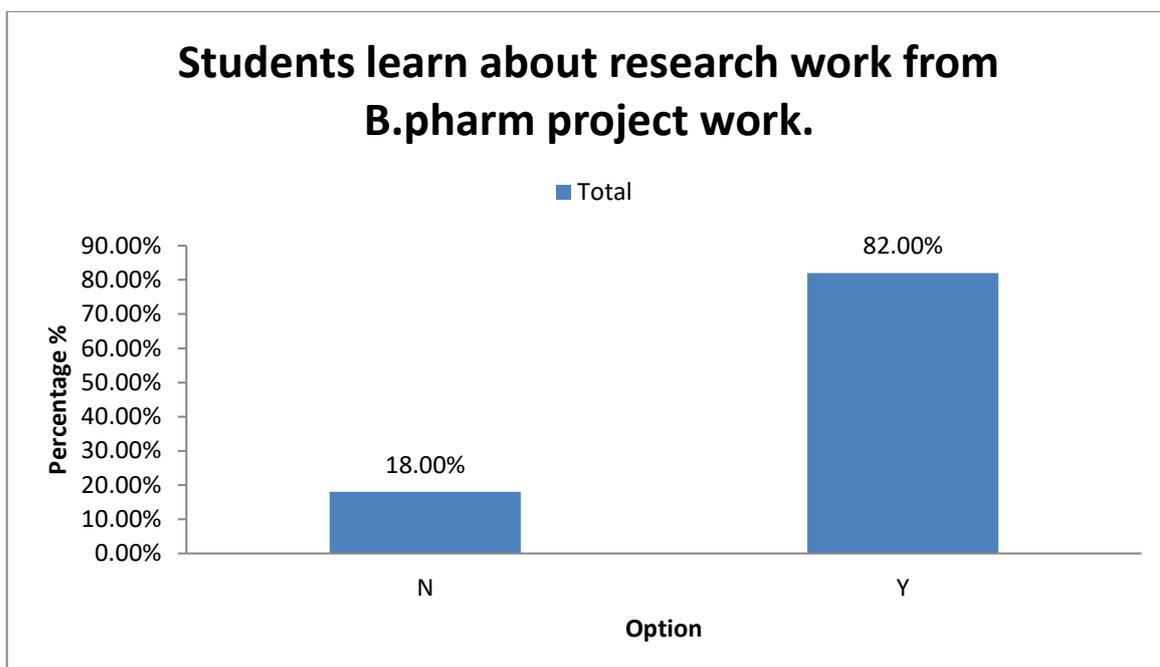


Figure 4.8: Percentage of Students learn about research work from B.pharm project work.

Table 4.9: Percentage of Student perceive different way of learning to remove monotony of study.

Yes (Y)	No (N)
100%	0 %

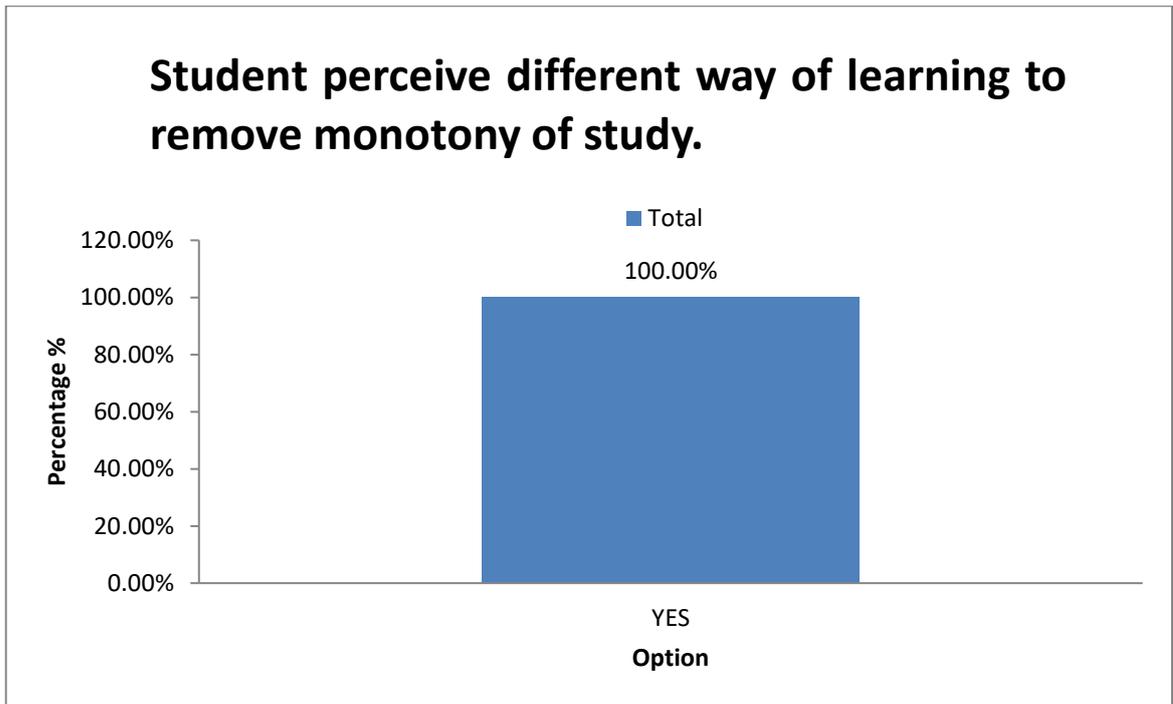


Figure 4.9: Percentage of Student perceive different way of learning to remove monotony of study.

Table 4.10: Percentage of presentation improves communication and professional skills of the students.

Yes (Y)	No (N)
---------	--------

67.67 %	32.33 %
---------	---------

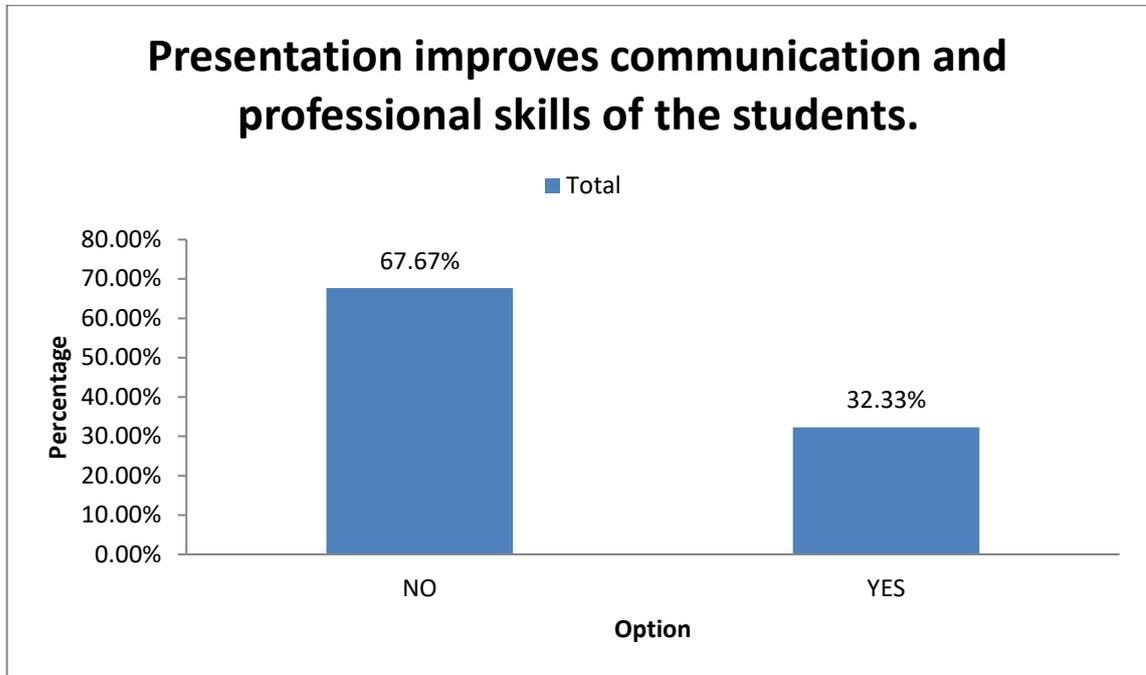


Figure 4.10: Percentage of presentation improves communication and professional skills of the students.

Table 4.11: Percentage of do the pharmaceutical laboratory courses create more interest to learn pharmacy.

Yes (Y)	No (N)
---------	--------

100 %	0 %
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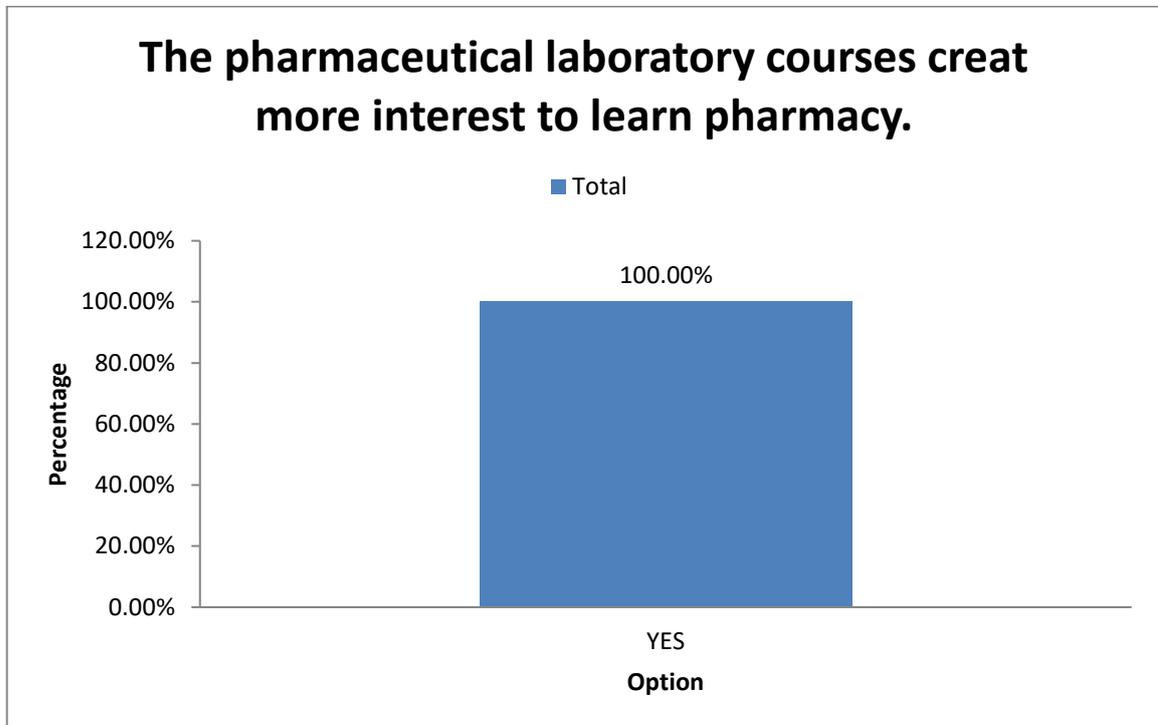


Figure 4.11: Percentage of do the pharmaceutical laboratory courses create more interest to learn pharmacy.

Table 4.12: Percentage of does each of the student get equal chance to perform in the laboratory courses.

Yes (Y)	No (N)
97.33 %	2.67 %

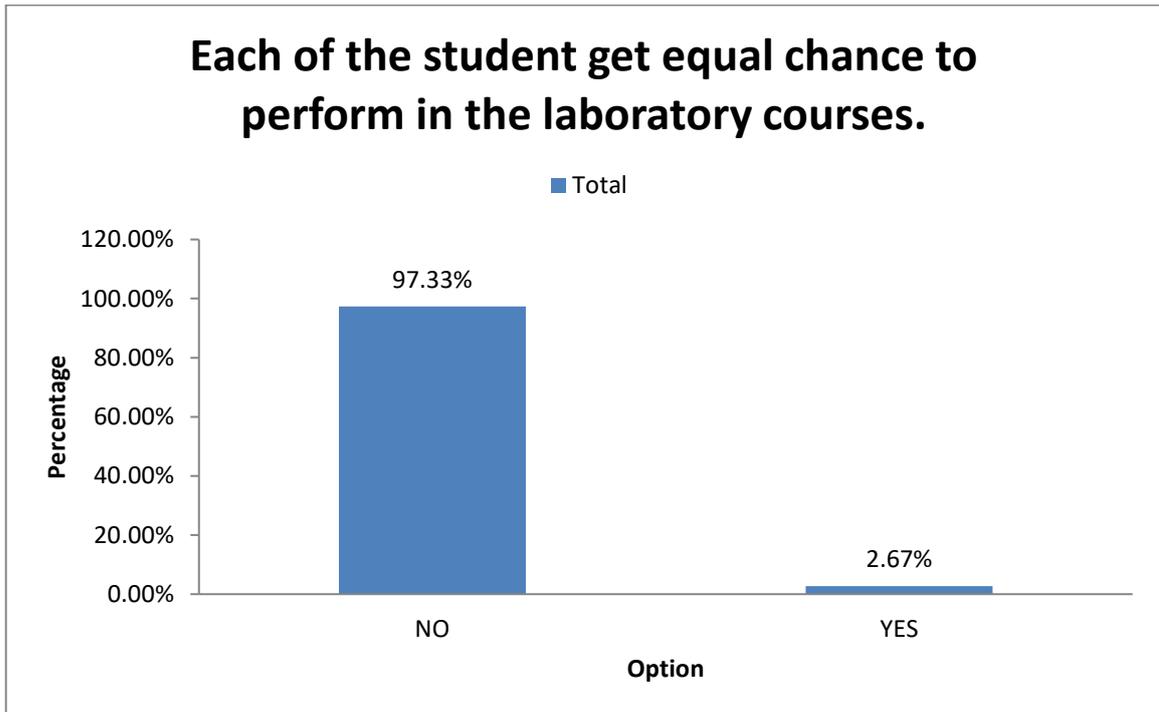


Figure 4.12: Percentage of does each of the student get equal chance to perform in the laboratory courses.

Table 4.13: Percentage of are laboratory courses essential for learning theoretical courses more effectively.

Yes (Y)	No (N)
100 %	0 %

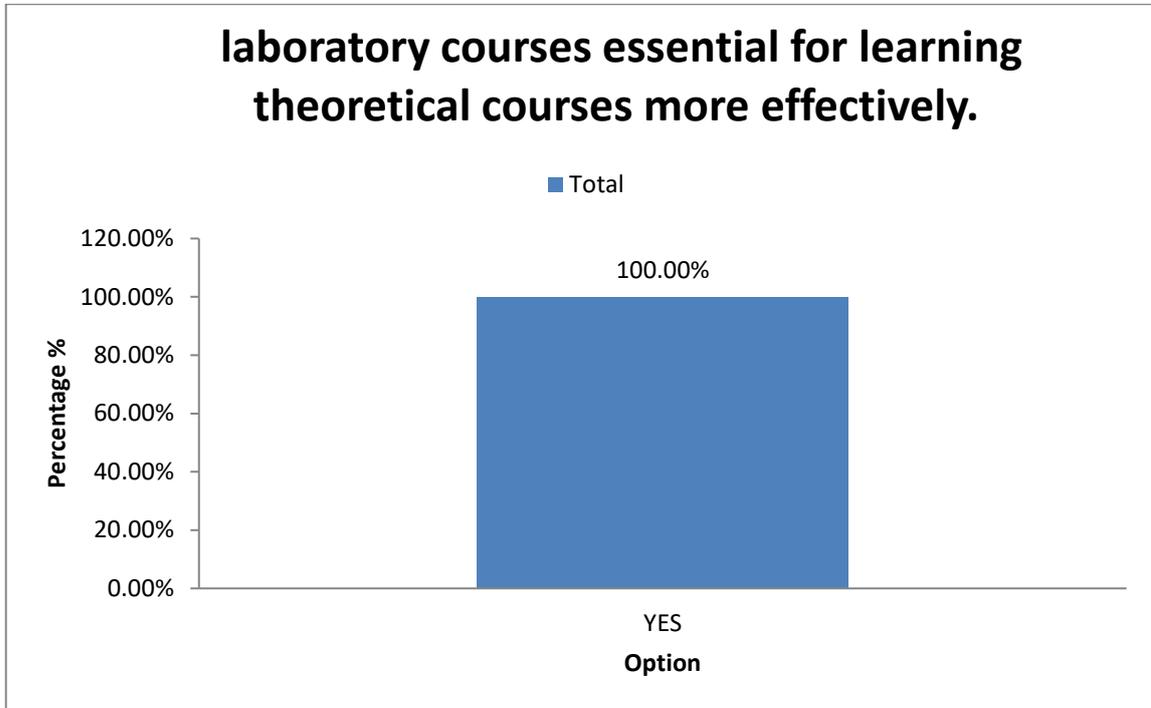


Figure 4.13: Percentage of are laboratory courses essential for learning theoretical courses more effectively.

Table 4.14: Percentage of does the pharmaceutical courses truly reflect theoretical courses.

Yes (Y)	No (N)
100 %	0 %

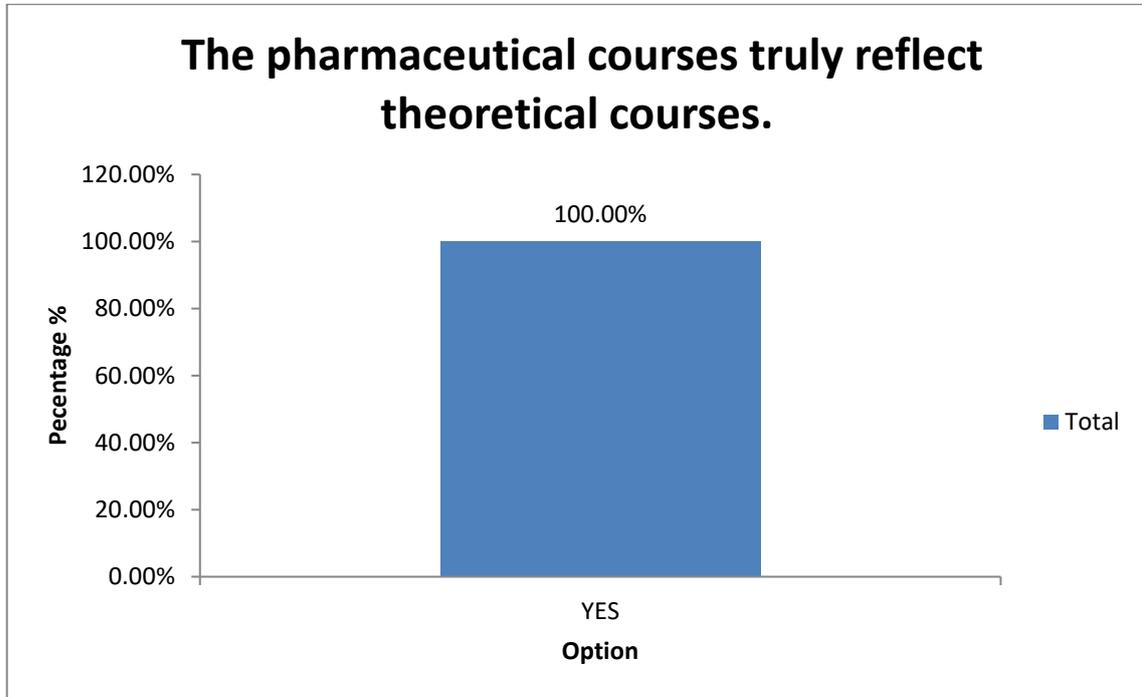


Figure 4.14: Percentage of does the pharmaceutical courses truly reflect theoretical courses.

Table 4.15: Percentage of students follow PubMed, labroots, and research gate for knowing about ongoing researches

Yes (Y)	No (N)
76.33 %	23.67 %

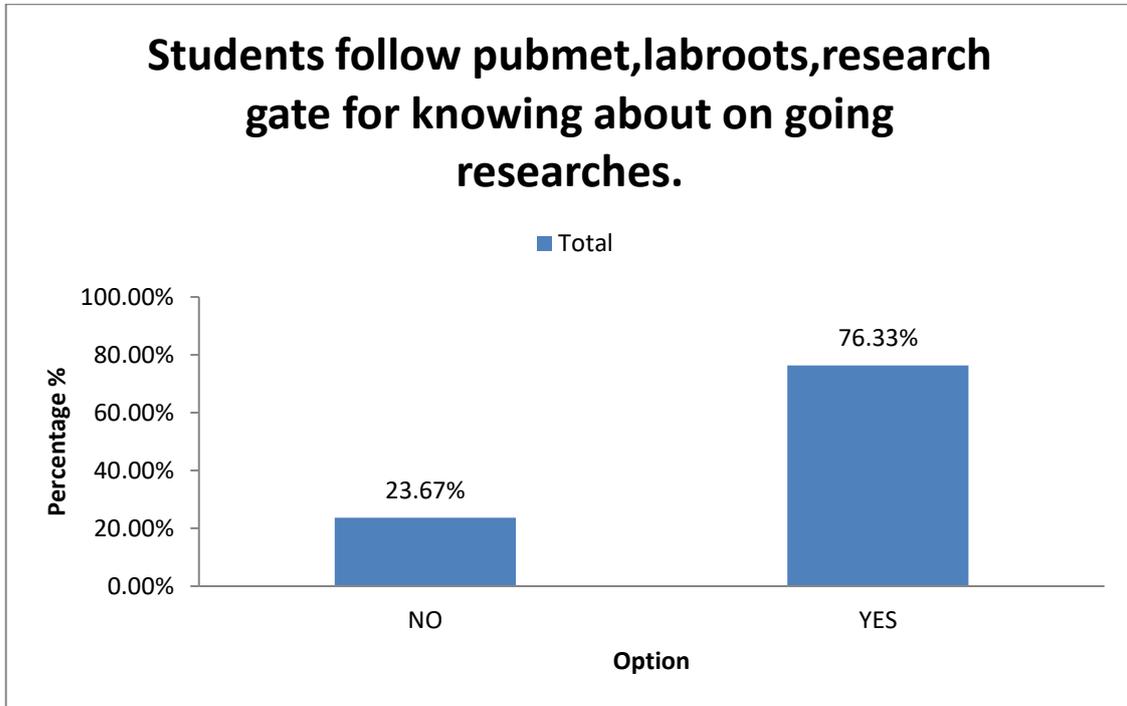


Figure 4.15: Percentage of students follow PubMed, labroots, and research gate for knowing about ongoing researches.

Table 4.16: Percentage of same faculty for laboratory theatrical courses are more effective than different.

Yes (Y)	No (N)
100 %	0 %

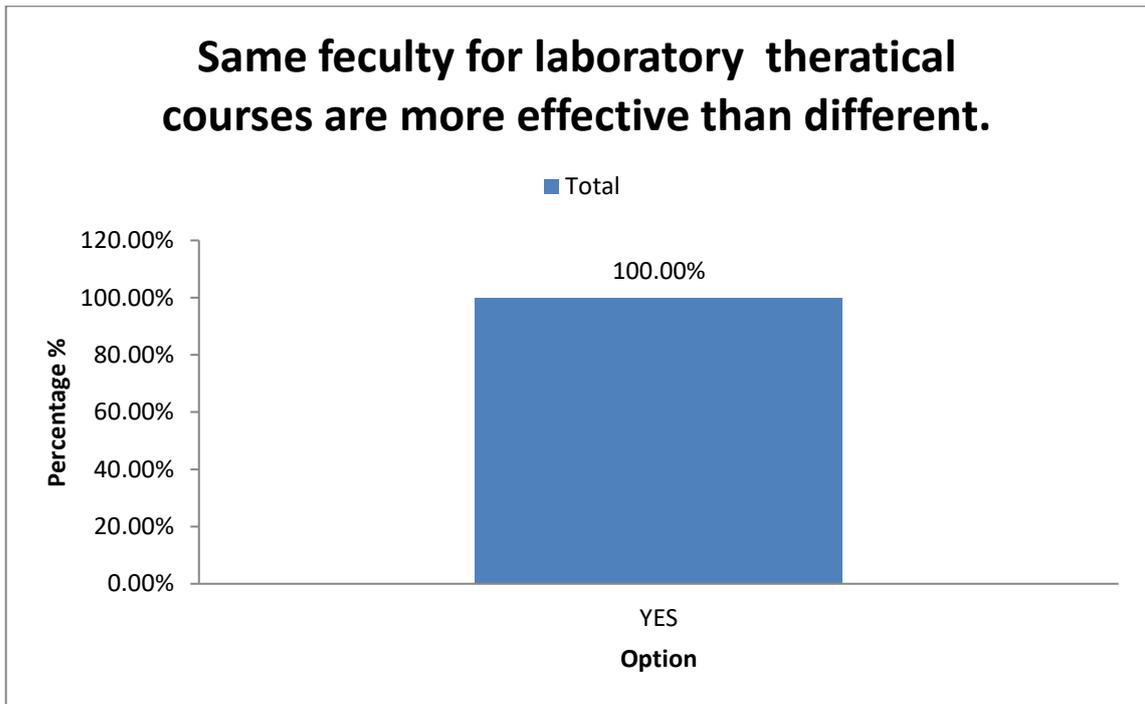


Figure 4.16: Percentage of same faculty for laboratory theatrical courses are more effective than different.

Table 4.17: Percentage of department follow National grading system recommended by UGC.

Yes (Y)	No (N)
100%	0%

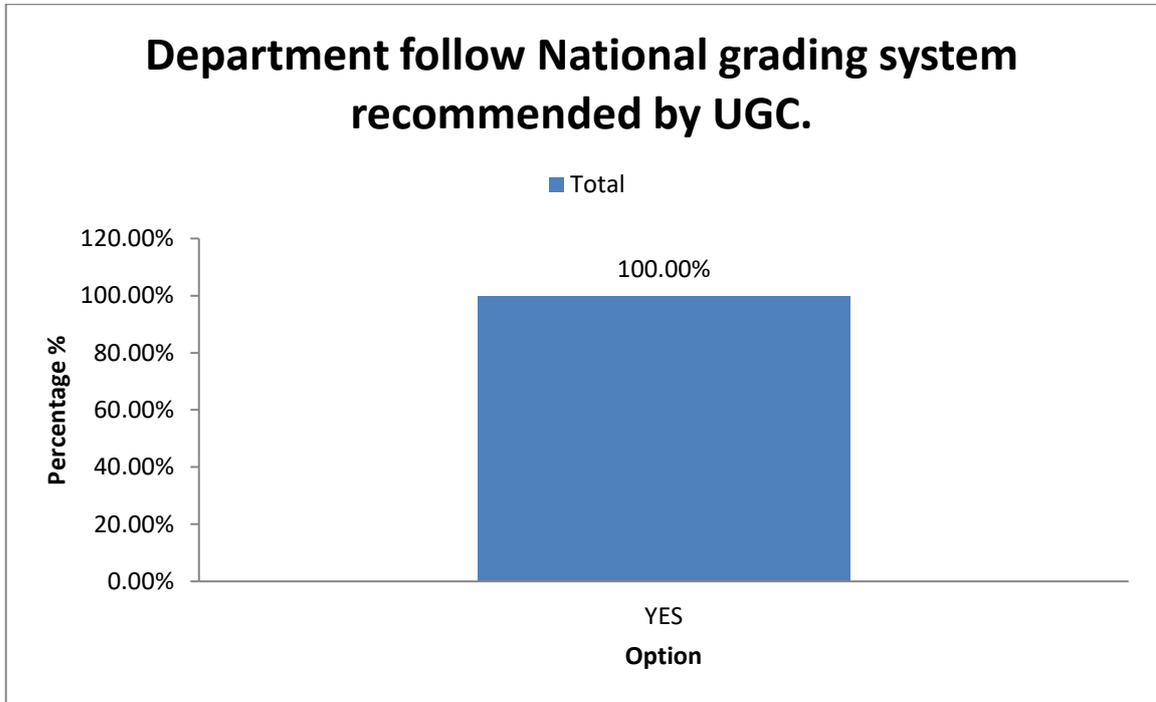


Figure 4.17: Percentage of department follow National grading system recommended by UGC.

Table 4.18: Percentage of theory based courses are more difficult than application based courses.

Yes (Y)	No (N)
82%	18%

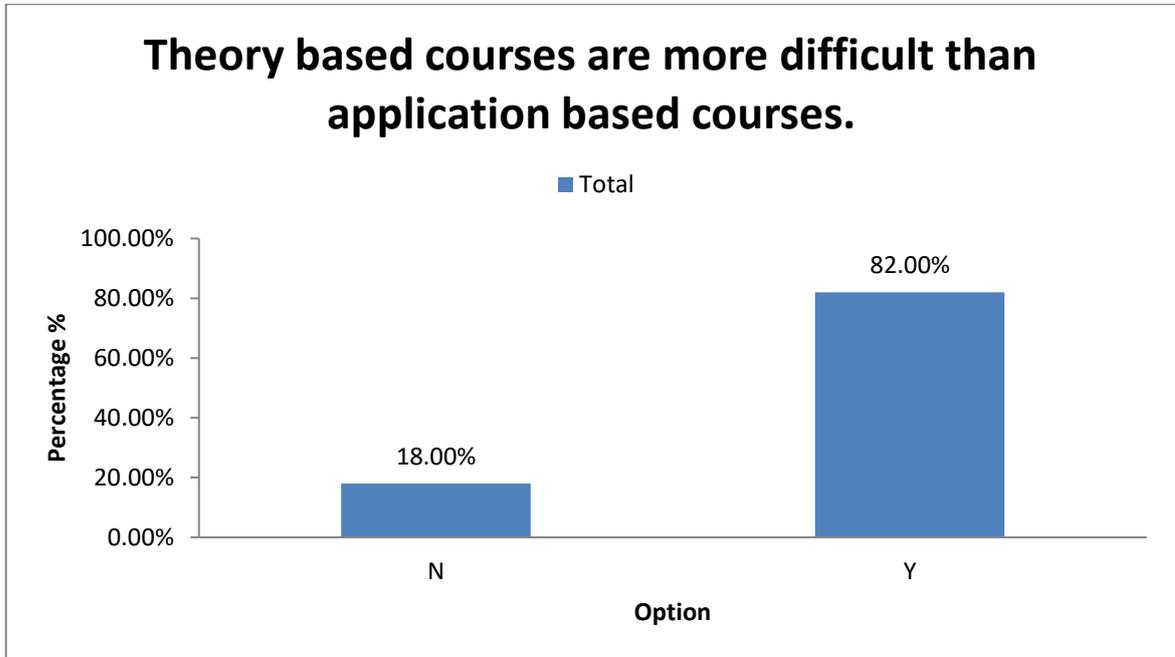


Figure 4.18: Percentage of theory based courses are more difficult than application based courses.

**4.2A: FACILITIES PROVIDED BY THE DEPARTMENT**

Table 4.19: Percentage of your department has their own seminar room for the students.

Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)
	100%		

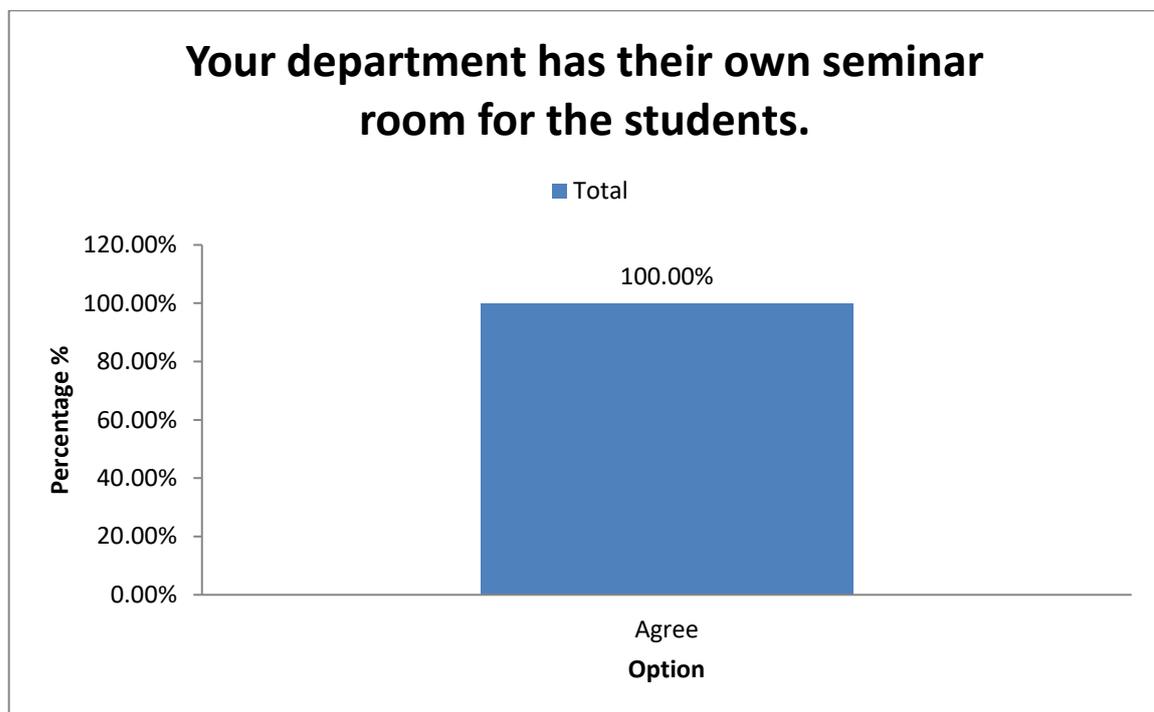


Figure 4.19: Percentage of your department has their own seminar room for the students.

Table 4.20: Percentage of the department has their own well developed campus.

Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)
	50.17%%		49.83%

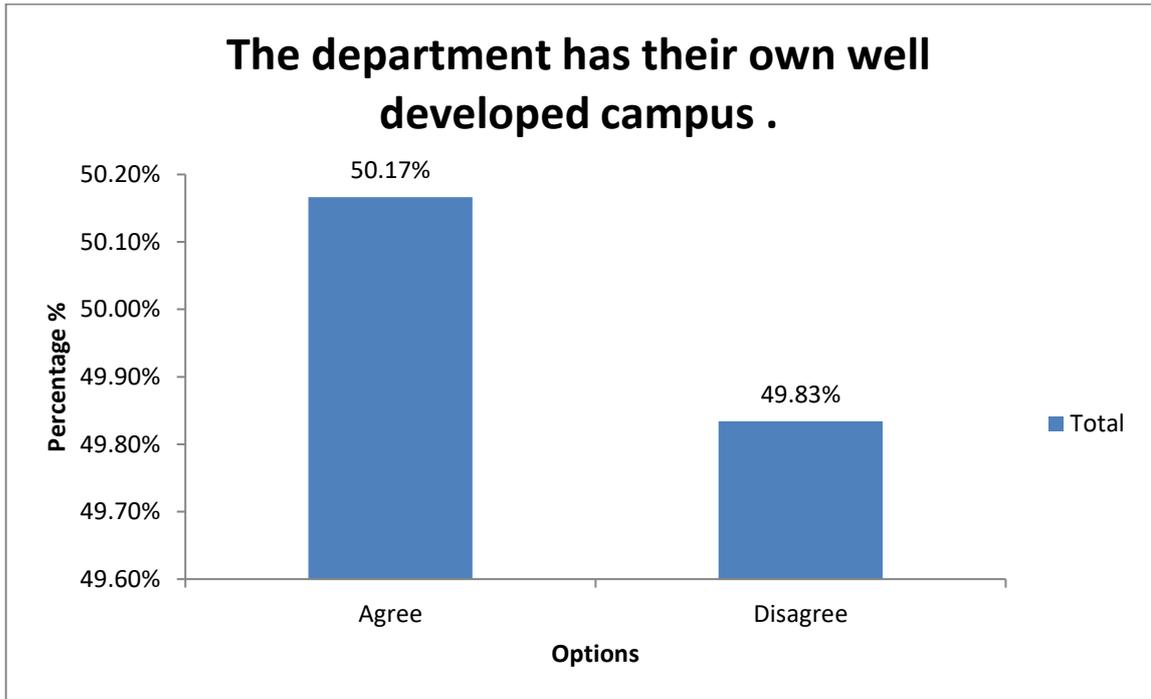


Figure 4.20: Percentage of the department has their own well developed campus.

Table 4.21: Percentage of do your department have lift facility for both faculty and students.

Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)
0%	100%	0%	0%

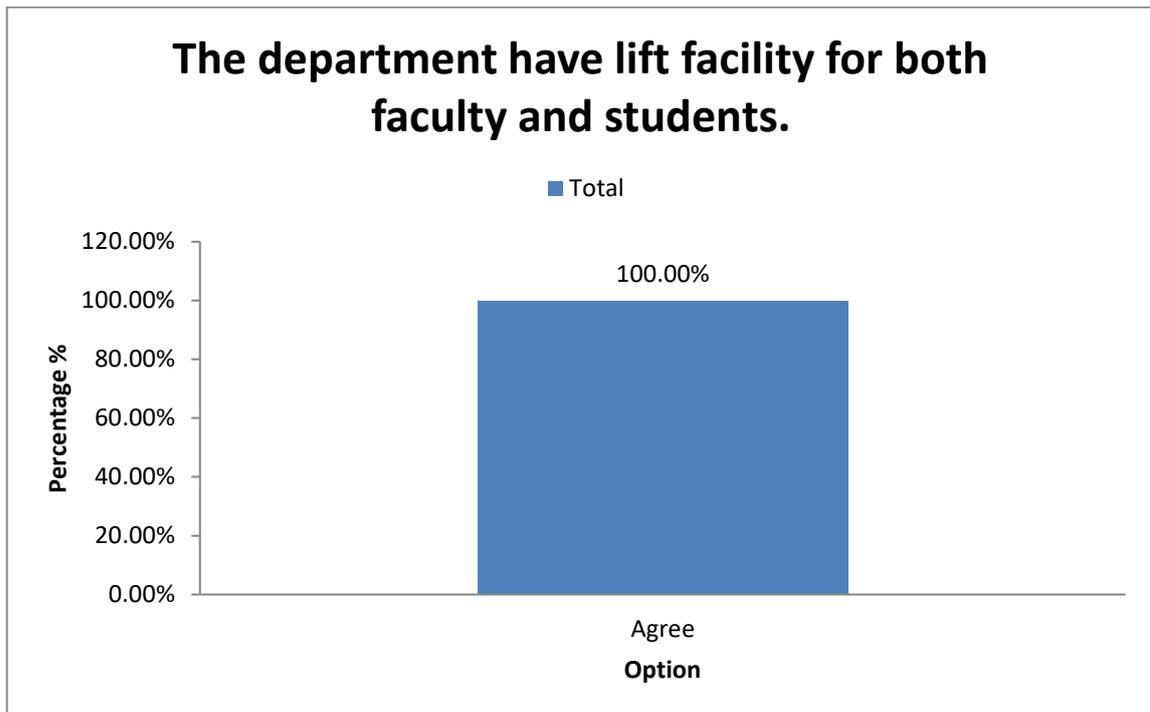


Figure 4.21: Percentage of do your department have lift facility for both faculty and students.

Table 4.22: Percentage of your department have separate laboratory facilities for different courses

Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)
0%	100%	0%	0%

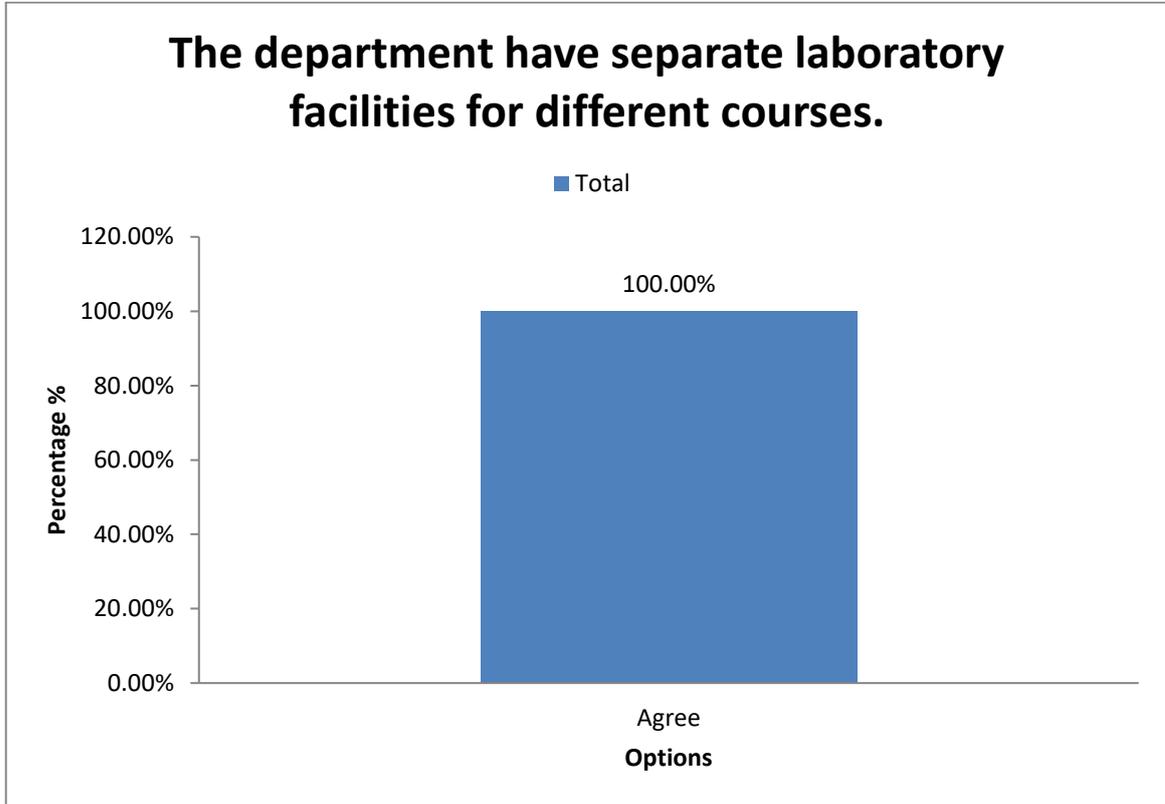


Figure 4.22: Percentage of your department have separate laboratory facilities for different courses.

Table 4.23: Percentage of your university provides adequate library facilities for students.

Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)
0%	100%	0%	0%

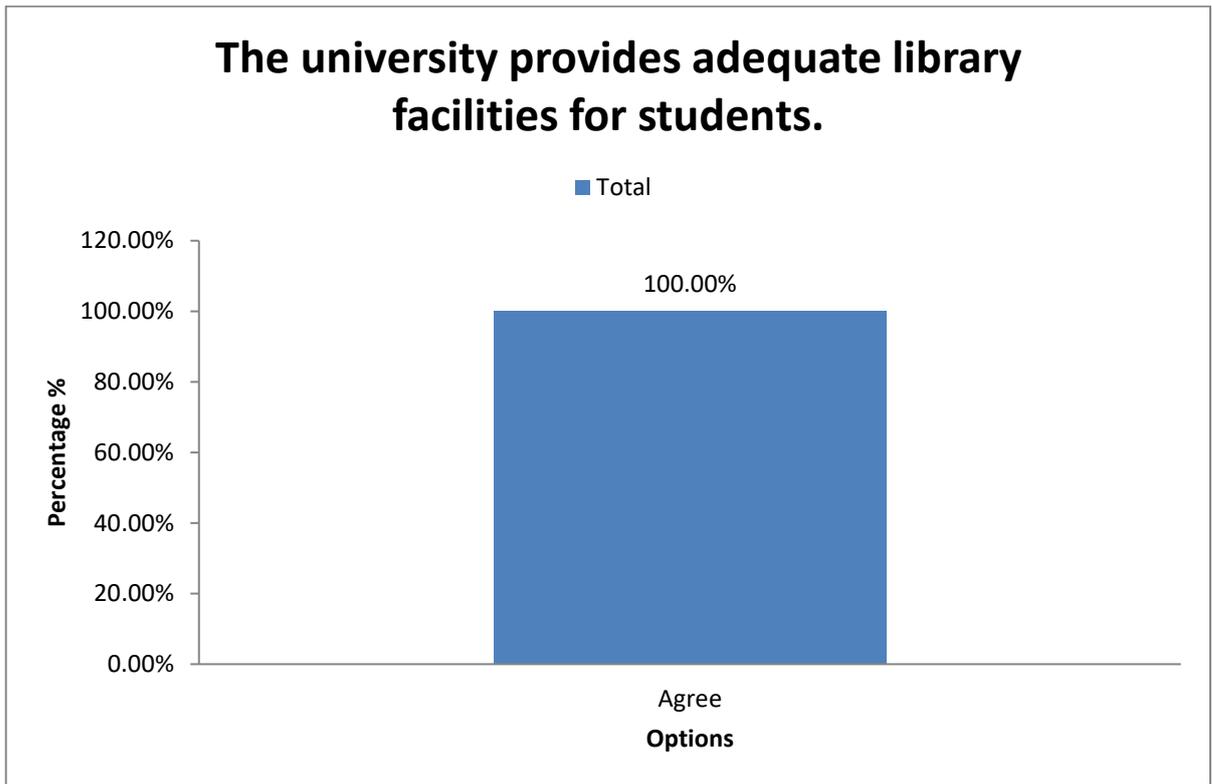


Figure 4.23: Percentage of your university provides adequate library facilities for students?

Table 4.24: Percentage of your university library enriched with updated pharmacy study materials.

Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)
47.84%	52.16%	0%	0%

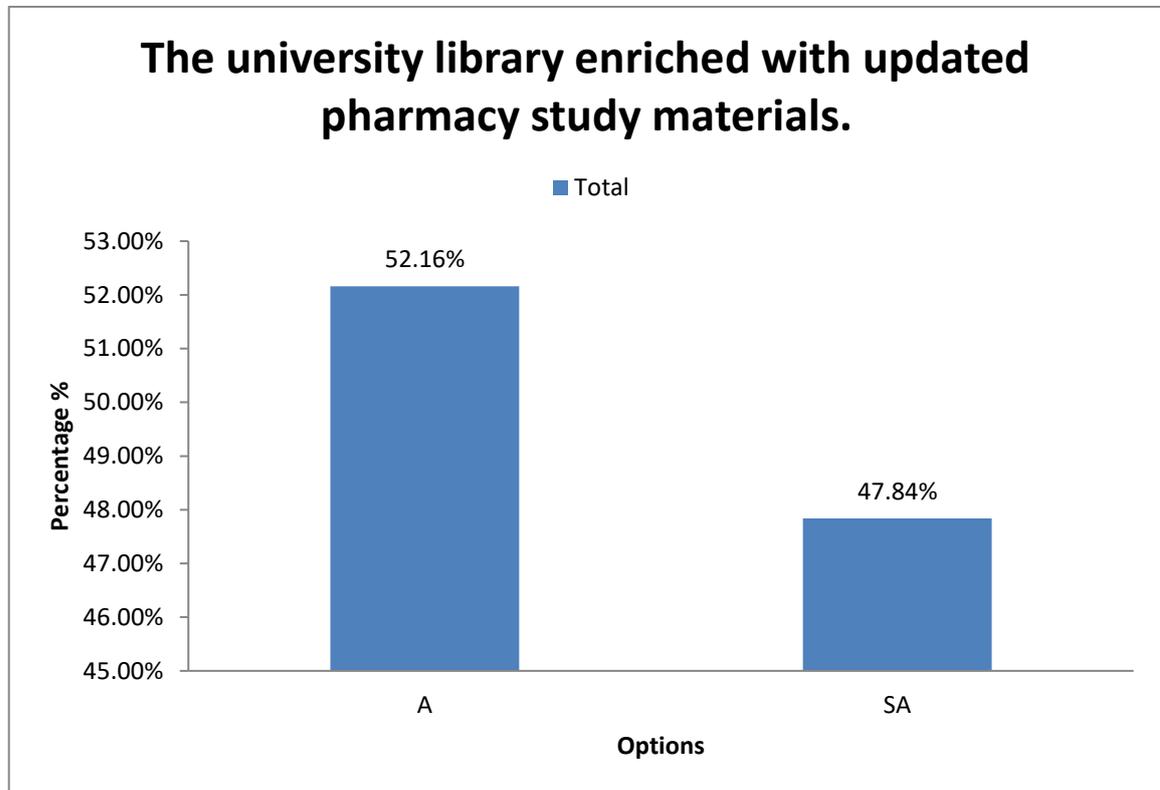


Figure 4.24: Percentage of your university library enriched with updated pharmacy study materials.

Table 4.25: Percentage of your university takes special care for provisional students.

Strongly Agree (SA)	Agree	Agree (A)	Neutral (N)	Disagree (D)
0%		15.95%	80.73%	3.32%

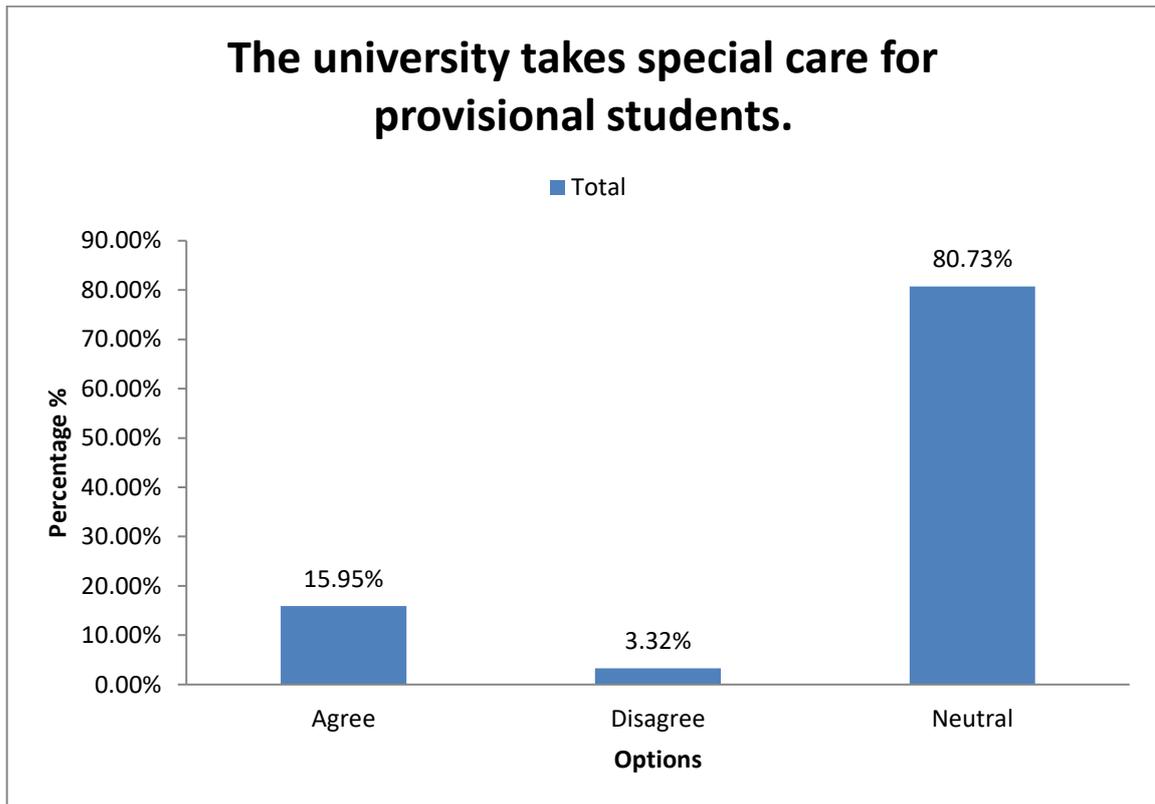


Figure 4.25: Percentage of your university takes special care for provisional students?

Table 4.26: Percentage of does your department provide enough computer facilities.

Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)
0%	100%	0%	0%

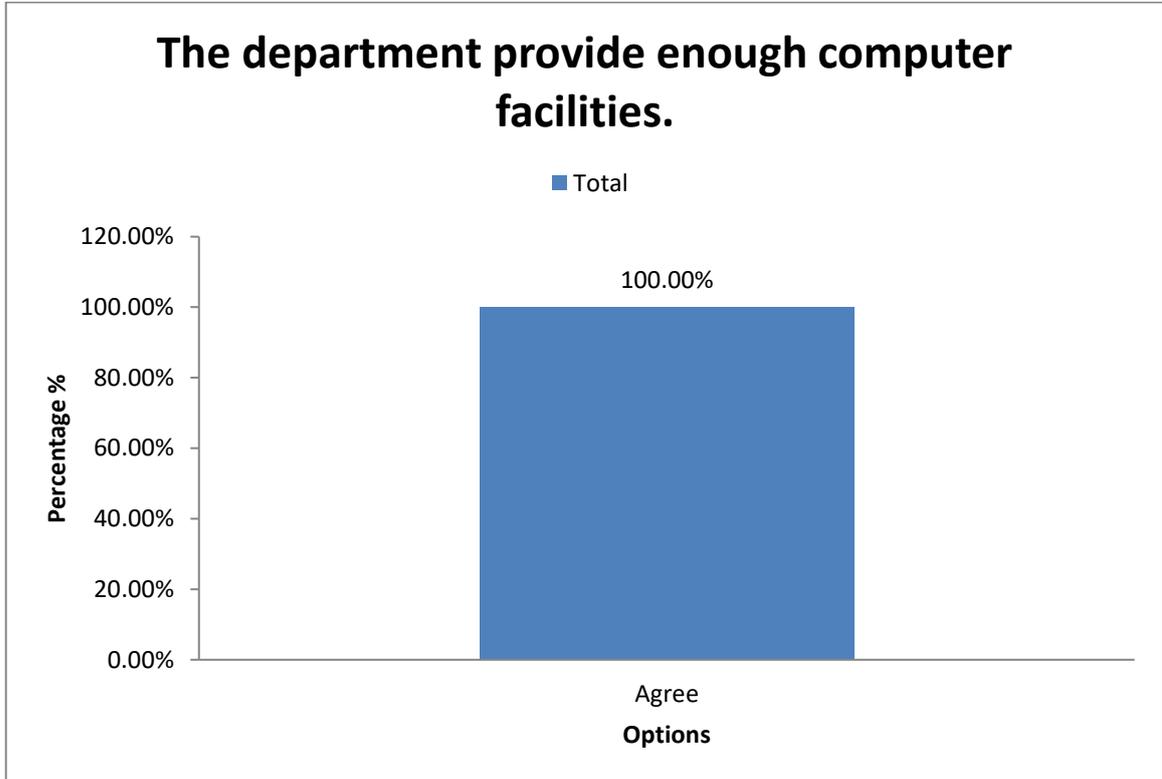


Figure 4.26: Percentage of does your department provide enough computer facilities.

Table 4.27: Percentage of your department provide enough facilities for research work.

Strongly (SA)	Agree	Agree (A)	Neutral (N)	Disagree (D)
0%		20.93%	65.12%	13.95%

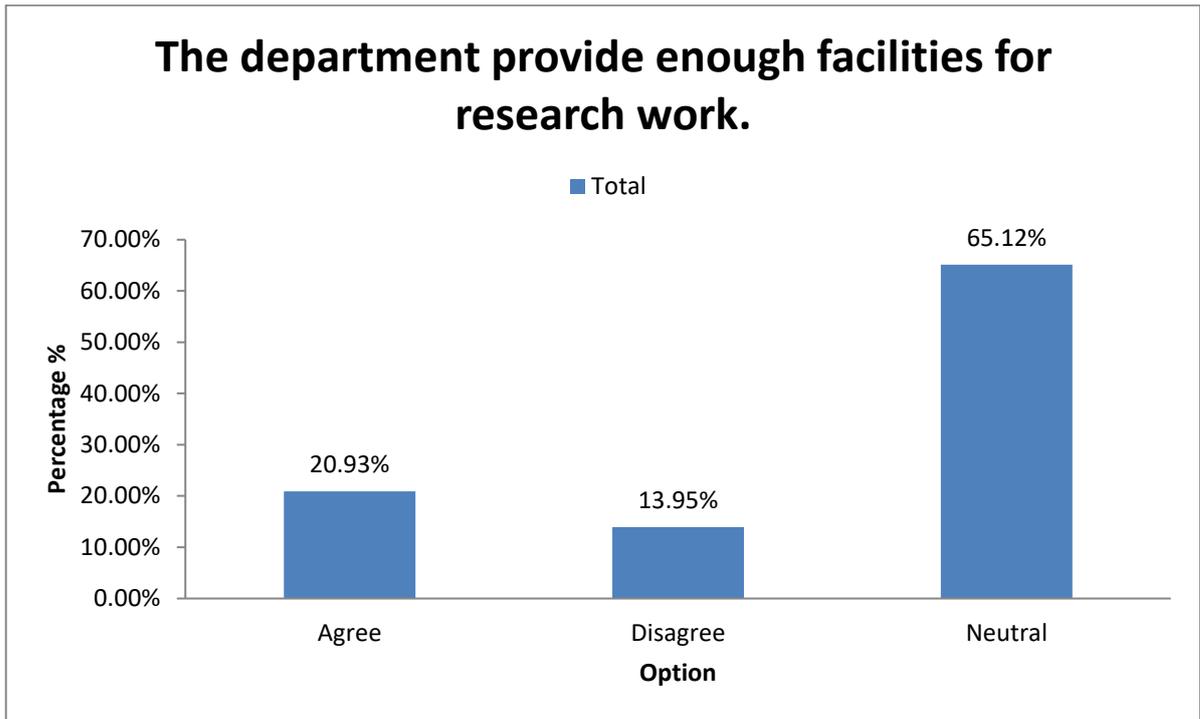


Figure 4.27: Percentage of your department provide enough facilities for research work.

Table 4.28: Percentage of your university cafeteria is affordable for faculty and students.

Yes(Y)	No(N)
100%	0%

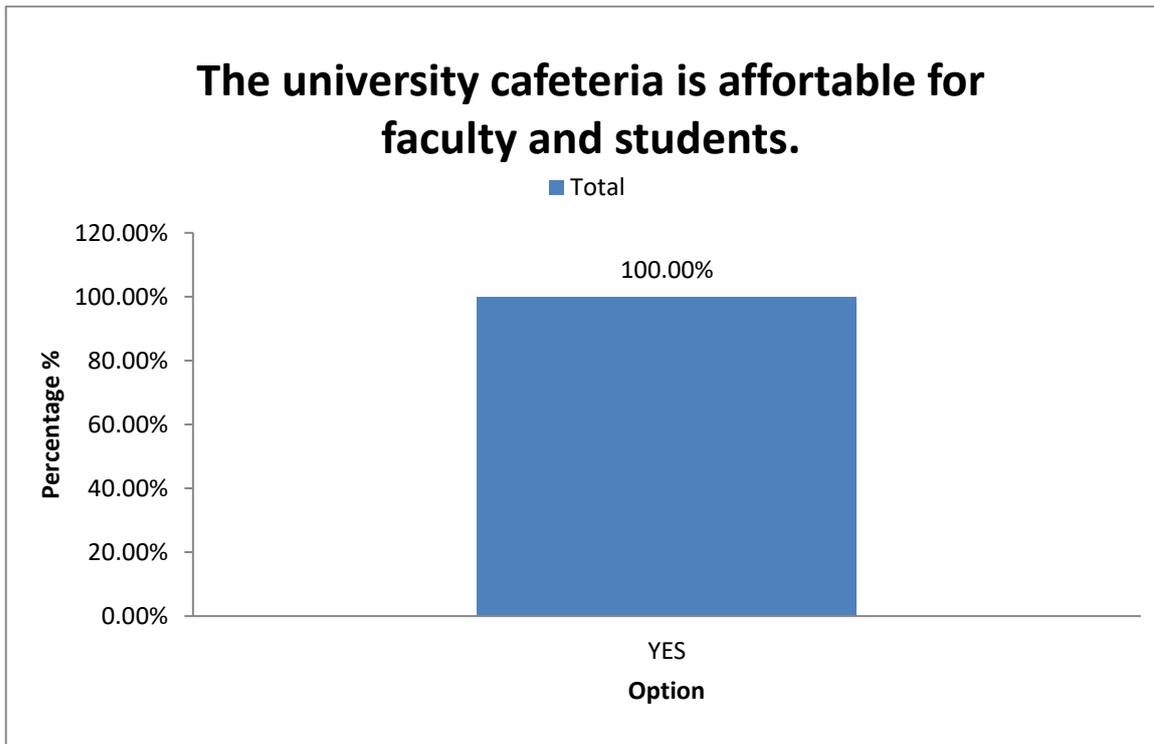


Figure 4.28: Percentage of your university cafeteria is affordable for faculty and students.

Table 4.29: Percentage of does your department has their own animal house.

Yes(Y)	No(N)
0%	100%

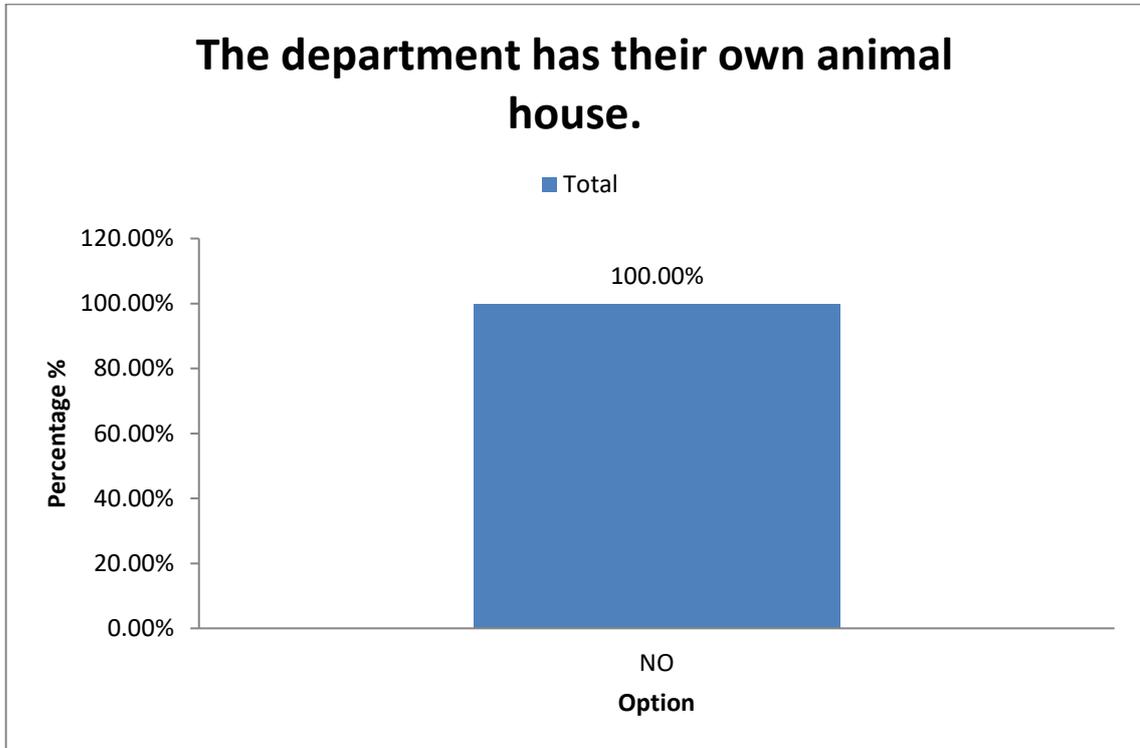


Figure 4.29: Percentage of does your department has their own animal house.

Table 4.30: Percentage of your university provide transportation for students and faculty.

Yes(Y)	No(N)
0%	100%

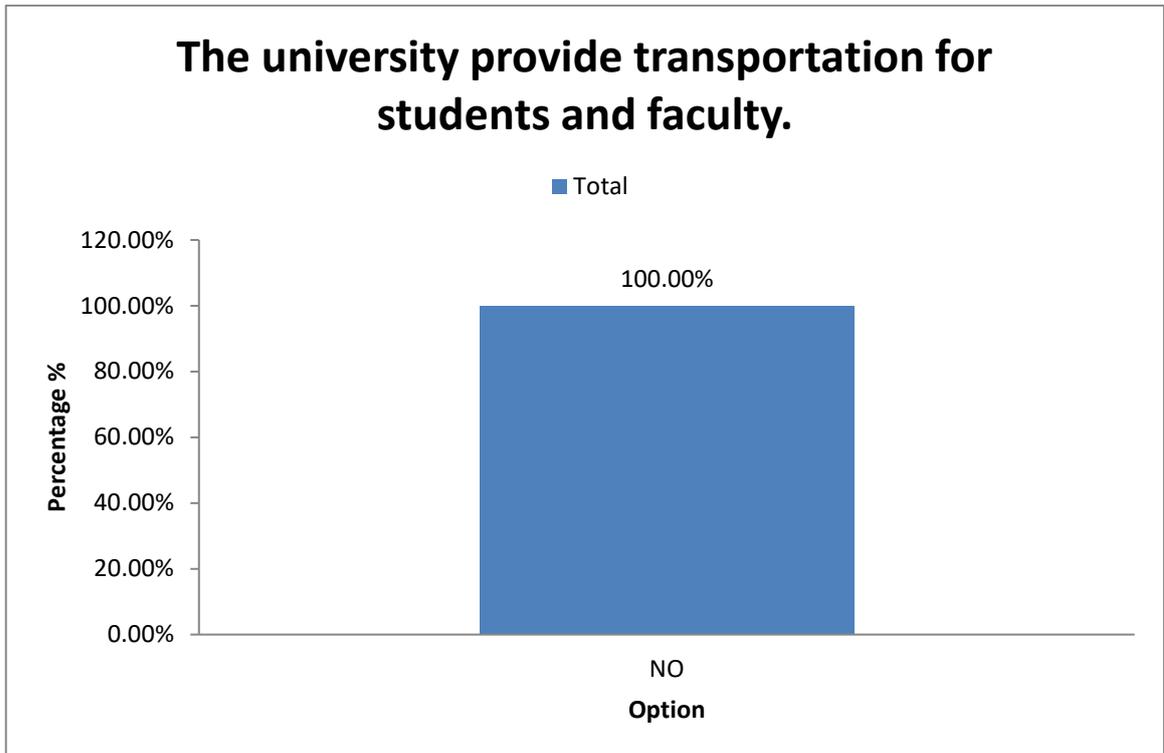


Figure 4.30: Percentage of your university provide transportation for students and faculty.

**4.3A: ACADEMIC RULES FOR STUDENTS**

Table 4.31: Percentage of your university provide adequate number of scholarships.

Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)
0%	53.49%	46.51%	0%

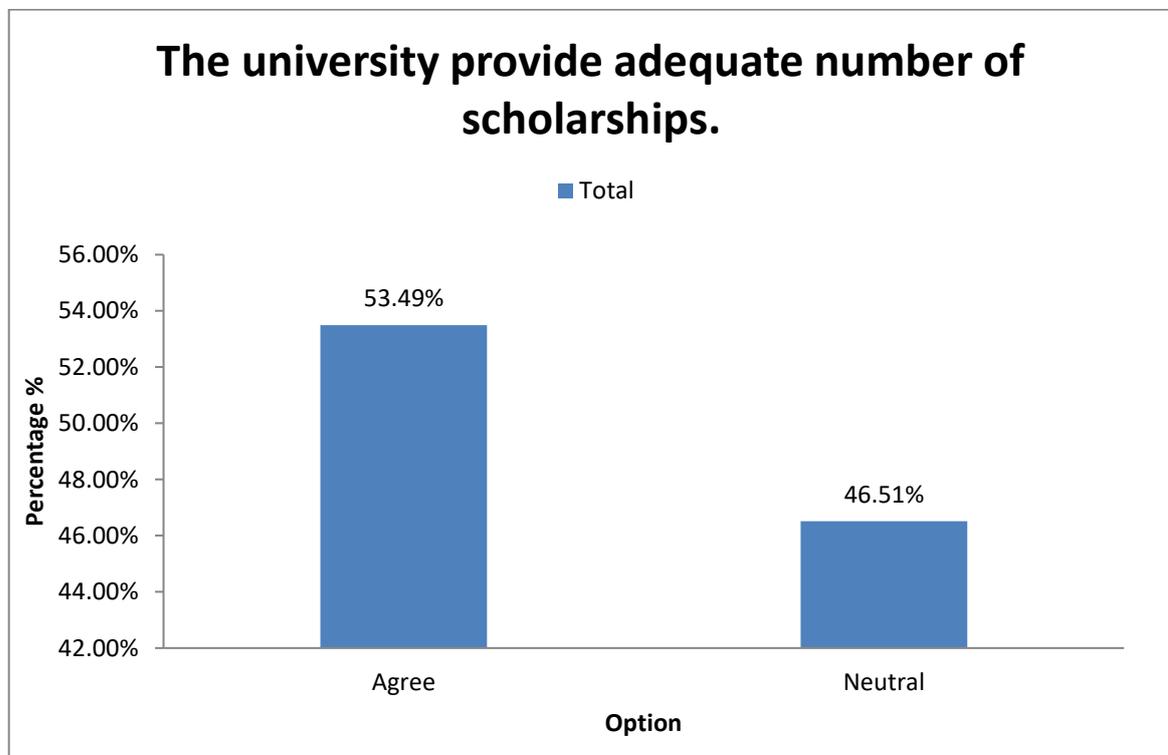


Figure 4.31: Percentage of your university provide adequate number of scholarships.

Table 4.32: Percentage of your university truly inspire excellence.

Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)
0%	57.14%	42.86%	0%

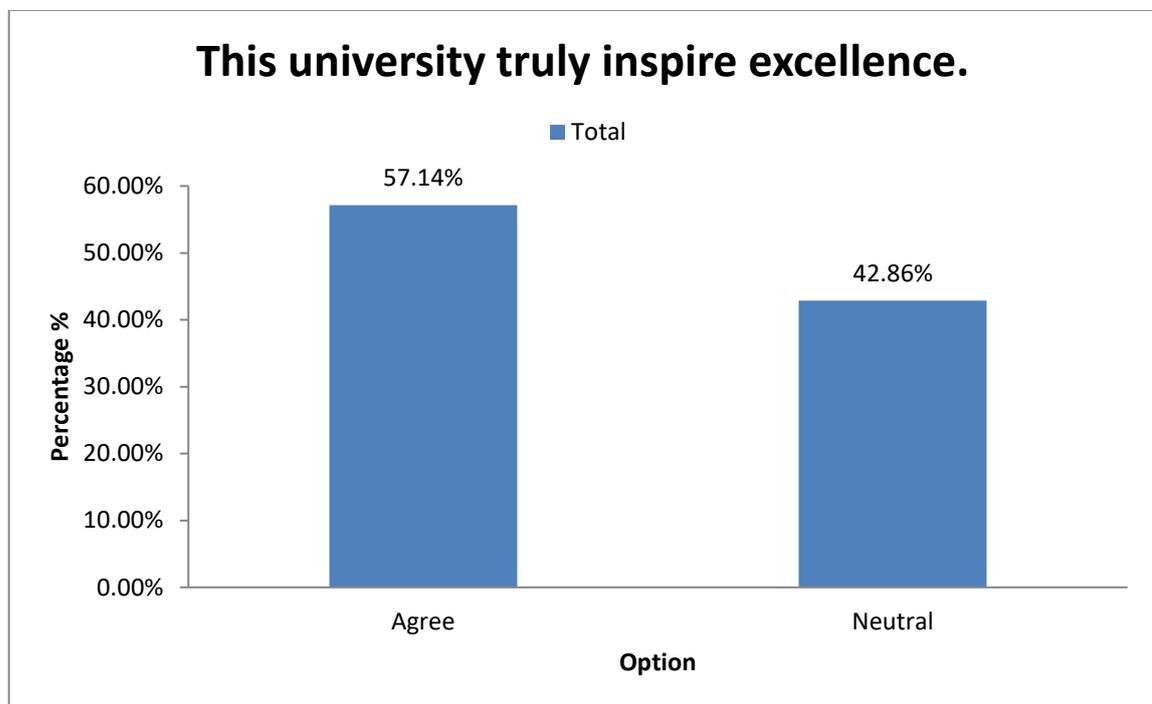


Figure 4.32: Percentage of your university truly inspire excellence.

Table 4.33: Percentage of academic calendar is strictly followed by your department.

Strongly (SA)	Agree	Agree (A)	Neutral (N)	Disagree (D)
0%		43.19%	56.81%	0%

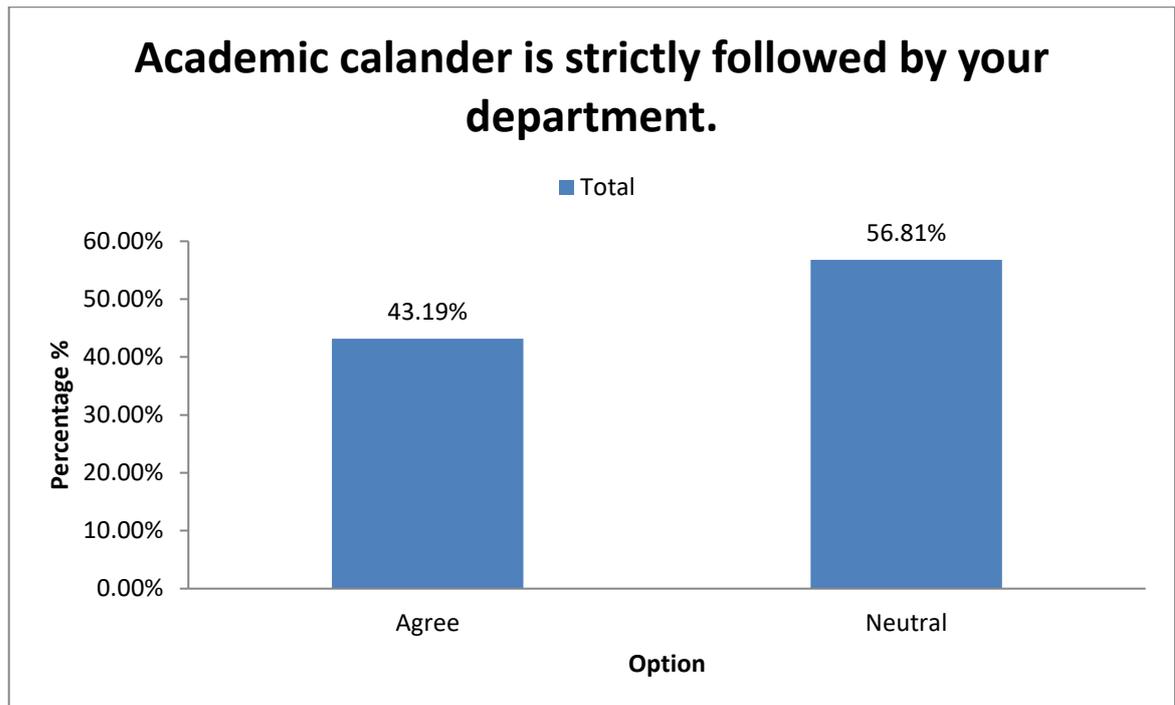


Figure 4.33: Percentage of academic calendar is strictly followed by your department.

Table 4.34: Percentage of does student wants more specified syllabus for each subject.

Yes(Y)	No(N)
100%	0%

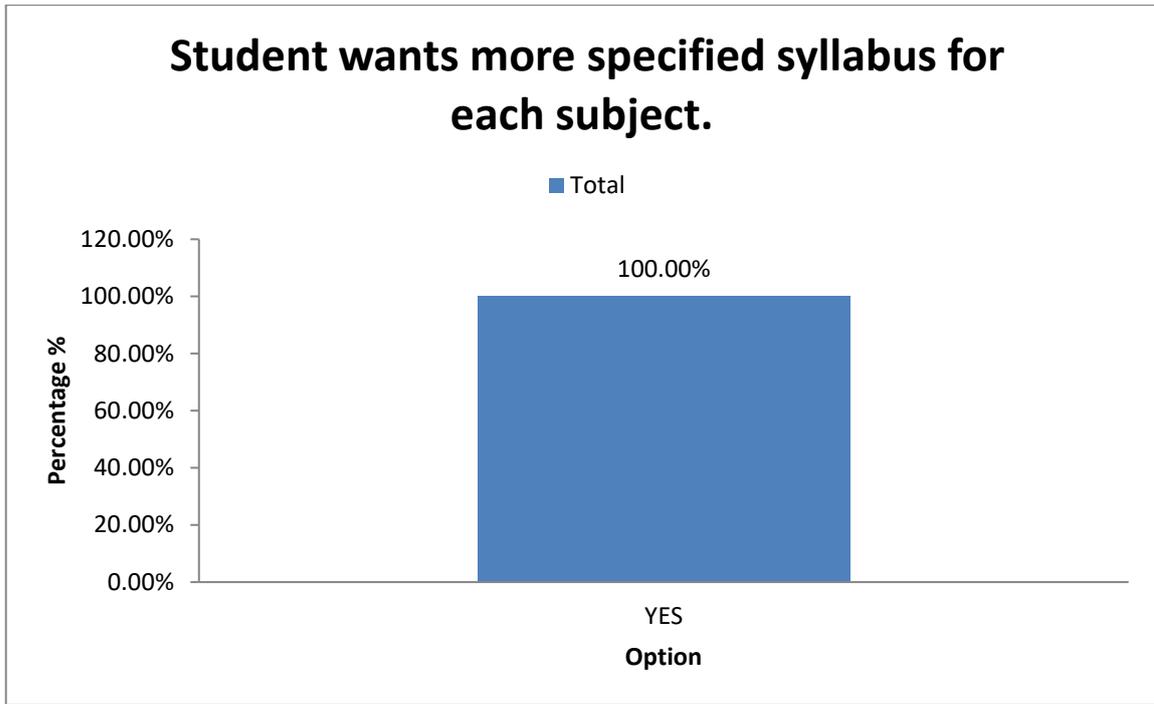


Figure 4.34: Percentage of does student wants more specified syllabus for each subject.

Table 4.35: Percentage of does student get enough opportunity for presenting themselves in front of corporate officers.

Yes(Y)	No(N)
100%	0%

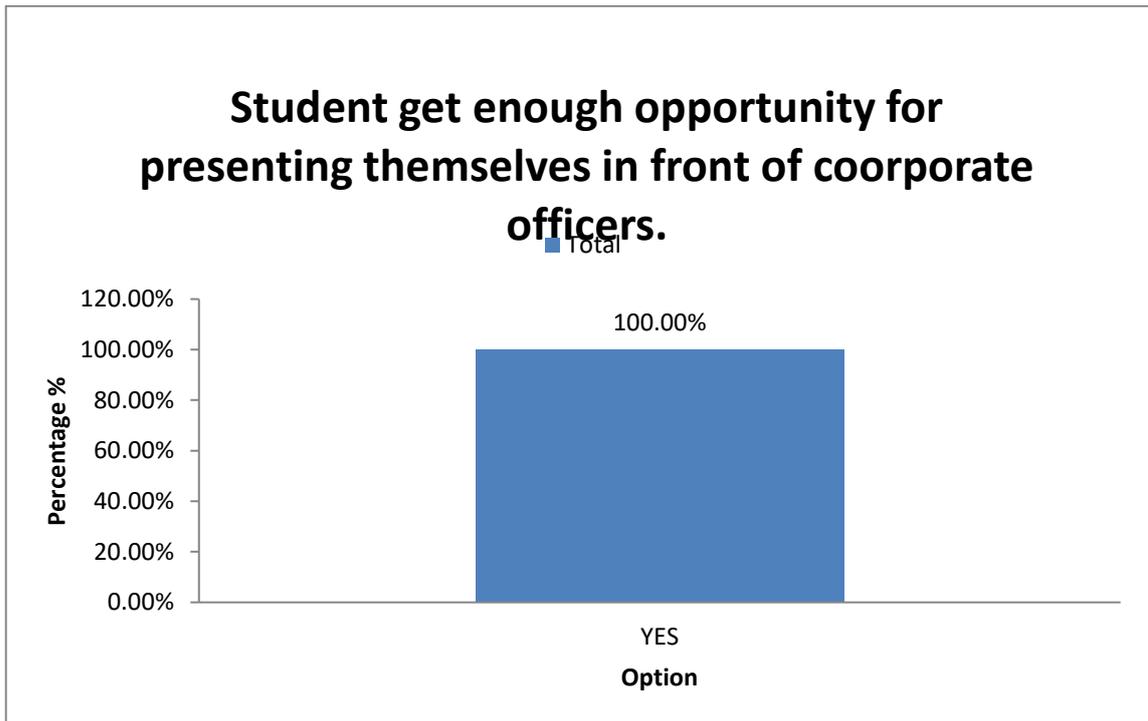


Figure 4.35: Percentage of does student get enough opportunity for presenting themselves in front of corporate officers.

Table 4.36: Percentage of can students easily communicate with administration.

Yes(Y)	No(N)
100%	0%

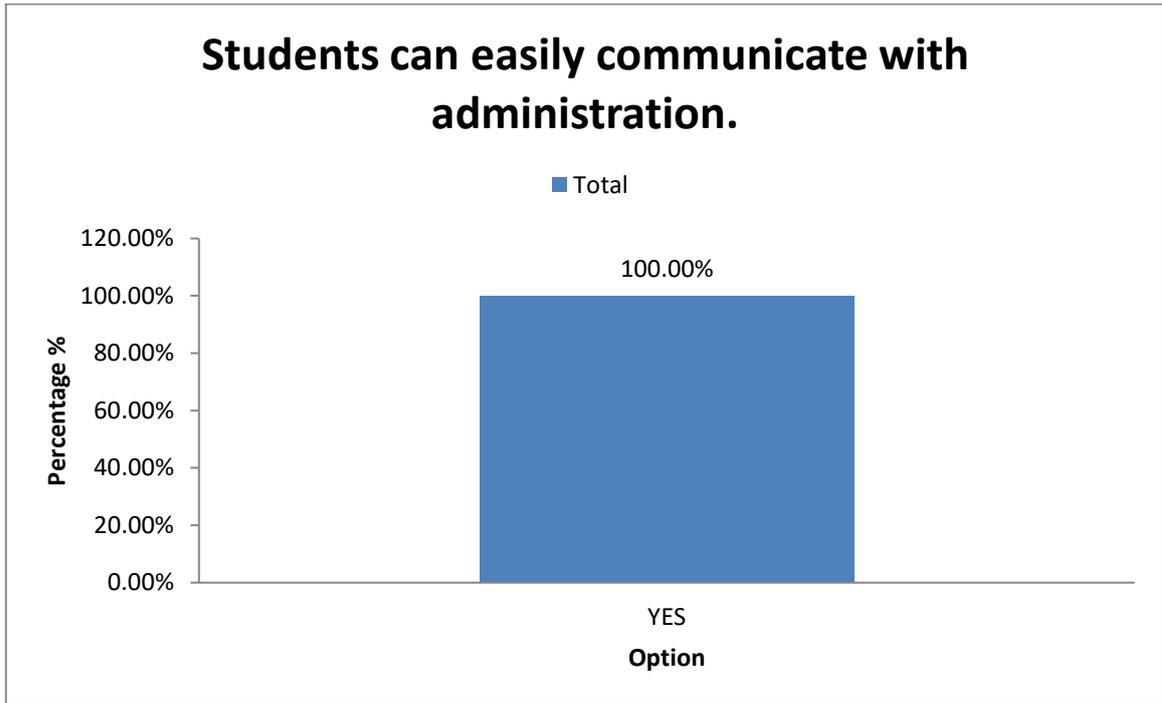


Figure 4.36: Percentage of can students easily communicate with administration.

Table 4.37: Percentage of does student face any administrative biasedness.

Yes(Y)	No(N)
100%	0%

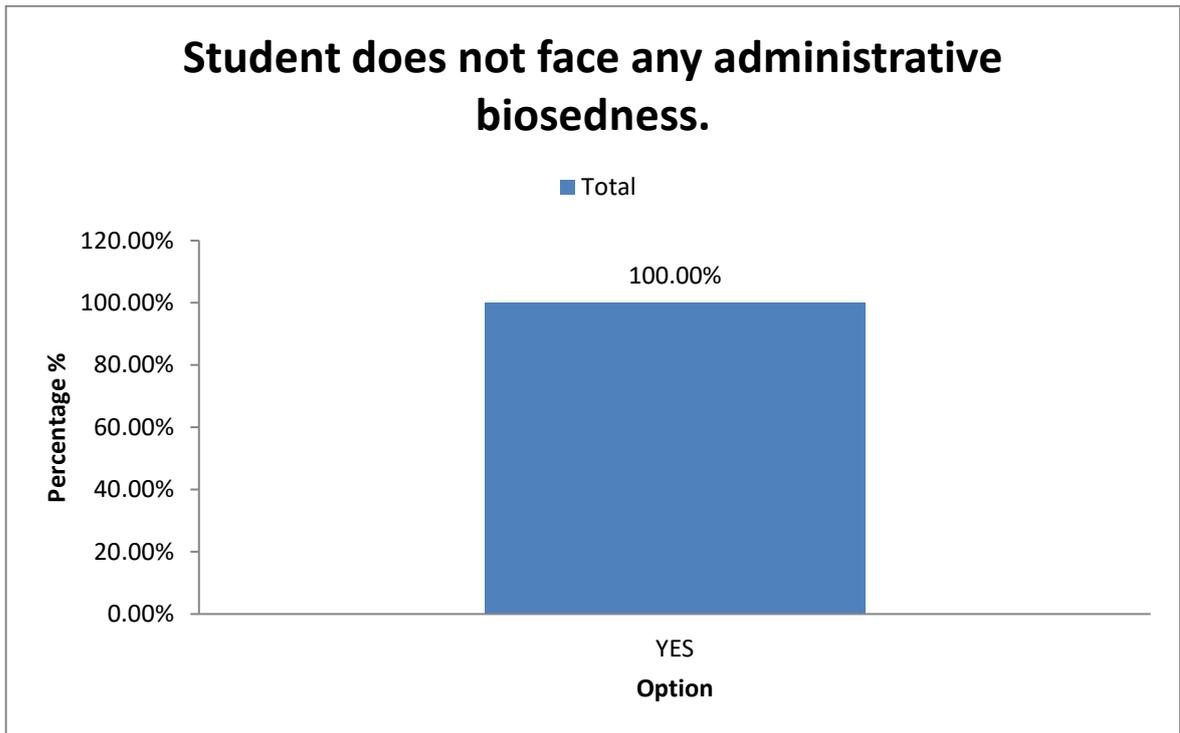


Figure 4.37: Percentage of does student face any administrative biasedness.

Table 4.38: Percentage of does your department give permission to celebrate festivals.

Yes(Y)	No(N)
100%	0%

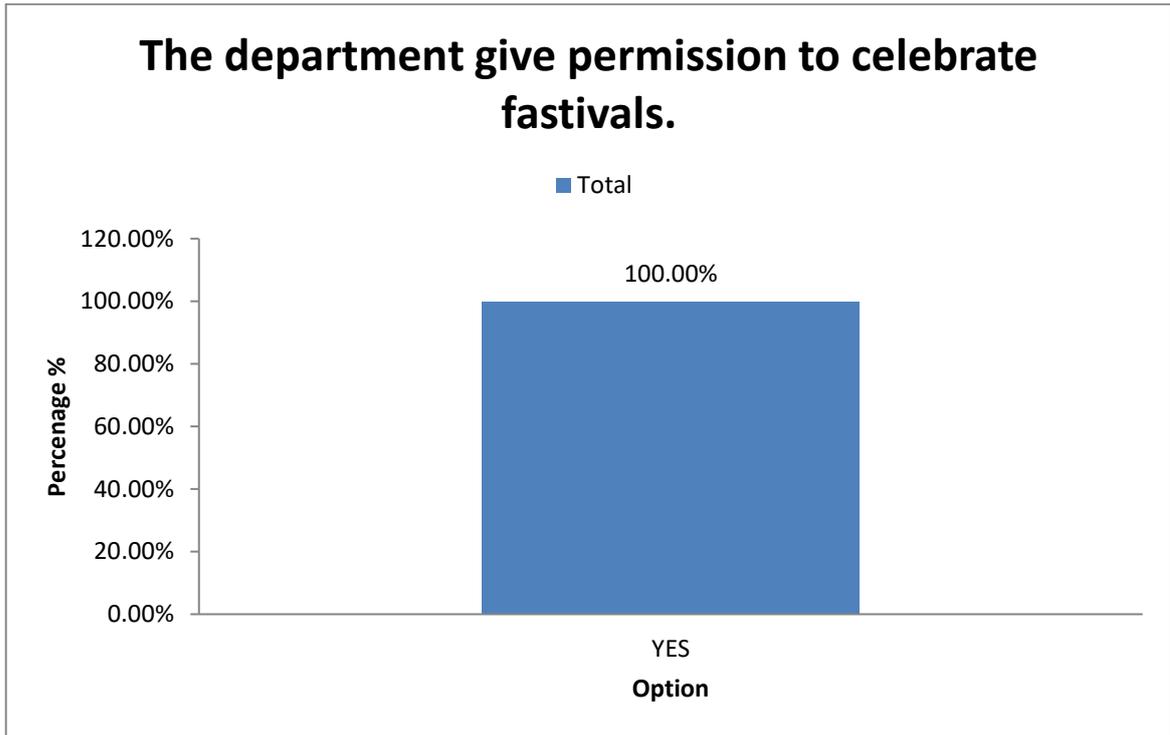


Figure 4.38: Percentage of does your department give permission to celebrate festivals.

Table 4.39: Percentage of does your department properly evaluate every student.

Yes(Y)	No(N)
100%	0%

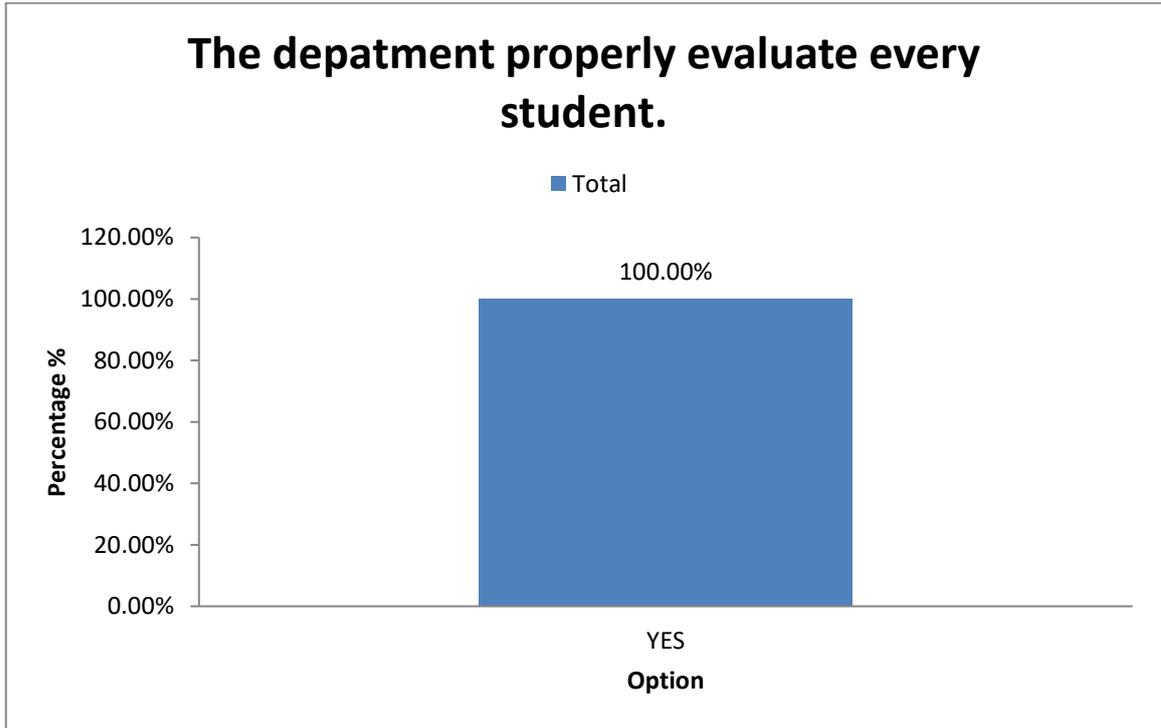


Figure 4.39: Percentage of does your department properly evaluate every student.

**4.4A: MOTIVATION**

Table 4.40: Percentage of does your department have vast sector of development including research work, job, publication etc.

Yes(Y)	No(N)
100%	0%

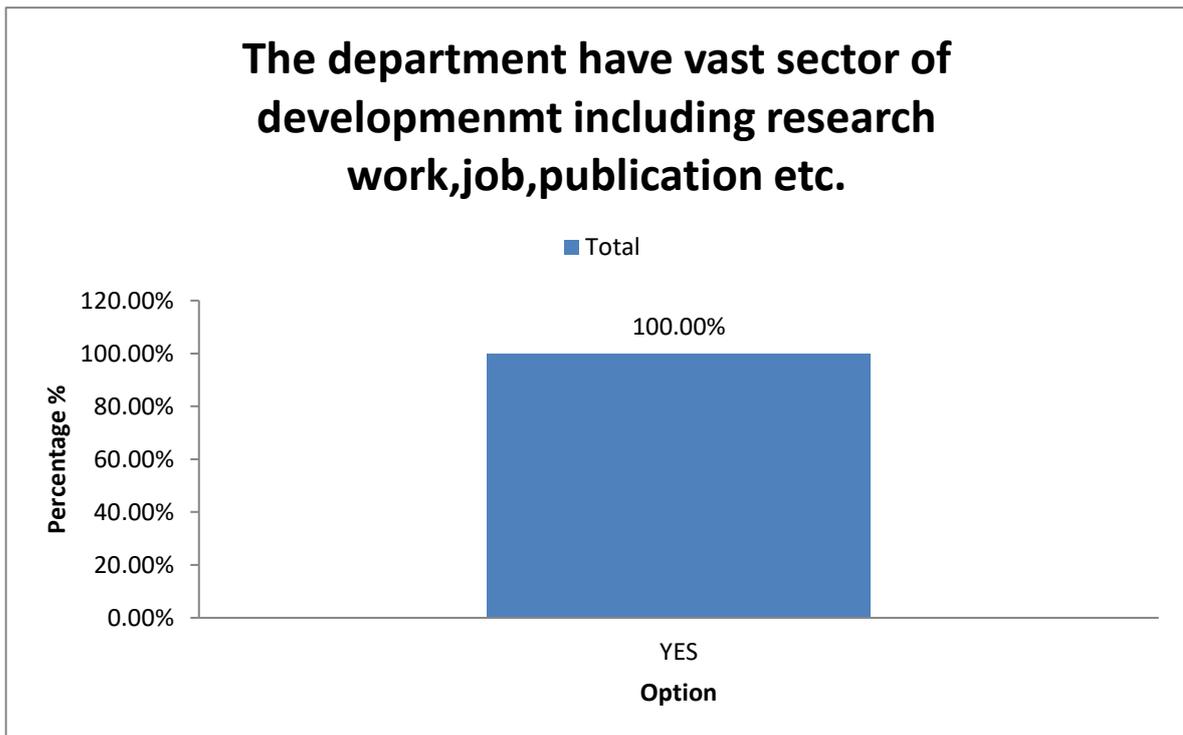


Figure 4.40: Percentage of does your department have vast sector of development including research work, job, publication etc.

Table 4.41: Percentage of does your department provide enough opportunity for charity or social work.

Yes(Y)	No(N)
100%	0%

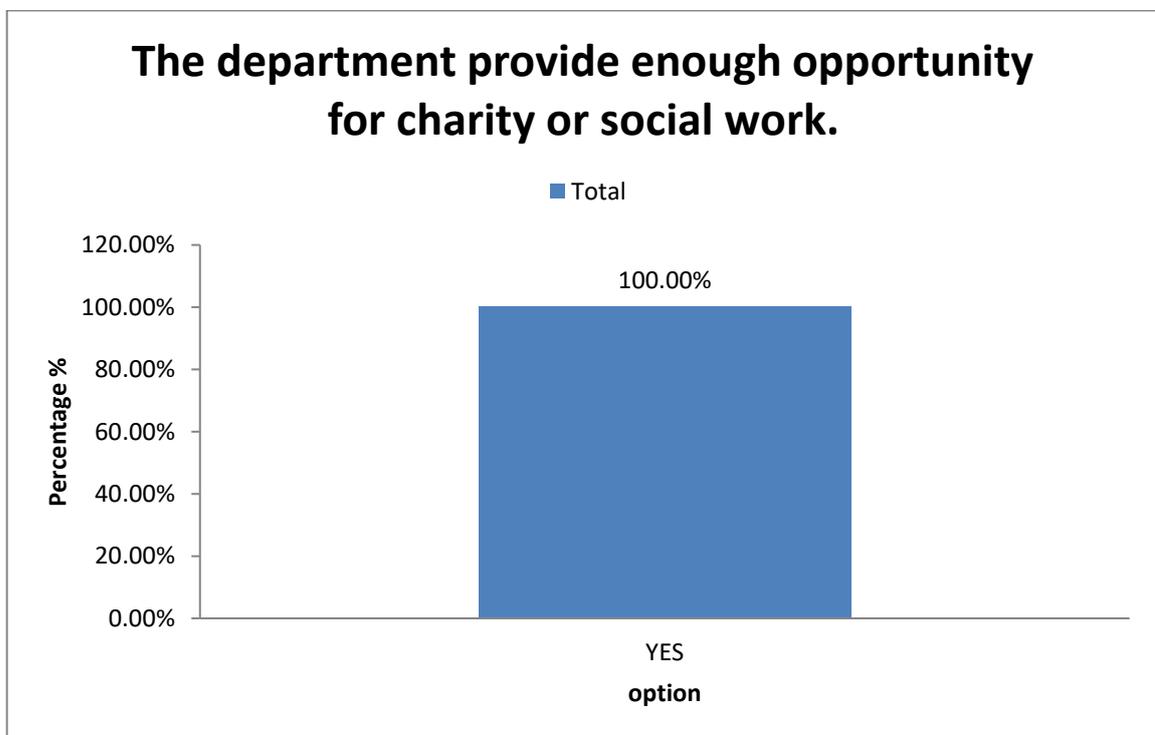


Figure 4.41: Percentage of does your department provide enough opportunity for charity or social work.

Table 4.42: Percentage of does your department provide excellent and extraordinary mentor to inspire students.

Yes(Y)	No(N)
100%	0%

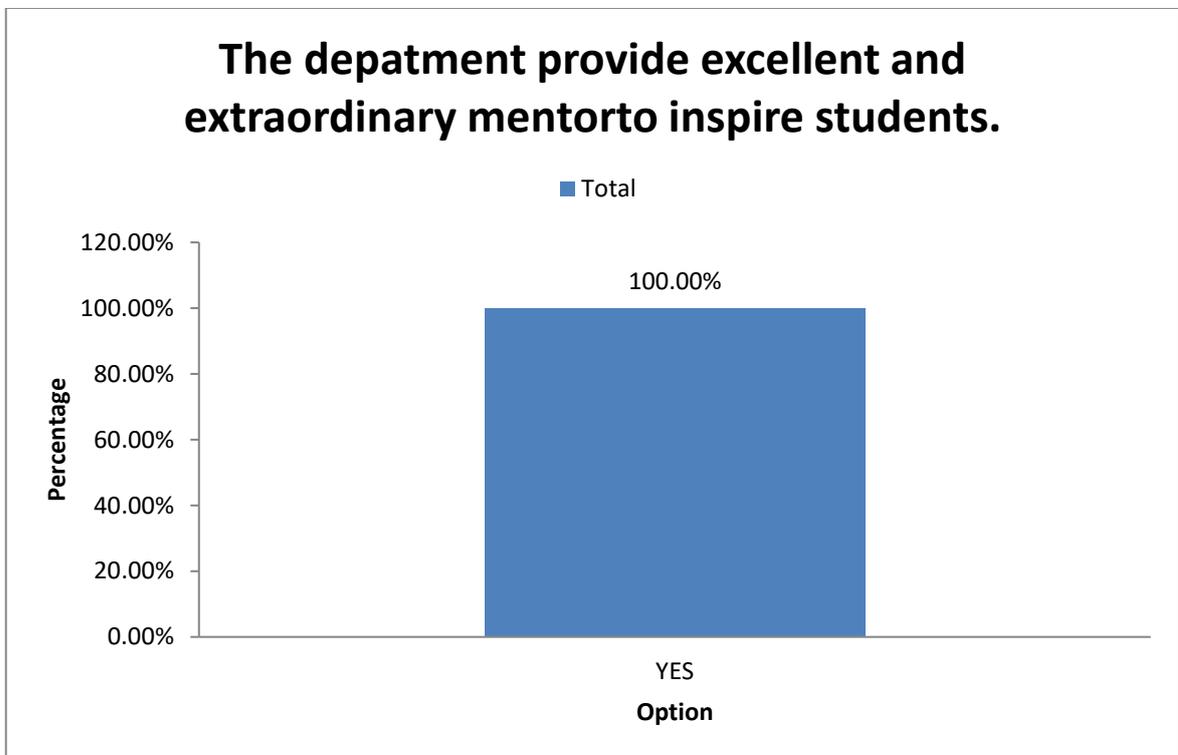


Figure 4.42: Percentage of does your department provide excellent and extraordinary mentor to inspire students.

Table 4.43: Percentage of does your department clear about its goal, they never let anyone to be dropout.

Yes(Y)	No(N)
100%	0%

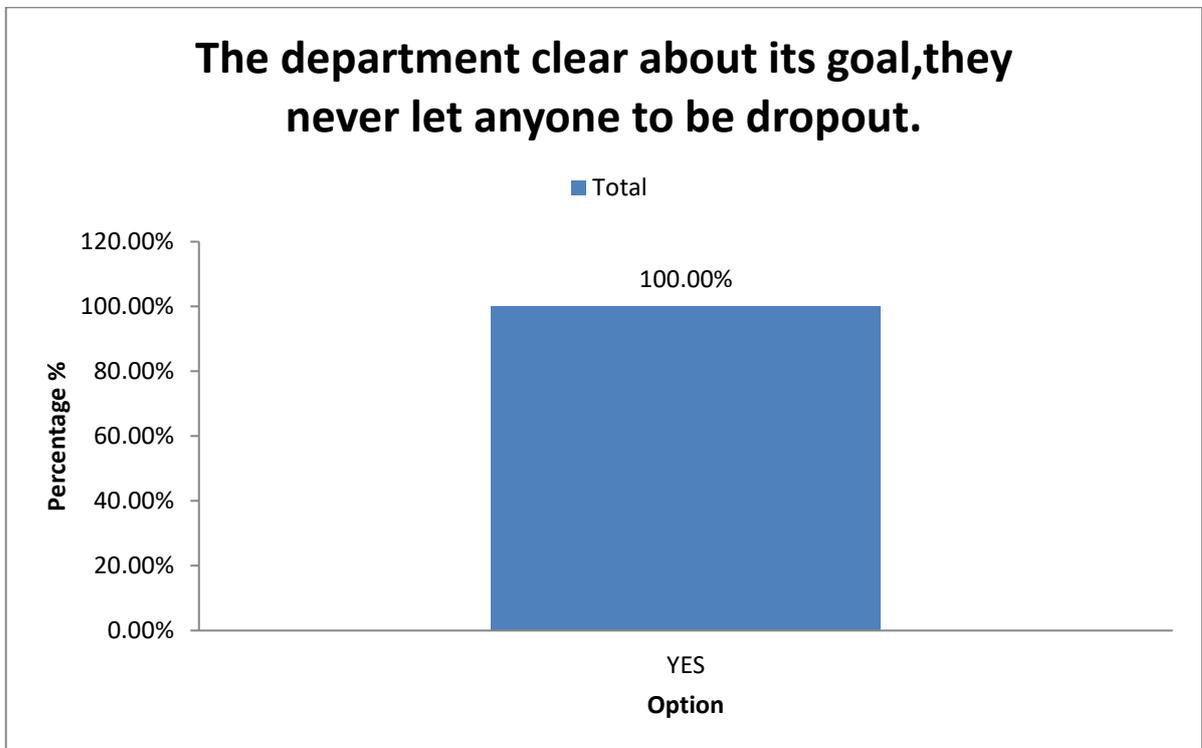


Figure 4.43: Percentage of does your department clear about its goal, they never let anyone to be dropout.

## **Chapter 5**

### **Discussion**

## 5. Discussion

This survey is based on the developing the learning process of the pharmacy department students. After filling up the questions the outcome was like most of the questions were getting feedback, few get neutral and fewer questions to get negative feedback. Our target people were 300. This survey was done from 3 different private University. 200 students were from University one (1), 50 students from University two (2) and 50 from University (3). Though the questions got a different opinion so I am going to describing them separately. My question was divided into five different divisions. Each division contains several questions. These questions were going to be described. 1st question was "E-learning is encouraged by faculty" in this question 53.67% students strongly agreed and 42.67% student only agreed this question follow the concrete experience point of Kolb Learning Style and the result is positive. Next question was "Faculty provides pre-lecture notes among the students" in this 47% of students agreed and 37% are neutral this part of questioner is based on Kolb Learning styles the concrete experience. So the result is positive. Next, "Faculty always prompts for helping the student." in this 44.67% students agreed and 44% are neutral. So the result was positive. Then I asked "Class participation is gradually encouraged by faculty." in this 55.33% students agreed and 33.33% were neutral. So the result was positive. Next was "Informative Courses (biopharmaceutical) are more difficult than textbook base (pathology) courses." in this 44% of students agreed and 56% are neutral. So the result was positive. Then next query "Students are more comfortable with e-learning than the traditional method." in this question, 92% of students said yes. So the result was positive. Next query was about the group assignment "Group assignment helps to improve critical analysis." in this question 100% students said yes. So definitely, the result was positive. I asked about "Students learn about research work from B.pharm project work." in this question, 82% of students said yes. So the result was positive. From the beginning, found from the entire question positive. My next question was "Student perceive different way of learning to remove monotony of study." in this question 100% students said yes. So the result was positive. Then go for "Presentation improves communication and professional skills of the students." in this, question 67.67% students, said yes. So the result was positive. Then asked, "Do the pharmaceutical laboratory courses create more interest to learn

pharmacy” And 100% student said yes. So there was no doubt that the result is positive. Then go for my next query and it was does each of the students get equal chance to perform in the laboratory courses. Moreover, found that 97.33% votes were no so the result was Negative. This was the first query found negative. Well, then go for my next query, it was “Are laboratory courses essential for learning theoretical courses more effectively” and 100% student votes yes. So this time the result was positive. Then asked, “Does the pharmaceutical courses truly reflect theoretical courses” and the result was 100% positive. My next question was “Do you follow PubMed, lab roots, research gate for knowing about ongoing researches” and 76.33% of students said yes. So the result was positive. Okay let us go for my next question and it was the “same faculty for laboratory theoretical courses are more effective than different” and found that 100% student said yes. So this time the result was also positive. My next query was “Department follow National grading system recommended by UGC” and 100% student votes yes. So the result was positive. My next question was “Theory-based courses are more difficult than application based courses” and 82% students said yes. So we can say that the result was positive. My next query was your department had their own seminar room for the students. Moreover, 100% students agreed with it. So the result was positive. Then go for my next query and it was your department has their own well-developed campus This time 50.17% students agreed. However, this time agreed and disagreed student’s quantity was almost the same but the numbers of agreed students were a little bit more than disagreed. So we could say the result was positive. My next question was do your department had lift facility for both faculty and students. This time 100% students vote yes. So the result was positive. Let us go for my next query and it was your department have separate laboratory facilities for different courses. This time 100% votes agree, so we can easily say that the result was positive. My next question was” Your University provides adequate library facilities for students” and 100% of students agreed with it. So the result was positive. My next question was your university library enriched with updated pharmacy study materials. In this 52.16%, students agreed and 47.84% students strongly agreed and the result was positive. Then asked Your University takes special care for provisional students. In addition, this time found 15.95% students were agree and 3.32% disagree and rest are neutral. So this was also positive. My next question was does your department provide enough computer facilities. In addition, 100% of students were Agree. So the result was positive. My next query was does your department provide enough facilities for research work and I found

that 20.93% agree and 13.95% disagree and rest are neutral. So the result was positive. My next question was does your university cafeteria is affordable for faculty and students and 100% of students said yes. Therefore, the result was positive. Let us go for the next one and it was does your department has their own animal house and this time 100% students vote no. So the result definitely negative. Next question was does your university provide transportation for students and faculty. This time also 100% students vote no. Therefore, the result was Negative. Let us talk about the next question and it was your university provide an adequate number of scholarships. In addition, 53.49% student was agreed and rest are neutral. Therefore, the result was positive. My next question was your University truly inspire excellence. In addition, 17.14% students were agreed and rest were neutral. Therefore, the result was positive. Then asked academic calendar was strictly followed by your department and 43.19% students were agreed and rest were neutral. There were no negative votes here so the result was definitely positive. My next question was does student wants more specified syllabus for each subject and this time 100% of students were agreed. Though the result was positive. My next question was does student get enough opportunity for presenting themselves in front of corporate officers and 100% votes was yes. Therefore, the result was positive. Next question was Can students easily communicate with administration. In addition, the result was 100% positive. Next question was does student face any administrative biasedness and 100% students vote yes. So the result was positive. My next question was does your department give permission to celebrate festivals. This time the result was also 100% positive. My next question was does your department properly evaluate every student. Moreover, 100% students vote yes. So the result was positive. My next question was does your department had the vast sector of development including research work, job, publication etc. In addition, the result was 100% positive. My next question was does your department provide enough opportunity for charity or social work. This time the result was also 100% positive because all students voted yes.

My next question was does your department provide the excellent and extraordinary mentor to inspire students. In addition, 100% of students voted yes. Therefore, the result was positive. My last and final question was Does your department clears about its goal; they never let anyone be a dropout. Moreover, 100% students voted Yes. So the result was positive. Therefore, I found that most of the question got a positive result. Only 3 question got a negative result. So overall survey output was Positive.

## **Chapter 6**

### **Conclusion**

## **6. Conclusion**

'Prevention is better than cure' it is a phrase but in my study it is the core point. Before losing students attention, to remove monotony from study and make the study effective we should develop the study style. Pharmacy is a medicine and pharmacology based study. During this study if single one topic would not understand by students it will hamper them a lot as all the subjects are interrelated with each other. Bookish knowledge is only for grade, it will not knowledge for them. In this study implementation, meaning participation of the student should ensure because if a student did not even participate how could he or she can learn. Again, this study helps students to share their first opinion of a study that after learning from his or her mentor at first attempt what did he understand or is it right or wrong, where is the lacings or where need to nourish etc. a faculty can work on it. Now this is correction time, after listening student faculty founded out the root of the problem so now he or she can help properly the student to understand it more accurately. Finally, after ending one topic all the student and faculty will preparing themselves for next class. Therefore, this style is in overall a best study according to the study in case of e learning. Moreover, this study is effective to remove monotonous method and this study will help to find where need to change the method, key points of changing. My goal is to show the way this small step will help our faculty and us student to start thinking about development.

## **Chapter 7**

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