Editorial Team

Foreword

The trend in job markets shows that getting good grades and earning a diploma may not necessarily land graduates in decent jobs. Top employers are no longer satisfied in recruiting mono-focused employees. They look for well-rounded ones who are not only technically capable but also possess the right mix of skills enabling them to handle multi –tasking assignments. Hence while studying, students as future job seekers need to be groomed and developed to meet the expectations of their future employers. At the institution level, various programmes are organized to let students venture and explore new and challenging experiences, tapping on their knowledge, skills and talents. Particular attention is given to develop students' soft skills which distinguish them among other job seekers. This includes training them in organizing, problem solving, decision making and also critical thinking skills.

The Young Researchers' Digest is one of the efforts made to develop students as young researchers who can be critical of things around them and be creative in providing practical solutions to overcome problems they identified. The tag line of the Digest reflects the commitment of the institution in nurturing thinking graduates, capable and confident of expressing their thoughts and standing by their ideas.

Congratulations to the young researchers, the Editorial Board and the Advisor who have made the publication of the maiden issue of the Young Researchers' Digest a reality!

Hj. Zulkifli Bin Ariffin

Director

Foreword

The Young Researchers' Digest compiles and presents project papers written by semester five students of the Seberang Perai Polytechnic (PSP) undertaking the AE 501 Communicative English 3. The course partially requires students to present findings of a mini project using graphs and charts.

To encourage students to relate classroom teaching and learning to the real world, students were empowered to carry out a survey as their mini projects. In their endeavor the students got a feel of carrying out a research and experience the challenges of being a researcher themselves. The experience immersed them in an inquiry into real-world issues where they developed their skills in questioning, thinking critically, solving problems and creating solutions. Most importantly, these students learned to communicate and to collaborate within and beyond the classrooms.

The compilation of the project papers in the Young Researchers' Digest is an attempt to acknowledge the work and experience of these students besides sharing their findings and ideas with other people. In the long run the Digest aims to encourage students to be critical and creative, nurturing them as thinking graduates.

Khairun Nisah Binti Selamat

Project Advisor & Facilitator

Letter from the Editor

The Young Researchers' Digest is a compilation of survey reports written by semester five students based on the mini projects undertaken in partial fulfillment of the AE501 Communicative English 3 course. The digest aims to serve as a guideline for students in conducting surveys and also provide some ideas on report writing for novices in research.

A research empowers students to be critical of the issues around them. In finding the root cause of the issues and providing solutions to them, students learn to express their views and at the same time challenge themselves to think of possible options to make improvements.

It has been an honour for me to lead the Editorial Team in the publication of this maiden issue of the Young Researchers' Digest. Throughout this project, I have gained some experience in editing the content and also improving my writing skills. I would like to express my gratitude to Madam Khairun Nisah and also my partner in crime, Muhammad Fitri for their endless support and patience. Without them, this project would never be real.

I hoped that the next Editorial Team would be motivated to continue my legacy in sustaining the publication of the Young Researchers' Digest. All the best!

Ahmad Faiz Ahmad NurulAzam

Chief Editor

Contents

Students' Satisfaction on Canteen Services in PSP

1.0 Introduction

A survey was carried out to study students' satisfaction on canteen services in PSP. The objectives of the survey were to find out the main problems that students faced when patronizing the canteen and to give recommendations on how the canteen services can be improved. 80 copies of a questionnaire which contained 12 questions were distributed.

The survey was carried out on 80 respondents from four departments which were Commerce Department, Information, Communication and Technology Department, Mechanical Engineering Department, and Electrical Engineering Department. The questionnaires were distributed to the students randomly at the canteen. The questionnaires were then sorted out according to departments, 24 were respondents from the Commerce Department, 23 respondents were from the Information, Communication and Technology Department, 18 respondents were from Electrical Engineering Department and the other respondents were from the Mechanical Engineering Department. The breakdown of the respondents is shown in figure 1.1 below.

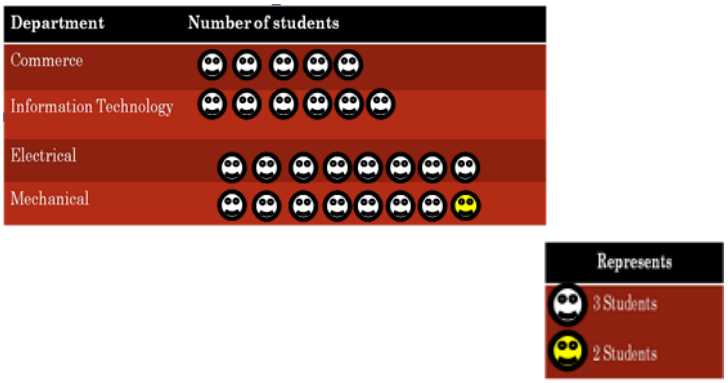


Figure 1.1

It was also found out how regularly students go to the canteen. 41% of the students go to the canteen regularly whereas 38% of students go to the canteen often. The remaining 17% of the students seldom go to the canteen. It can be concluded that most of the students go to the canteen regularly. Figure 1.2 which is a doughnut chart shows how regularly students go to the canteen. The major points from the survey would be discussed in subsequent subtopics.

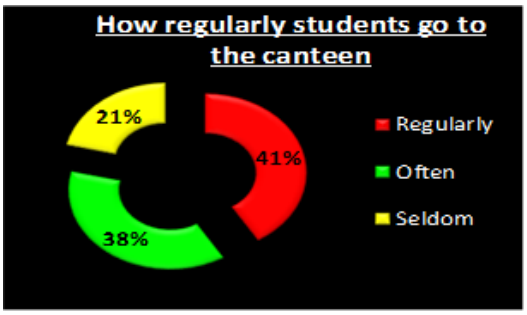


Figure 1.2

2.0 Findings

As mentioned in the introduction, the results from the survey were discussed in subsequent subtopics. For each subtopic, the results were presented in graphs and charts. The major points are as follow:

2.1 When do the students go to canteen?

The results from the questionnaire are shown in figure 2.1 in the form of a bar graph. The x-axis shows the time students go to the canteen whereas the y-axis shows the number of students. As we can see from the graph, 64% of the students go to the canteen during lunch time while 29% of the students go to the canteen at any time. The respondents who have no fixed time also mentioned their preferred canteen operating hours.

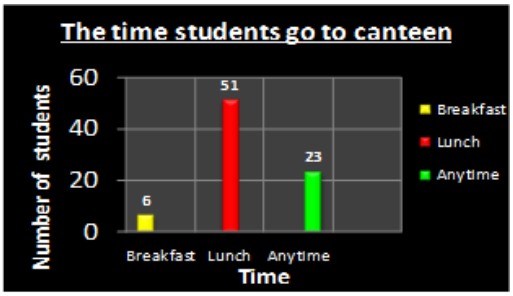


Figure 2.1

2.2 Which canteen operating hours do students prefer?

Figure 2.2 below represents a pie chart which shows the canteen operating hours the students preferred. The red sector represents 46% respondents who preferred 8 a.m-3p.m canteen operating hours. While 24% of the respondents shown in the yellow sector preferred 8a.m- 2p.m canteen operating hours. The blue sector indicates 17% of the respondents who preferred 8a.m- 6p.m canteen operating hours. The lowest percentage of the respondents preferred 8a.m-4p.m canteen operating hours which is shown in the green sector. From the pie chart, we can conclude that most of the students preferred 8a.m-3p.m canteen operating hours. We also found out the students' satisfaction on quality of food sold at the canteen.

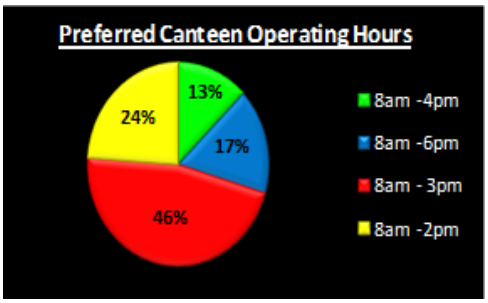


Figure 2.2

2.3 Are the students satisfied with the quality of food?

Based on the survey on the quality of food, 37 respondents said that they were satisfied with the quality of foods. 14 respondents said that the quality of foods was good whereas 11 respondents said that the quality of foods was excellent. There were 10 respondents saying the quality of food was very poor and 8 respondents who said that the quality of food was excellent. From this we can conclude that most of the students were satisfied with the quality of foods. 100% of PSP students can eat the foods provided at the canteen. In figure 2.3, the results on the students' satisfaction on the quality of foods were presented in a bar graph. The y-axis shows the number of students and the x-axis shows the students' satisfaction on the quality of foods. In discussing the food quality there was a question raised about the food pricing.

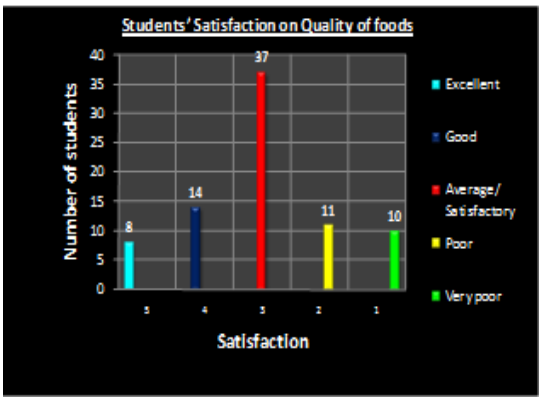


Figure 2.3

2.4 Are the students satisfied with the price of the food?

The results for this question are shown in figure 2.4 below and they are presented in a pie chart. As can be seen from the pie chart, the red sector represents 45% of the respondents who said that they were satisfied with the price of foods. The purple sector represents 20% of the respondents

who said that the prices of foods were good or reasonable and 15% of the respondents in green sector said that the price of foods were very poor. 11% of the respondents in the yellow sector said that the price of foods were poor and the remaining 9% of the respondents in the blue sector said that the price of foods were excellent. From this, we can conclude that most of the respondents were satisfied with the price of foods at the canteen. The other major point that would be discussed is about the cleanliness of the canteen.

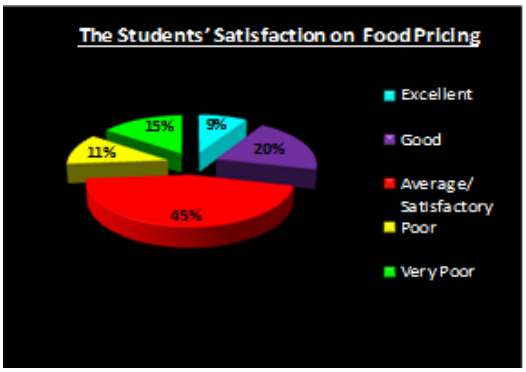


Figure 2.4

2.5 Are the students satisfied on canteen cleanliness?

In figure 2.5, the horizontal bar graph shows students' satisfaction on canteen cleanliness. The x-axis shows the students' satisfaction on canteen cleanliness while the x-axis shows the number of students. There were 23 out of 80 respondents who claimed that the cleanliness of the canteen were poor while 20 out of 80 respondents claimed that the canteen's cleanliness was very poor. Besides that, there were 14 out of 80 respondents who claimed that they were satisfied with the cleanliness of the canteen while 11 out of 80 respondents claimed that the cleanliness of the canteen were good. The remaining two respondents out of 80 respondents claimed that the cleanliness of the canteen were excellent. From the graph, we can conclude that most of the respondents' felt that the cleanliness of the canteen was poor.

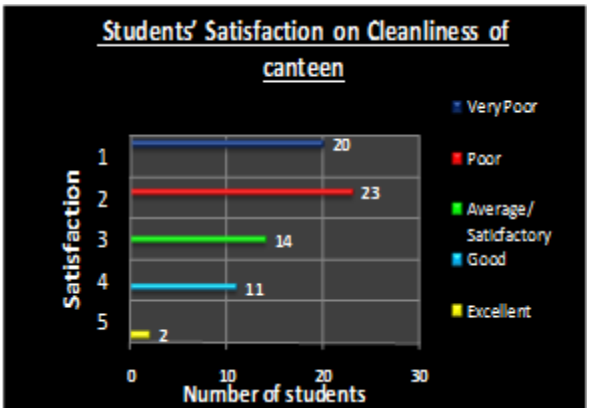


Figure 2.5

2.6 Is the environment conducive?

In relation to the discussion on canteen cleanliness, the students' satisfaction on the canteen environment was also discussed. The results from the survey were presented in a bar graph as seen in figure 2.6. The y-axis shows the number of students whereas the x-axis shows the students' satisfaction on the canteen environment. The highest number of students claimed that the canteen environment was satisfactory and conducive. Besides that, the second highest number of students claimed that the canteen environment was poor while 15 respondents claimed that the canteen environment was very poor and not conducive. Other than that, there were 12 respondents who claimed that the canteen environment was good and conducive. Only one respondent claimed that the canteen environment was excellent. From the graph and discussion above, it can be concluded that the canteen environment was satisfactory and conducive for most of the students.

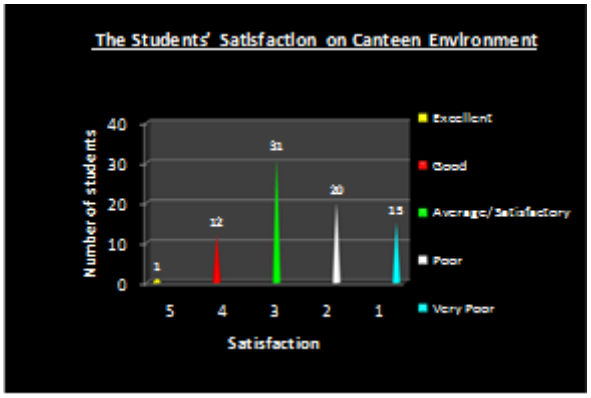


Figure 2.6

2.7 Are the facilities provided in the canteen adequate?

Another subtopic to discuss is the students' satisfaction on the facilities provided in the canteen. From figure 2.7, the doughnut chart, we can see that a large number of students said that the facilities provided in the canteen were poor and not adequate. Only 29% of the students said that the facilities provided in the canteen were satisfactory and adequate. The blue sector represents 19% of the students saying that the facilities provided in the canteen were very poor and not adequate while the pink sector showed 15% of the students said that the facilities provided in the canteen were good. There were only 3% of the students who said that the facilities provided in the canteen were excellent and very adequate. From the graph below, we can conclude that most of the students said that the facilities provided in the canteen were poor and not adequate.

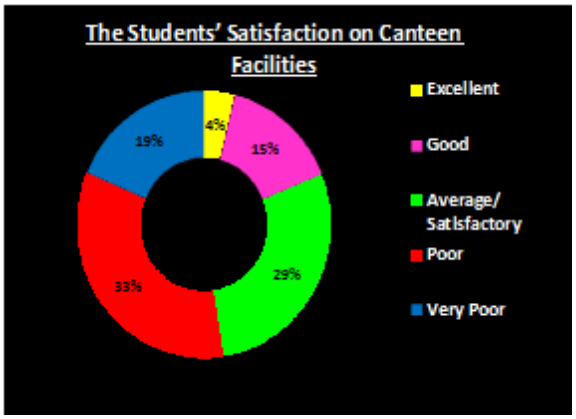


Figure 2.7

2.8 Are the canteen operators friendly?

Another issue brought up was the students' satisfaction on canteen operators' services. Figure 2.8 shows a horizontal bar graph. The x-axis shows the number of students whereas the y-axis shows the students' satisfaction on canteen operators' services. From the graph below, we can see that 27 respondents said that they were satisfied with the canteen operators' services and that the operators were friendly. 25 respondents said that the services given by the canteen operators were good and they were friendly. There were 15 respondents who said that the services given by the canteen operators were poor while 10 respondents said that the canteen operators' services were very poor and they were unfriendly. The least number of students or three respondents said that the canteen operators' services were excellent and they were very friendly. From the graph, we can conclude that a large number of students were satisfied with the services given by canteen operators and that they were friendly.

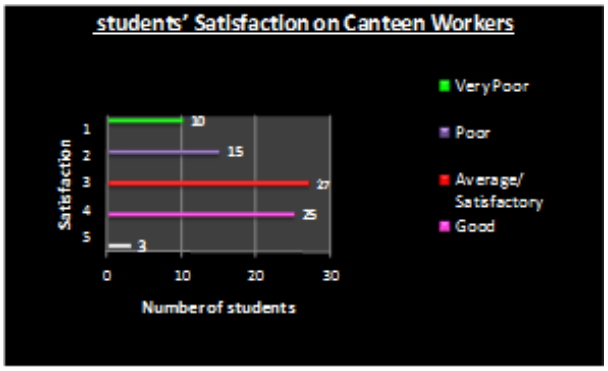


Figure 2.8

3.0 Conclusion

Based on the survey, it was noted that most of the students who patronize the canteen are from the Commerce Department. The majority of the students preferred the present time of the canteen operating hours which is from 8am until 3pm. Besides that, from the survey, it was also found out that most of the students go to the canteen during lunch time. From the results of the survey, we can conclude that a large number of students were satisfied with the canteen environment, canteen operators' services, the quality of foods and the foods pricing. They found these four aspects of the PSP canteen as reasonable and satisfactory when comparing with the situation outside.

On the other hand, there were a large number of students who were dissatisfied with the aspects of cleanliness of the canteen and the facilities provided in the canteen. They claimed that these are the main problems they faced when they patronize the canteen. The students also recommended some suggestions to overcome these problems. The comments and recommendations from the students who participated in this survey would be discussed in the comments and recommendations parts.

4.0 Recommendations

From the survey, it was found that a large number of students commented on the facilities provided in the canteen. They commented that the tables and chairs in the canteen were not enough for students and PSP staff. Therefore, the students sit and use the tables and chairs reserved for the staff. Sometimes the staff also has to use the students' tables and chairs when they do not have place to sit and eat. Students also commented that the foods at the canteen were not covered so there were many flies hovering on the foods. Besides the flies, the cats were another problem to the students. The cats were disturbing and the students were not comfortable when eating at the canteen. The students also complained that the environment was not clean and the tables were full with plates and food waste. Another comment was the canteen was too crowded especially during lunch time which was the peak time.

To overcome these problems, the students have recommended some suggestions to improve and upgrade the PSP canteen services. The students recommended the PSP management and canteen operators should provide more tables and chairs for students as well as for PSP staff also. They also recommended that the canteen operators cover the foods so that there would be no flies perching on the foods. To overcome the cats' disturbance, the students suggested that the canteen workers to prevent the cats from entering the canteen compound. There should also be some workers to take responsibilities to solve the problems related to cleanliness and the canteen environment. The tables should not be left with used plates and waste foods. Everyone is responsible to maintain and keep the environment and tables clean including the students, PSP staff, canteen workers and the canteen cleaners.

The students also have given some suggestions and opinion to overcome the problem of the canteen being too crowded. One of the suggestions is the PSP management renovate the canteen to make it bigger than the present canteen. Besides that, they also suggested that the students' break time should be changed. There are two opinions to split the break time. The first opinion is to divide the students' break time into two different times that is 12.30pm until1.30pm whereas another break time is at 1.30pm until 2.30pm. The second opinion is to divide the students' break time into two different times also but according to the semesters. The students from semester 1, 2 and 3 will have their break at 12pm until 1pm while students from semester 4, 5 and 6 will have a break starting from 1pm until 2pm. When the break time is split into two times, the crowd at the canteen during the peak time can be reduced and the facilities in the canteen also will be enough for the students and staff.

It is hoped that the results of the survey, the students' comments and suggestions are useful and helpful for better canteen services. The information and the report would be useful for the PSP management to take the right actions on the issues raised by the students, to improve the canteen services and to provide better facilities.

A Survey on Students' placement for Industrial Training in relation to their Field of Studies in the Commerce Department

1.0 Introduction

Industrial Training is one of the subjects that must be taken by students of the Seberang Perai Polytechnic as a partial fulfillment before they are awarded a Diploma. During the Industrial Training students get to practice what they have learnt in the Polytechnic. However to get a suitable place and to undergo training in a related field can be difficult for some students at times.

The objectives of this project are to carry out a survey on Industrial Training workplace in relation to students' field of study in the Commerce Department during the June 2012 session and also to find out the different sectors of Industrial Training placement. The survey was carried out from 4 to 15 February 2013. A questionnaire was distributed to a total of 50 students in Semester 5. The data is shown in the table below:

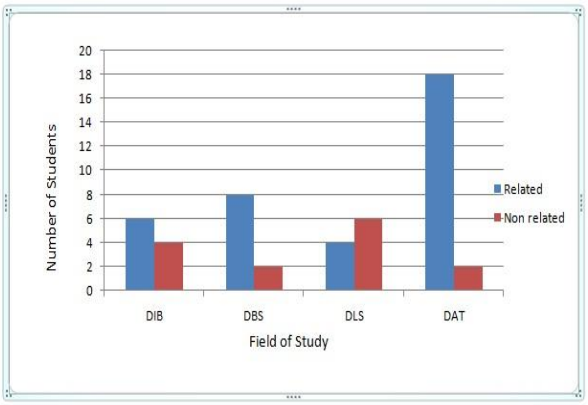
Programme	Number of students	
	Related	Non related
Diploma in Accountancy (DAT)	18	2
Diploma in Business Studies (DBS)	8	2
Diploma in Logistics and Supply Chain (DLS)	4	6
Diploma in Islamic Banking (DIB)	6	4
TOTAL	36	14

Table 1.1

2.0 Findings

Results of the questionnaire were analysed and discussed under the subsequent sub headings:

2.1 Industrial training placement according to field of study.



Firgure 2.1

The bar graph shows a survey on Industrial Training workplace in relation to students' field of study in the Commerce Department during the June 2012 session. The x-axis represents four different programmes. They are Diploma in Islamic Banking (DIB), Diploma in Business Studies (DBS), Diploma in Logistics Management (DLS), and Diploma in Accountancy (DAT). Meanwhile, the y-axis represents the number of students. As can be seen from the graph the overall trend shows that most of the students were placed in a workplace related to their field of study.Six students in the DIB programme were placed in workplaces related to their field of study. However, four students were placed in workplace not related to their field of study. These four students were placed in Lafaz Malayan Cement Company as an operator, Telekom Malaysia Berhad as a clerk, Maxis Centre as an office boy and TF Value Supermarket as a cashier.

Eight students In the DBS programme were placed in workplaces related to their field of study. While two students were placed in workplaces not related to their field study. These two students were placed in the District Education Office and Town Council clerks.

Four students in the DLS programme were placed in workplaces related to their field of study. However, six students were placed in workplaces not related to their field of study. These six students were placed in Pusat Urusan Zakat as Administrative Assistance, Tabung Haji as a Customers Service Operator, Spa Beauty as an Advertising Assistance, Giant Hypermarket as a promoter, Audit Firms as an Accounts Assistant and Hotel Sri Malaysia as a Marketing Assistant. Lastly, 18 students in DAT programme had training related to their field of study. However, two students were trained in a field not related to their field of study. These two students underwent training at Public Bank as an Operator and Starfresh Agro Park as a Guide.

2.2 Different Sectors of Industrial Training Placement

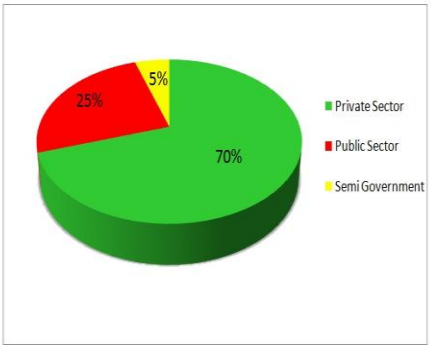


FIGURE 3.1

The pie chart in the figure shows the different sectors where students were placed for the Industrial Training. As can be seen from the pie chart, 70% of the students were in the private sector. The 70% represent 35

students. These students had their internship at Kamal Badri Consultant Cooperation Management Sdn.Bhd. and Haniza Management Service. 25% of the students were placed in the public sector. The 25% represent 13 students. Some students were placed at the District Education Office and Malaysian Civil Defense Department.

Another, 5% went to semi government offices such as the Town Council and the Municipal Council. From the pie chart, it can be concluded that the majority of the students or 70% were placed in the private sector during their Industrial Training in the June 2012 session.

3.0 Conclusion

It can be concluded that students of Diploma in Accountancy programme were mostly placed in their related field of study among students of Seberang Perai Polytechnic.

Types of Learning Styles Employed by Students of the Seberang Perai Polytechnic

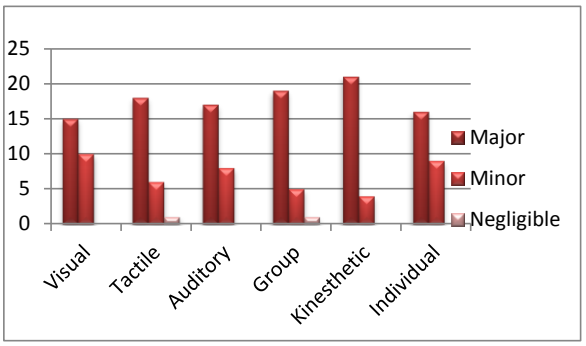
1.0 Introduction

Students learn in many different ways. For example, some learn primarily with their eyes (visual learners) or with the ears (auditory learners), some prefer to learn by experience and / or by 'hands – on' tasks (kinesthetic or tactile learners) some learn better when they work alone while others prefer to learn in groups. A survey was carried out between 1 and 4 February 2013 to investigate the student's learning style among students' of the Seberang Perai Polytechnic. The questionnaires were randomly distributed to a total of 50 students of Seberang Perai Polytechnic.

2.0 Findings

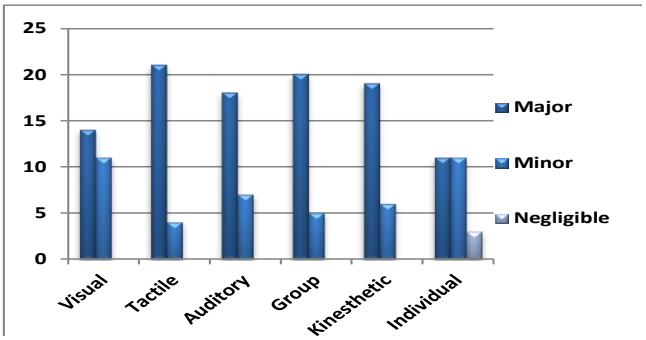
Results of the survey were analysed and discussed under the following sub headings:

2.1 Learning Style of Male Students of the Seberang Perai Polytechnic



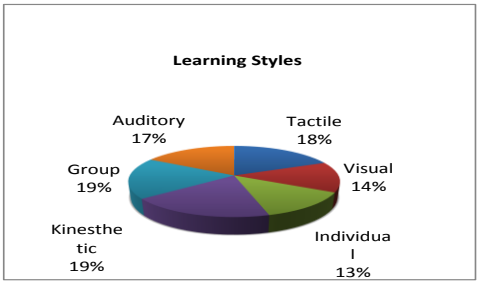
The graph shows the responses of male students of Seberang Perai Polytechnic on their learning styles. The x-axis shows the type of learning style while the y-axis shows the number of male students. 25 male students responded to the questionnaires. As seen from the graph, 21 male students are kinesthetic learners followed by 19 for Group learning and 18 for tactile learning. 17 male students preferred auditory learning followed by 16 who preferred Individual learning. The remaining 15 male students fall under the Visual learning category. From the graph, we can see that male students do not only choose one style of learning but they have multiple styles in learning. The number of kinesthetic learners is the highest while the number of Visual learners is the lowest in the survey.

2.2 Learning Styles of Female Students of the Seberang Perai Polytechnic



The bar graph shows the responses of the female students of Seberang Perai Polytechnic on their learning styles. The x-axis shows the types of learning styles while the y-axis shows the number of female students. 25 female students were involved in answering the questionnaires. As seen from the graph, 21 female students are Tactile learners followed by 20 who preferred Group learning and 19 for Kinesthetic learning. 18 female students preferred auditory learning followed by 14 who like Visual learning. The remaining 11 female students fall under the individual learning category.

From the graph, it can be seen that female students too do not only devote to one style of learning, but they have multiple styles of learning. The number of individual learners is the lowest in the survey.



The pie chart resulting from the findings of the survey showed that there are six learning styles of Seberang Perai Polytechnic students. They are Auditory, Group, Kinesthetic, Individual, Visual and Tactile. As seen from the pie chart, Kinesthetic has the highest number of learners followed by Tactile and Group learners. Kinesthetic learners are more prone to having a physical class activity rather than listening to a lecturer or watching a demonstration. While tactile learners prefer to do hands on activities such as lab work. As for the group learners, they prefer to do their tasks together in order to achieve work efficiency. Next, auditory falls on the fourth place followed by visual and last but not least are the individual learners.

In conclusion from the pie chart, we know that the number of students with Kinesthetic Learning Style is the highest and the number of students with Individual Learning Style is the lowest.

3.0 Conclusion

It can be concluded that Kinesthetic learning style is the most popular student learning style among students of Seberang Perai Polytechnic. With

this learning style, students understand more when doing practical tasks rather than listening to a lecturer or watching a demonstration.

4.0 Recommendations

From the survey it is noted that students like to learn using Kinesthetic Learning Style. This is because students can understand more easily. They do their tasks better through practice and by reinforcing on what they are learning. Lecturers should allow students to study in a fun and relax environment. Lecturers should not just teach in the classroom but make full use of the laboratories where students can use the computers to get information from the internet. From the survey, it is recommended for the lecturers to make lots of role playing activities in the classroom so that students can be less stressful. Seberang Perai Polytechnic also should improve students learning facilities. Focus should be put more on facilities that encourage students to do hands on activities. Students should not be afraid to voice out their opinion. For instance, they can suggest to the lecturers which are the right methods to teach them. Lecturers should pay heed towards students' opinion and cater to their needs.

A Survey on Factors Affecting Muslim Hostelites from Performing Maghrib and Isya' Prayers at the *Pusat Islam*

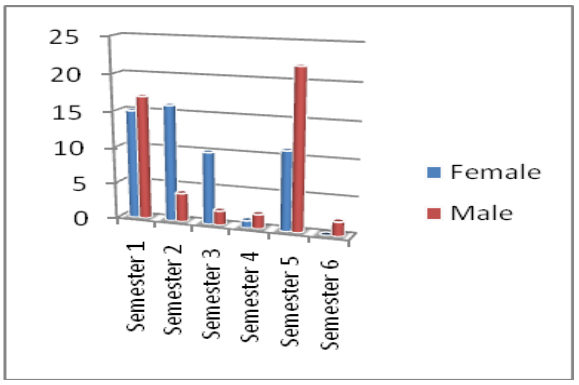
1.0 Introduction

The Pusat Islam is a centre providing facilities for religion activities. The survey aimed to find out the factors affecting hostelites from performing Maghrib and Isya' prayers at the *Pusat Islam*. Data for this report were gathered from 28/01/2013 to 07/01/2013. A survey was carried out between 05/01/2013 and 07/01/2013. The questionnaires were distributed to a total number of 100 respondents among Muslim hostelites. They were interviewed between 06/08/2012 and 10/08/2012, the same date the questionnaires were distributed.

2.0 Findings

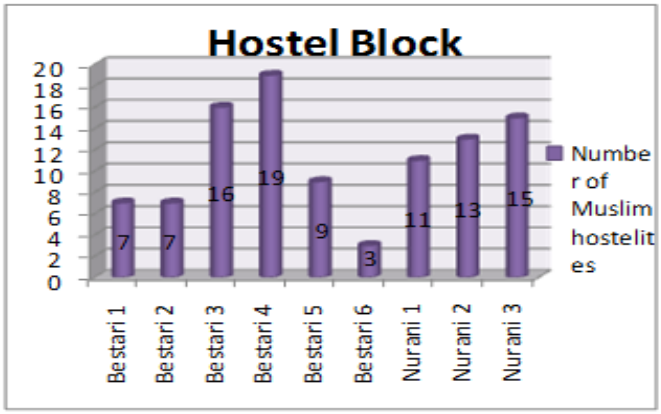
Results of the survey were analysed and discussed under the following sub headings:

2.1 Number of respondents according to gender and semester



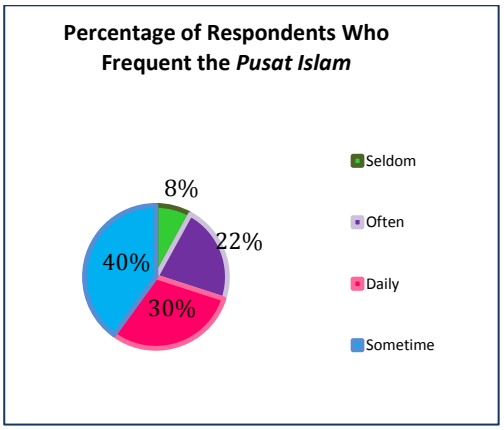
The bar graph shows the number of male and female respondents who went to *Pusat Islam* for prayers. The the x-axis represents the semester while the y-axis represents the number of hostelites. The total number of female hostelites who went to *Pusat Islam* was 53 while the total number of male hostelites was 49. As can be seen from the graph, the overall trend shows that female hostelites went to *Pusat Islam* more frequently than male hostelites.

2.2 The number of respondents according to hostel blocks



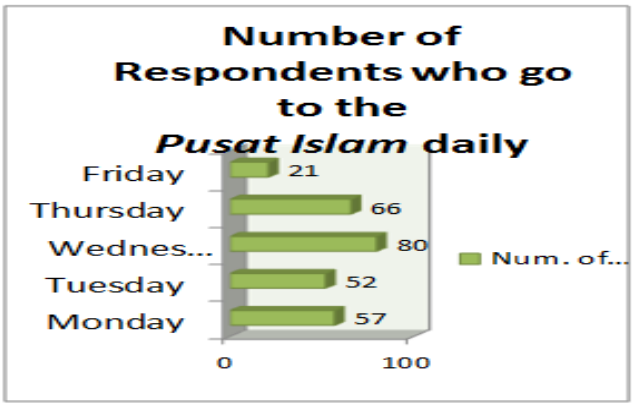
The bar graph shows the number of Muslim hostelites according to hostel blocks. The y-axis represents the number of hostelites while the x-axis represents the blocks. As can be seen from the graph the highest number of Muslim hostelites who went to *Pusat Islam* according to blocks was from Bestari 4 with 19 hostelites. The second highest was Bestari 3 with 16 hostelites. The third highest number of hostelites was Nurani 3 with 15 followed by Nurani 2 with 13 hostelites. Nurani 1 with 11 hostelites. Bestari 5 with nine hostelites. Bestari 2 and Bestari 1 had the same number of hostelites with seven hostelites and the last was Bestari 6 with only three hostelites.

2.3 Percentage of respondents who frequented the *Pusat Islam*



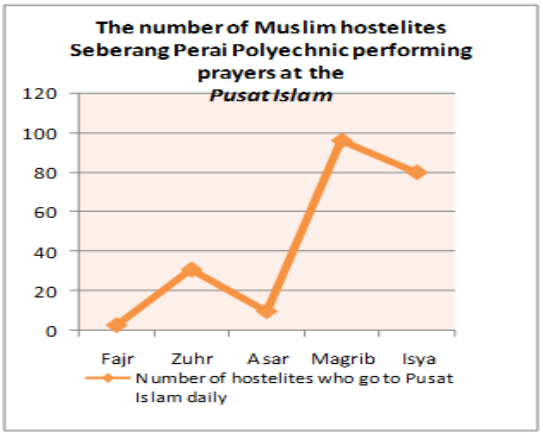
The pie chart above shows the percentage of Muslim hostelites who frequently go to the *Pusat Islam*. The blue sector represents the biggest percentage with 40% hostelites indicating respondents who went to *Pusat Islam*. The red sector represents the number of respondents who go to *Pusat Islam* daily. 8% of the respondents as in the purple sector, were respondents who often go to the Pusat Islam. The green sector represents 8% or the smallest percentage of the hostelites who seldom go to *Pusat Islam*. We can conclude that not all the respondents go the Pusat Islam every day.

2.4 Number of Respondents who go to the *Pusat Islam* daily



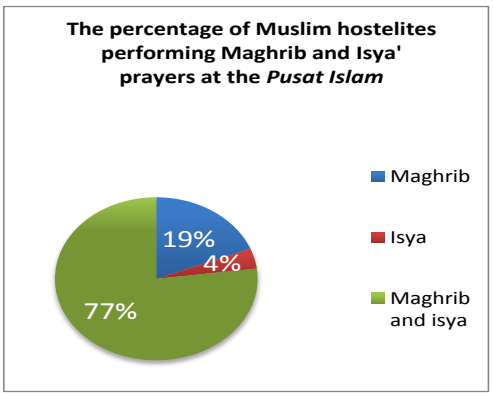
The bar graph shows the number of Muslim hostelites who go to the *Pusat Islam* daily. The x-axis represents the number of hostelites, while the y-axis represent days. The biggest number of respondents who went to the *Pusat Islam* was on Wednesday with 80 of them. The reason why that day had the highest number of respondents was because they had row call that night. The second highest number of respondents who went to *Pusat Islam* was on Thursday with a total of 66 respondents. That was because on that night the *Pusat Islam* organized the Yassin recitation. The third was on Monday with 57 respondents. The second last was on Tuesday with 52 respondents and the least number of respondents who went to *Pusat Islam* was on Friday with 21 respondents. Overall, we can conclude that the highest number of respondents who went to *Pusat Islam* was on Wednesday.

2.5 The number of respondents performing prayers at the *Pusat Islam*



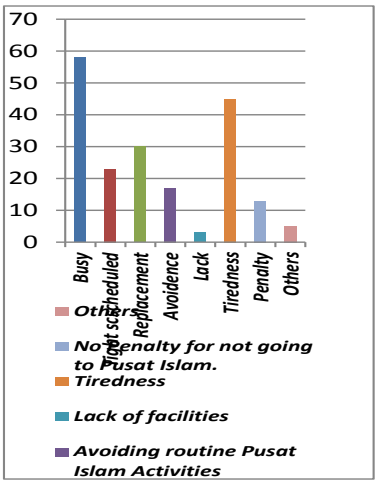
The Line graph shows the number of hostelites in the Seberang Perai Polytechnic performing prayers daily at the *Pusat Islam*. The x-axis shows the prayer times in a day while the y-axis shows the number of hostelites. From the graph, we can see that during Farj, only three hostelites performed prayers at *Pusat Islam*. Meanwhile, it slightly increased to 28 hostelites prayer at Zuhr. During the Asar prayer, the number of hostelites declined considerably to less than 20 hostelites. There is a sharp rise at Maghrib time reaching a peak with 96 hostelites performing prayers at the *Pusat Islam*. The number of hostelites declined to less than 80 hostelites at Isya'.

2.6 The percentage of Muslim hostelites performing Maghrib and Isya' prayers at the *Pusat Islam*



The pie chart above shows the percentage of Muslim hostelites performing Maghrib and Isya' prayers at the *Pusat Islam*. The green sector shows 77% of the hostelites performed Maghrib and Isya' prayers at the *Pusat Islam*. The blue sector represents the hostelites who performed only Maghrib prayers at the *Pusat Islam* which was 19%.The red sector represents the smallest percentages of hostelites who went to *Pusat Islam* for Isya' prayers which was 4%.As a conclusion, most of the hostelites performed Maghrib and Isya' prayers at *Pusat Islam* daily.

2.7 Factors affecting hostelites from performing prayers at the *Pusat Islam.*



Based on data obtained and analyzed the reasons or factors affecting hostelites from performing prayers at the Pusat Islam were listed and presented in the bar graph above. The x-axis represents the factors affecting hostelites from performing *Maghrib* and Isya' prayers at the *Pusat Islam*. While the y – axis shows the total number of hostelites. There were eight factors affecting hostelites from performing Maghrib and Isya' prayers at the *Pusat Islam*. As can be seen in the graph, 58 hostelites did not go to the *Pusat Islam* because they were busy with assignments. That was the main factor why the hostelites did not go to the *Pusat Islam*. 45 other hostelites claimed to be too tired while 23 hostelites responded that they ahd a tight class schedule. 30 hostelites did not go to the *Pusat Islam* because they were busy with replacement classes.17 hostelites simply avoided the

routine. 13 hostelites said that there was no penalty for not going to the *Pusat Islam*. Only a small number of repsondents claimed that the Pusat Islam lacked facilities.

3.0 Conclusion

It can be concluded that there were several factors preventing hostelites from going to the *Pusat Islam* to perform Maghrib and Isya' prayers such as tight class schedule, tiredness, busy with replacement classes and assignments. The main reason why they did not go was because they had a tight class schedule. The classes started at 8a.m and ended at 5p.m while some classes ended at 6p.m. Hence the hostelites needed the time to do their assignments during the time they were asked to go to the *Pusat Islam.* Another reason why hostelites stayed away from the Pusat Islam during the Maghrib and Isya' prayers was they had to attend replacement classes at night. The replacement classes started at 8. 30 p.m and ended at 10.30 p.m. They also mentioned their tiredness. During the day time, they had a tight class schedule and they claimed to be too tired to go to the Pusat Islam to perform the Maghrib and Isya' prayers.

4.0 Recommendations

To overcome the problems it is recommended that routine activities be made more interesting such as by showing interesting videos and inviting experts to give a talk. The fellows and advisors of *Pusat Islam* should advise hostelites who do not turn up at the *Pusat Islam*. The *Rakan Pusat Islam (RPI) can also* co-operate with the *Jawatankuasa Perwakilan Kolej Kediaman (JPKK)* to do spot checks at the hostel blocks.

A Survey on Safety Awareness in the Workshops among Mechanical Engineering Students

1.0 Introduction

Safety is the state of being "safe". According to the Wikipedia, safety is the condition of being protected against physical, social, spiritual, financial, political, emotional, occupational, psychological, educational or other types or consequences of failure, damage, error, accidents, harm or any other event which could be considered non-desirable. Safety can also be defined to be the control of recognized hazards to achieve an acceptable level of risk. This can take the form of being protected from the event or from exposure to something that causes health or economic losses. It can include protection of people or of possessions.

In vocational and technical training, safety in the workshops is given much emphasis. Vocational and technical students are trained to observe safety rules and regulations in the workshops. They are also trained to follow work procedures and ensure safety in carrying out activities in the workshops.

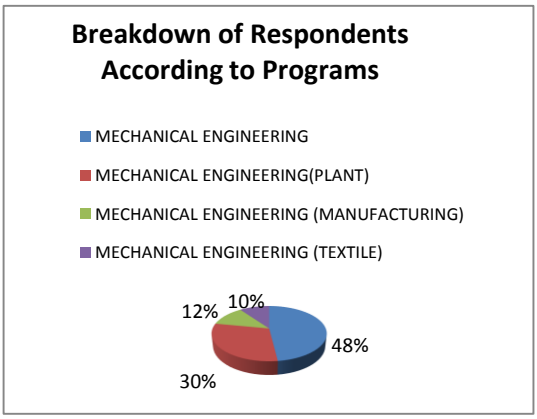
A survey was carried out to find out students' awareness on safety procedures in the workshops. The survey was carried out between14/08/2013 and 16/08/2013. Questionnaires were distributed to a total of 50 respondents from Mechanical Engineering Department. Five respondents were interviewed on between 19/08/2013 and 20/08/2013, the same date the questionnaires were distributed.

The objectives of this project are to survey on safety awareness in the workshop among Mechanical Engineering students' and to provide recommendations to increase students' safety awareness. Data for this report was analyzed from 23/07/2013 to 23/08/2013.

2.0 Findings

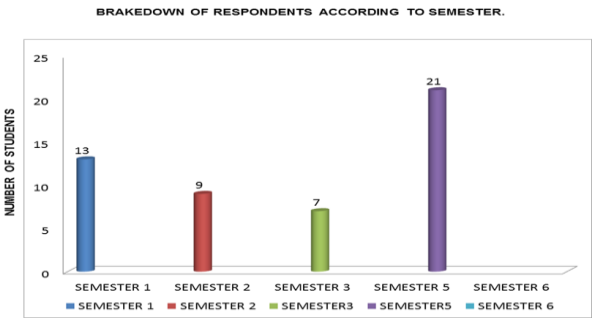
Results of the survey were analysed and discussed under the subsequent sub headings:

2.1 Breakdown of respondents according to program



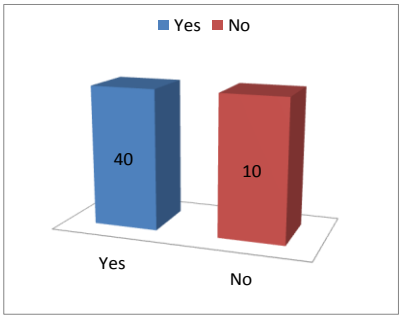
The pie chart shows the breakdown of respondents according to programs. About 50 Mechanical Engineering students from the Mechanical Engineering Department participated as respondents of the survey. 48% as shown in the blue sector were students of General Mechanical Engineering, the red sector comprised 30% of the respondents majoring in Plant, another 12% shown in the green sector were respondents majoring in Manufacturing and 10% in the purple sector were respondents majoring in Textile.

2.2 Number of respondents according to semester



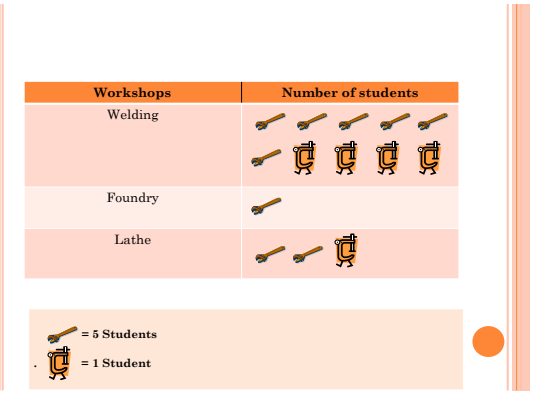
The bar graph above shows the number of respondents according to semesters. The horizontal axis represents the semesters while the vertical axis shows the number of students. The blue bar represents semester one respondents, the red bar shows semester two respondents, the green bar shows semester three respondents and the purple bar shows semester five respondents. The total number of respondents in semester five was the highest. There was no respondent from Semester 6.

2.3 Do you feel safe in the workshops?



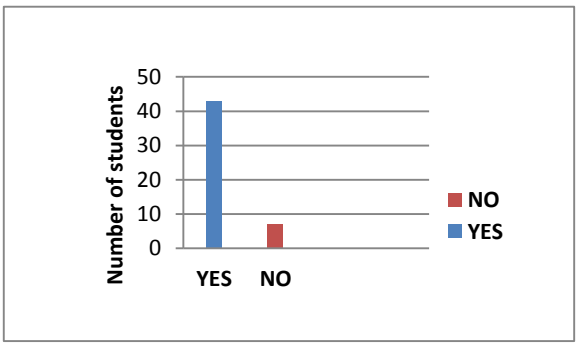
The bar graph shows the feedback on whether students feel safe in the workshops. The x axis shows the number of respondents and the y axis shows their feedback. 80% of the respondents felt safe in the workshops and the remaining 20% commented that they did not feel safe in the workshops.

2.4 Which workshops do you think poses high risk to you?



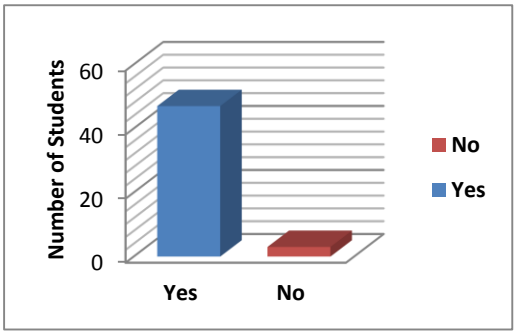
The pictograph shows numerical information by using symbol or icon to represent the data collected from the respondents. 34 respondents said that the Welding Workshop poses high risk, while 11 students said that the Lathe Workshop poses high risk and the remaining five respondents said that the foundry workshop poses high risk. The survey found out that the majority or 68% of the respondents said that the Welding Workshops poses high risk. These 34 students commented that the welding activities could be dangerous because the activities involve the use of acetylene gas. The gas is highly flammable and can be hazardous.

2.5 Do you ask for permission before using the equipment/tools in the workshops?



The bar graph shows the feedback from the respondents on whether students ask for permission before using equipment/tools in the workshops. The horizontal line shows the responses and the vertical line shows the number of students. The blue bar shows 43 students asked for permission before using the equipment/tools in the workshops. While the red bar shows seven students responded that they did not ask for permission before using the equipment/tools in the workshops. The survey shows that majority of the respondents were aware that they need to ask for permission before using the equipment/tools in the workshops.

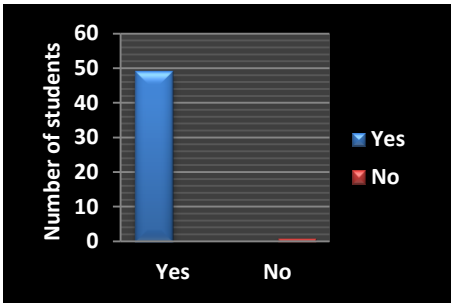
2.6 Do your lecturers brief you on the safety procedures in the workshop at the beginning of the semester?



The bar graph shows feedback from the respondents on whether lecturers brief the students on safety procedures in the workshops at the beginning of the semester. The x-axis shows the responses. The y-axis shows the number of students. The blue bar shows 94% of the respondents answered yes that they were briefed by the lecturers on the safety procedures in the workshops at the beginning of the semester. While the red bar shows the remaining students responded that lecturers did not brief on the safety procedures in the workshops at the beginning of the semester. The survey showed that the majority of the respondents were aware of the

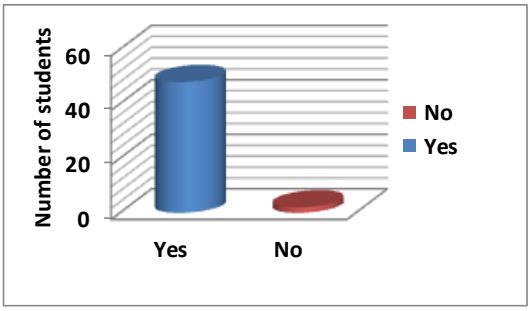
safety procedures in the workshops based on the information given during the briefing at the beginning of the semester.

2.7 Do you follow safety instructions before starting work?



The bar graph shows the feedback from the respondents on whether students follow the safety instructions before starting work. The horizontal line shows students responses and the vertical line shows the number of students. The blue bar shows 99% of the respondents followed the rules and safety instructions in the workshop and only 1% of the respondents said that they did not follow the safety instructions. It can be concluded that the majority of the respondents followed the safety instructions when carrying out activities in the workshops.

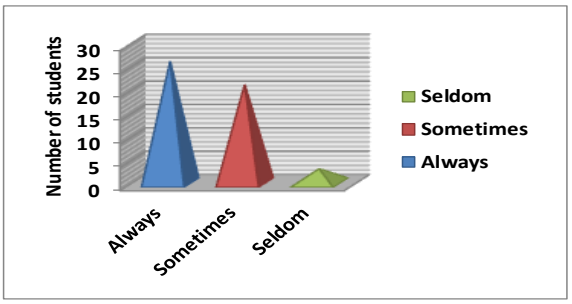
2.8 Do you notice the safety rules displayed in the workshops?



The cylinder graph shows the feedback from the respondents on whether they notice the safety rules displayed in the workshops. The x-axis

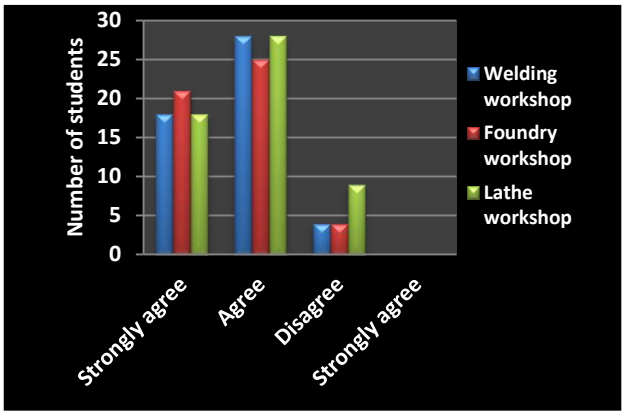
represents the responses and the y-axis represents the number of students. The blue cylinder shows the respondents who answered yes, they noticed the safety rules displayed in the workshops and the red cylinder shows the respondents who answered no, they did not notice the safety rules displayed in the workshops. 96% of the respondents answered yes and 4% answered no. It can be concluded that the majority of the respondents noticed the safety rules displayed in the workshops.

2.9 Do you handle machines in the presence of your lecturer?



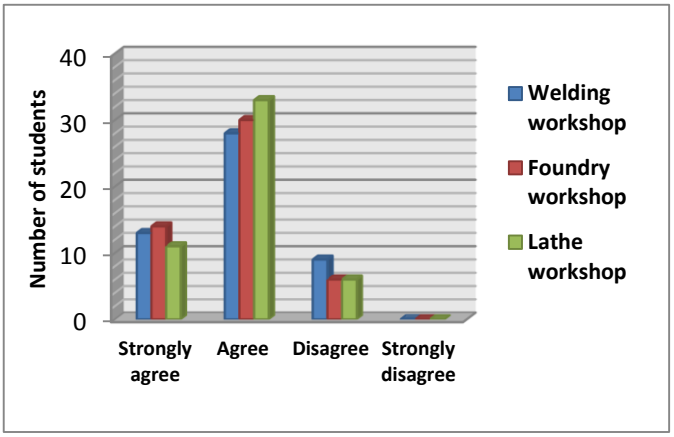
The pyramid graph shows the feedback from the respondents on how regularly they handle machines in the presence of their lecturers. The x-axis represents the frequency and the y-axis represents the number of respondents. The blue pyramid shows 56% the respondents said that they always handle machines in the presence of their lecturers. The red pyramid shows 38% of the respondents said that they sometimes handle machine in the presence of the lecturers and another 6% of the respondents as shown in the green pyramid said that they seldom handle machines in the presence of their lecturers. It can be concluded that although 56% of the respondents always handle machines under the supervision of their lecturers, another 44% did not always handle machines in the presence of their lecturers. This group of respondents sometimes handles machines in the absence of their lecturers which could be dangerous.

2.10 Respondents' feedback on cleanliness in the workshops



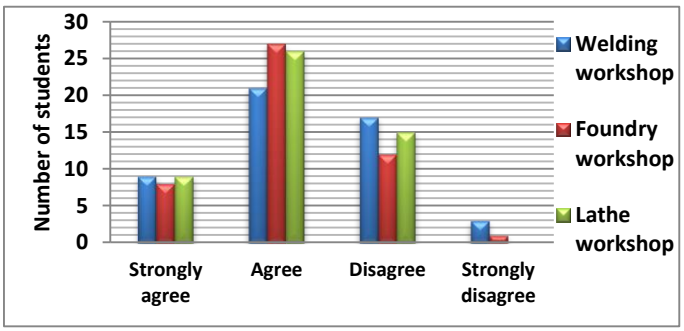
The bar graph shows the feedback from the respondents on whether the workshops are clean. The x-axis represents the feedback and the y-axis represents the number of students. The blue bar represents the welding workshop and the red bar represents the foundry workshop. The green bar represents the lathe workshop. 36% of the respondents strongly agreed that the welding workshop is clean. 56% agreed while 8% disagreed that the welding workshop is clean. 42% of the respondents strongly agreed that the foundry workshop is clean. 50% agreed and the other 8% disagreed that the foundry workshop is clean.36% of the respondents strongly agreed that the lathe workshop is clean. 56% agreed and 18% disagreed that the lathe workshop is clean. It can be concluded that majority of the respondents agreed that generally all the workshops are clean.

2.11 Respondents' feedback on the environment in the workshops



The bar graph shows the feedback from the respondents on whether the environment in the workshops is conducive. The x-axis represents the feedback and the y-axis represents the number of students. The blue bar represents the Welding workshop and the red bar represents the Foundry workshop. The green bar represents the Lathe workshop.26% of the respondents strongly agreed that the environment in the Welding workshop is conducive. 56% agreed while 18% disagreed that the environment in the welding workshop is conducive. 28% of the respondents strongly agreed that the environment in the Foundry workshop is conducive. 60% agreed and the other 12% disagreed that the environment in the foundry workshop is conducive. 22% of the respondents strongly agreed that the environment in the Lathe workshop is conducive. 66% agreed and 12% disagreed that the environment in the lathe workshop is conducive.

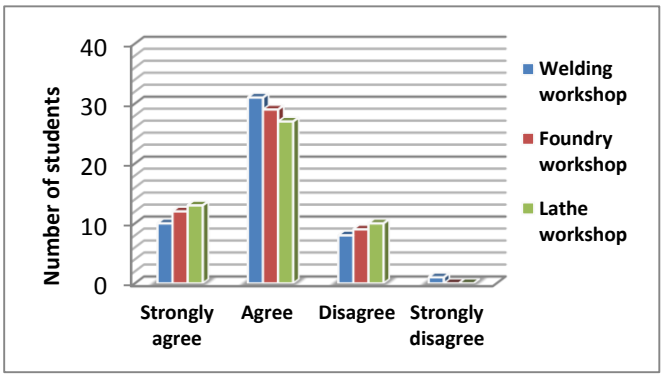
2.12 Respondents' feedback on the condition of equipment and tools in the workshops



The bar graph shows the feedback from the respondents on whether the equipment and tools are in good condition. The x-axis represents the feedback and the y-axis represents the number of students. The blue bar represents the Welding workshop and the red bar represents the Foundry workshop. The green bar represents the Lathe workshop. 18% of the respondents strongly agreed that the equipment and tools are in good condition in the Welding workshop. 42% agreed while 34% disagreed that the equipment and tools are in good condition in the welding workshop. Only 6% strongly disagreed. 16% of the respondents strongly agreed that the equipment and tools are in good condition in the Foundry workshop. 54% agreed and the other 24% disagreed that the equipment and tools are in good condition. Only 6% strongly disagreed.

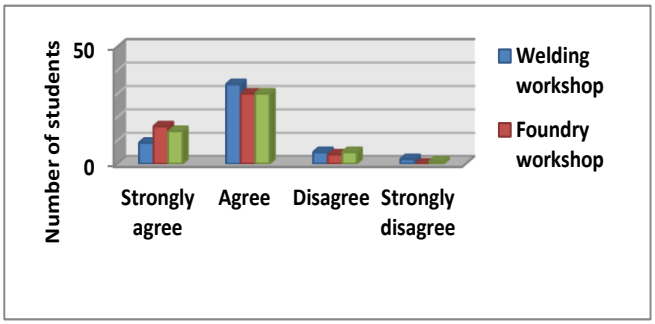
18% of the respondents strongly agreed that the equipment and tools are in good condition in the Lathe workshop. 52% agreed and 30% disagreed that the equipment and tools are in good condition in the Lathe workshop.

2.13 Respondents' feedback on the safety kits in the workshops



The bar graph shows the feedback from the respondents on whether the safety kits are easy to locate. The x-axis represents the feedback and the y-axis represents the number of students. The blue bar represents the Welding workshop and the red bar represents the Foundry workshop. The green bar represents the Lathe workshop. 20% of the respondents strongly agreed that the safety kits are easy to locate in the Welding workshop. 62% agreed while 16% disagreed that the safety kits are easy to locate in the welding workshop. Only 2% strongly disagreed. 24% of the respondents strongly agreed that the safety kits are easy to locate in the Foundry workshop. 58% agreed and the other 18% disagreed that the safety kits are easy to locate. 26% of the respondents strongly agreed that the safety kits are easy to locate in the Lathe workshop. 54% agreed and 20% disagreed that the safety kits are easy to locate in the lathe workshop.

2.14 Respondents' feedback on lecturers' supervision.



The bar graph shows the feedback from the respondents on whether the lecturer supervision is effective. The x-axis represents the feedback and the y-axis represents the number of students. The blue bar represents the Welding workshop and the red bar represents the Foundry workshop. The green bar represents the Lathe workshop. 18% of the respondents strongly agreed that the lecturer supervision is effective in the welding workshop. 68% agreed while 10% disagreed that the lecturer supervision is effective in the Welding workshop. Only 4% strongly disagreed. 32% of the respondents strongly agreed that the lecturer supervision is effective in the Foundry workshop. 60% agreed and the other 8% disagreed that the lecturer supervision is effective. 28% of the respondents strongly agreed that the lecturer supervision is effective in the Lathe workshop. 60% agreed and 10% disagreed that the lecturer supervision is effective in the Lathe workshop. Only 2% strongly disagreed.

3.0 Conclusion

It can be concluded that safety awareness in the workshops among the respondents in the survey was satisfactorily high. Only a small number of students did not give due attention to safety precautions in the workshops. Efforts could therefore be made to raise more awareness on safety precautions among the students and to generally emphasize the importance of adhering to safety rules in the workshops among all students.

Factors Causing Poor Performance in the Thermodynamics Course among Mechanical Engineering Students

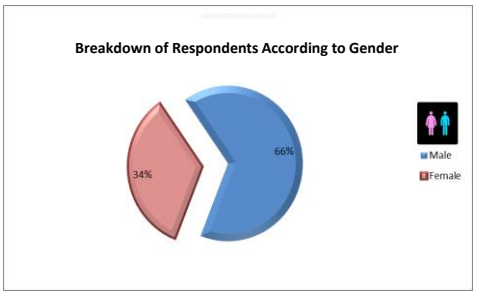
1.0 Introduction

Thermodynamics is a subject offered to all Mechanical Engineering students. The subject is offered in Semester 2. Thermodynamics is the science of energy (the ability to cause changes). Thermodynamic is important engineering tool used to describe processes that involves changes in temperature, transformation of energy and the relationships between heat and work. However general observation showed that many students do not perform well in the subject. Some students need to repeat the subject as it is compulsory to pass the subject.

A survey was carried out to find out what are the factors causing poor performance in the Thermodynamics course among Mechanical Engineering students. A total of 70 respondents from the Mechanical Engineering Department were involved. Questionnaires were distributed to the 70 respondents. All the respondents were chosen from Semester 2 and above involving those who had under taken the subject.

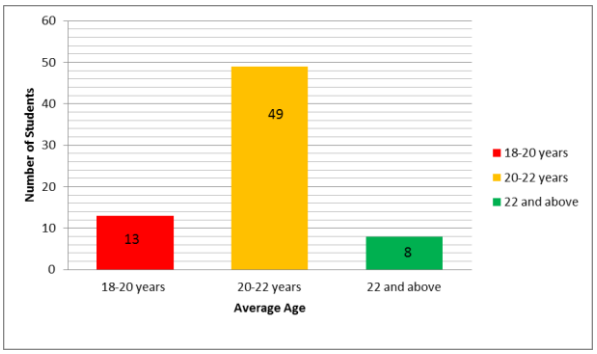
2.0 Demographic Data

2.1 Breakdown of Respondents According to Gender



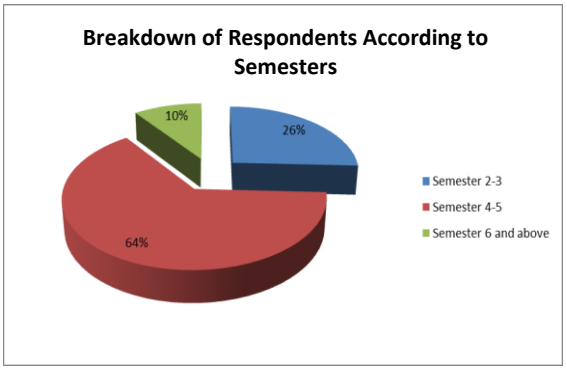
The pie chart shows the breakdown of respondents according to gender. The blue sector represents male students and the red sector shows the female students. As we can see from the graph, 66% of the respondents were male while the rest were female.

2.2 Breakdown of Respondents According to Age



The bar graph shows the breakdown of respondents according to age. The horizontal axis shows the average age of respondents in three age groups from 18 years old until 22 years old and above. The vertical axis shows the number of students. The red bar represents the average age of respondents from 18 years old to 20 years old. While, the yellow bar represents the average age of respondents from 20 years old to 22 years old. Lastly, the green bar represents the average age of respondents 22 years old and above. 13 out of 70 respondents were between 18 years old and 20 years old. 49 out of 70 respondents were between 20 years old and 22 years old. Lastly, only eight out of 70 respondents were between 22 years old and above. It can be concluded that the number of respondents in the average age group between 20 years old and 22 years old was the highest.

2.3 Breakdown of Respondents According to Semesters

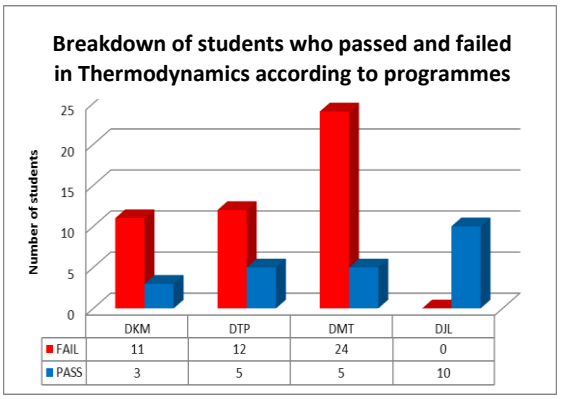


The pie chart shows the breakdown of respondents according to semesters. The blue sector shows students from semesters 2 and 3 and the red sector shows students from semesters 4and 5 while the green sector shows students from semester 6 and above.

3.0 Findings

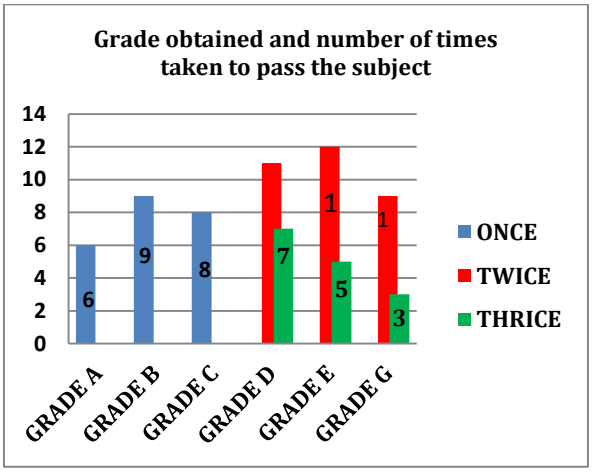
Results of the survey were analysed and discussed under the following sub headings:

3.1 Respondents' Examination Results in Thermodynamics



The bar graph represents breakdown of students who failed and passed in Thermodynamics according to programmes .The horizontal axis shows the programmes and the vertical axis shows the number of students. The blue bar shows students who passed and the red bar shows students who failed in the subject. In General Mechanical Engineering Programme, 11 students failed and only three students passed. While for the Mechanical Engineering in Manufacturing, 12 students failed and five students passed the subject. In Mechanical Engineering in Textile, 24 students failed and five students passed. Lastly, in the Mechanical in Power Plant programme, all students passed the subject. It can be concluded, that Mechanical Engineering in Textile programme had a large number of failures compared to respondents undertaking other programmes.

3.2 Grade Obtained and Number of Times Taken to Pass the Subject

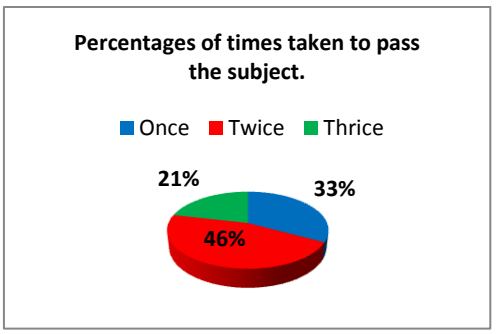


The bar graph represents the grades obtained and the number of times taken for the respondents to pass the subject. The horizontal axis shows the grades obtained and the vertical axis shows the number of students. The blue bar shows the number of respondents who took the subject once and the red bar shows the number of students who took the subject twice and the green bar shows the respondents who took the subject

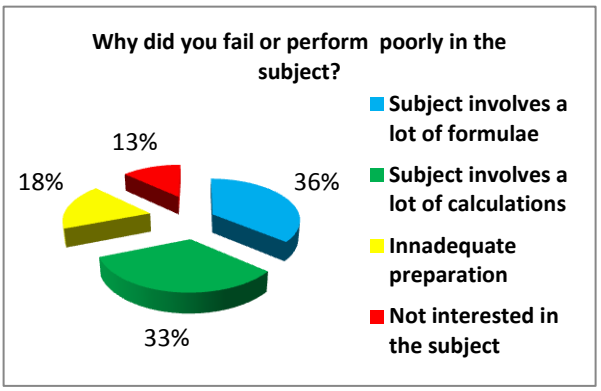
three times before passing the subject. From the survey, only 23 out of 70 respondents took the subject once and passed with grades A, B, and C. 32 out of 70 respondents took the subject twice and still failed. Lastly, another 15 out of 70 respondents who took the subject thrice also failed with grades D, E and G.

It can be concluded, that the number of respondents who took the subject two times and failed was the highest. These 32 or 46% of respondents obtained low grades in their first attempt and still could not improve their grades in the second attempt. The survey also showed that the number of respondents who repeated the subject three times was also high. The number of respondents who failed three times was 21%. These respondents tried to get better grades in all their attempts but still performed poorly and obtained grades D, E and G.

The pie chart below summarizes the findings of the survey. The blue sector shows the number of respondents who took the subject once and passed the subject. The red sector shows the number of respondents who took the subject twice and still performed poorly. Lastly, the green sector shows the number of respondents who took the subject three times and still failed the subject. Respondents who took the subject three times would be given the last chance to repeat the subject.

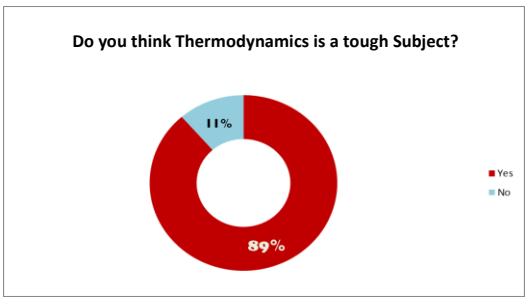


3.3 Why did you fail or perform poorly in the subject?



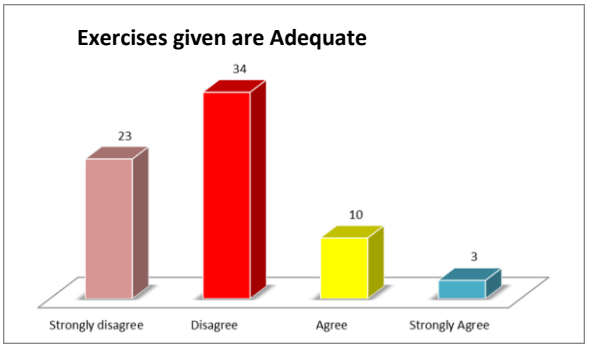
The pie chart shows the responses on why the respondents failed or performed poorly in the subject. The blue sector shows 36% of the respondents claimed that they failed or performed poorly because the subject involves a lot of formulas. The green sector shows 33% of the respondents claimed that the subject involves a lot of calculations. The yellow sector shows 18% of the respondents admitted that they had inadequate preparation. Last but not least, the red sector represents 13% of the respondents who admitted that they did not do well because they had no interest in the subject. It can be concluded that 36% or the highest number of respondents said that the subject involved a lot of formulas causing them to perform poorly in the subject

3.4 Do you think Thermodynamics is a tough subject?



The doughnut chart represents the responses on whether Thermodynamics was a tough subject or not. The red sector shows 89% of the respondents answered "yes". While, the blue sector, shows only 11% answered that Thermodynamics was a tough subject. It can be concluded that an outstandingly high percentage or 89% of the respondents considered Thermodynamics as a tough subject. Only 11% or eight out of 70 respondents did not think of it as a tough subject.

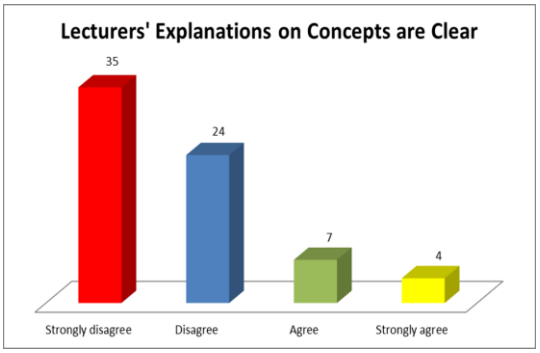
3.5 Exercises given are adequate



The bar graph shows the feedback from the respondents on whether the exercises given in learning Thermodynamics were adequate or not. The horizontal axis represents respondents' feedback and the vertical axis shows the number of respondents. The pink bar shows that 23 out of 70 respondents strongly disagreed that exercises given were adequate. While, the red bar shows 34 respondents which was the highest number of respondents, claimed that the exercises given were not adequate. The yellow bar shows 10 out of 70 respondents agreed that exercises given were adequate. Lastly, the blue bar shows only three out of 70 respondents said that exercises given in Thermodynamics were adequate. It can be concluded that the majority of the respondents admitted that exercises given by the

lecturers were not adequate. Students need more Thermodynamics exercises to improve themselves in the subject.

3.6 Lecturers' Explanation on Concepts are Clear



The bar graph shows the feedback from the respondents on whether the lecturers' explanations on concepts in learning Thermodynamics were clear or not. The horizontal axis represents feedback from the respondents and the vertical axis shows the number of respondents. The red bar shows half of the respondents 35 out of 70 respondents strongly disagreed that lecturers' explanations on concept were clear. While, the blue bar shows 24 out of 70 respondents disagreed that lecturers' explanations were clear. The green bar shows seven out of 70 respondents agreed that lecturers' explanations were clear. Lastly, the yellow bar shows only four out of 70 respondents strongly agreed that lecturers' explanations on concepts were clear. It can be concluded that the majority of the respondents commented that lecturers' explanation on concepts were not delivered clearly in class.

4.0 Conclusion

From the survey it was found out that there were several factors causing students of Mechanical Engineering to fail or perform poorly in the Thermodynamics course. 89% of the respondents admitted that

Thermodynamics was a tough subject among the other subjects. This is one of the reasons why many students repeated the subject every semester to pass the subject. Furthermore, 18% of the respondents admitted they had inadequate preparation in Thermodynamics subject. This resulted in not being able to catch up during the lessons in Thermodynamics. The majority of the respondents also claimed that there were lots of formulas and calculations in the subject. The formulas and calculations had to be memorized and hence made the subject very challenging.

5.0 Recommendations

Due to the importance of the Thermodynamics course among Mechanical Engineering students, there are a few recommendations or suggestions to improve the achievements in examinations.

Students need to do adequate preparation before class starts. For example, students can study the new sub topics before entering the class. Other than that, students can highlight some words that they do not understand and when in the class students can ask their lecturers to get a clear explanation. This can help students to improve their knowledge in Thermodynamics. Secondly, as the subject involves a lot of formulas and calculations, student need to work hard in grasping the formulas and calculations. Students taking this subject need to memorize the formulas to answer examination questions. For example, students can make pocket notes that can be easily carried everywhere for easy reference. Besides, the students can also hold group discussions. For example, in small groups of four or five students can discuss, solve problems in difficult sub topics such as calculation work in turbine, nozzle and others. Students also can exchange notes or ideas and help each other in understanding difficult concepts, formulas and calculation in the subject. Mentor mentee activities also can be carried out among students. The students who have better

performance in the subject can be mentors and help the students who do not do well. The mentors can facilitate, assist and coach their mentees to help them get better grades. On the other hand, lecturers can have extra classes for the students who are poor in the Thermodynamics subject. For example, lecturers can monitor students' performance closely. Besides, lecturers also can plan and carry out activities to attract the students who have less interest in the subject. For example, if the students pass their tests or show good achievement lecturers can reward them.

Reference

1. Smith, J.M ,Van Ness H.C, Abbott M.M, (2005) **Thermodynamics,** Hill Education, Oxford.