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Achieving Academic Excellence at the Defence University: No Challenges Are a Real Challenge?

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ABSTRACT

After 11 years of inception, the National Defence University of Malaysia (NDUM) has produced about 3,000 graduates inclusive of military cadets and civilians. A very small number indeed, given its status as a boutique university. The questions addressed in this paper are twofold. First, how do the students perceive their learning environment, and second, what are the biggest challenges for the students to excel academically. These questions arise from the disturbing trends in the number of students who are not able to perform in their examinations as well as their behaviours illustrated during classroom learning. Therefore, this paper examines the challenges that are faced by the Defence University students and ultimately, outlines two (2) suggestions for more effective teaching and learning for the university. This paper adopts a quantitative approach to research where the data are obtained from a survey conducted on the students. The quantitative data are then analysed using the Statistical Packages for Social Sciences (SPSS) Version 24. Preliminary findings suggest that students are mostly positive about their learning environment; nonetheless, there are two (2) aspects that must be further investigated and addressed immediately to ensure more engaged and meaningful learning at the NDUM.

Introduction

After 11 years of inception, the National Defence University of Malaysia (NDUM) has produced about 3,000 graduates inclusive of military cadets and civilians (*The NDUM Annual Report Book*, 2017). A very small number indeed, given its status as a boutique university. The questions addressed in this paper are twofold. First, how do the students perceive their learning environment, and second, what are the biggest challenges for the students to excel academically. Based on the researchers' personal experience and observations, these questions arise from the disturbing trends in the number of students who are not able to perform in their examinations as well as their behaviours illustrated during classroom learning.

This study embarks on the following objectives,

a. To identify the learning challenges faced by the students
b. To investigate the root problems to all learning challenges at the Defence University

Therefore, this paper examines the challenges that are faced by the Defence University students and ultimately, outlines two (2) suggestions for more effective teaching and learning for the university. The assumption of this paper is the teaching and learning environment at the NDUM has not provided a conducive atmosphere for academic excellence. Three (3) research questions emerge from this assumption, including,

a. What are the main learning challenges faced by the students?
b. What are the root causes for these challenges?
c. How best to achieve academic excellence at the Defence University?

This paper has five (5) sections and begins with this introduction. It is then followed by the second section on selected literature review focusing on academic excellence and the use of technology for teaching and learning. The third section explains the methodology adopted in this paper, and the fourth section analyses and discusses the data gathered. The last section offers suggestions for consideration and closes the paper.

Selected Literature

This section is divided into two (2), academic excellence and technology use for achieving academic excellence. These two (2) are critical in understanding why the NDUM needs to have a new teaching and learning model for the students.

i. Academic Excellence

What does it mean by academic excellence? How can academic excellence be measured? What standard is being used when debating over academic excellence? These questions are significant when investigating students' academic excellence. The definition relies on many factors. According to Brusoni et al. (2014), a classic description of excellence refers to "the fulfilment of a certain standard," which could be interpreted as "fitness for purpose." This suggests that the institution would have to measure the performance of several facets, including students' achievement, staff involvement and the likes, according to pre-determined sets of standard. Nadaf and Siddiqui (2016) argued that nowadays these attempts to achieve academic excellence in higher learning almost exclusively focus on research and innovation activities, rather than on learning and teaching.

For the NDUM, the underlying challenge is to identify, and then arrest the problems that hinder the students from learning effectively and achieving excellence in their academic quest. Nonetheless, whether the students are facing learning challenges or whether there are other factors that stop them from performing better, it is high time that a thorough investigation is conducted to understand and assess the learning environment and experience of the students.

According to Strange and Banning (2015), there are at least three (3) critical success factors for academic excellence: promoting inclusion and safety; encouraging participation and engagement; and building communities of learning. It is important that students feel that they belong to the learning environment because this allows them to enjoy and contribute during their learning. At the same time, active and meaningful engagement allows the students to think and relate contexts to meanings. Further, learning does not only occur in a classroom setting. In fact, learning outside of the classrooms gives students the chance to connect and collaborate with people around them.

In addition, Daggett et al. (2005) opined that by incorporating more rigorous and relevant instruction in classrooms, immediate results in students' enthusiasm to learn is seen. When students are engaged in the learning process, real achievement takes place, and their chances to excel at what they do also increase. Learning can take place in three ways (Bower & Hilgard, 1981).

The first way is learning by direct exposure to the events themselves. Second is learning things by watching others experience the events, and third is learning through language, either by being told directly or by reading. Combining these three (3) ways may lead to academic excellence.

ii. Technology Use for Achieving Academic Excellence

Many policy papers on teaching and learning today give emphasis on the use of technology for classroom teaching and learning. For the European nations, scholars argue that in order for higher education to be modernised and reformed, incorporating digital technology is a must in lieu with the dynamics of technology itself. *Report to the European Commission on New Modes of Learning and Teaching in Higher Education* (2014) has outlined solutions to address challenges faced by members of the European Union, including the use of technology to facilitate teaching and achieve academic potential. In addition, the United States through its *Reimagining the Role of Technology in Higher Education* (2017) report has put emphasis on how technology could empower students' learning, facilitate teaching and enable successful assessments.

Similarly, Malaysia too has embarked on ensuring that technology becomes an enabler for teaching and learning in higher institutions for almost a decade ago. First, the launch of the National Higher Education Strategic Plan in 2007, which has outlined e-learning as one of its Critical Agenda Projects (CAPs). This suggests that all tertiary education providers must equip their institutions with some forms of online teaching and learning. Second, this initiative was further strengthened by the launch of the National e-Learning Policy in April 2011. Again, the emphasis is given by the Ministry of Education, Malaysia (Higher Education) for all higher learning institutions to incorporate the use of technology in teaching and learning. Third, the launch of Malaysia Education Blueprint (Higher Education) on 7th April 2015 has also highlighted the importance of digital technologies in teaching and learning through one of its 10 shifts; Shift 9 Globalised Online Learning promotes more quality digital content and an aggressive push towards making Malaysia a renowned higher education hub (*Malaysia Education Blueprint (Higher Education)*, 2015).

Notwithstanding these written policies, the main question that must be answered is whether these digital technologies have helped students to achieve academic excellence? Various teaching approaches have been implemented including blended or hybrid learning, where face-to-face sessions complement the use of technology for teaching and learning, as well as Massive Open Online Courses (MOOCs), where students are fully engaged online. Saxinean (2012) argued that whilst academic excellence requires more than technology, massive use of it opens up new opportunities for improving teaching and learning outcomes. This is because, according to Saxinean too, "Internet-based tools enable regular, precise, and personalised feedback to students and instructors that is difficult to achieve offline."

Natow et al. (2017) found that there is evidence of effectiveness of technology for improving educational outcomes when a number of organisations taking part in their study suggested that educational outcomes are largely assisted by technology today. It is argued that the use of technology for teaching and learning is of primary importance. There are two (2) basic reasons for this. First, the students are familiar with technology and how to utilise it since before they embark on tertiary education. Second, the teaching standards will improve and will be effective since both students and academics have a common understanding that technology becomes the enabler to support teaching and learning (Alfahad, 2012).

Despite these positive impacts of using technology for classroom teaching and learning, it can also be a disruptive innovation in ways that are not planned. A survey by Economist Intelligence Unit published in 2008 reported that respondents comment that pervasive multi-tasking between laptop, smartphone and other technologies in classes often distracts students. In one case at the United States Military Academy, West Point, Lieutenant Colonel Greg Conti, from the Information Technology Operations Centre, put forth that "it is impossible to sit someone in front of the World Wide Web and expect them not to use it. We, as faculty, teachers and administrators have to recognise that if we're going to use technology in the classroom, we must find additional ways to keep content meaningful, even if it comes down to the simple task of

requesting computer monitors down during the instructional period and back up during the hands-on portion of class" (*The Future of Higher Education: How Technology Will Shape Learning*, 2008).

In finding the best solutions to help students learn, it is imperative that the purpose for academic excellence is identified. For the Defence University, academic excellence means that the students are able to complete and pass all courses at least at the grade of B and above. Despite this grade, the overarching needs of the students to learn and their ability to apply relevant knowledge in the workforce are more important than the grade itself. For the Defence University, perhaps, this is academic excellence!

Methodology

This paper adopts a quantitative approach to research where the data are obtained from a survey conducted on the students. The quantitative data are then analysed using the Statistical Packages for Social Sciences (SPSS) Version 24. Items for the survey are adopted from previous research on student learning and best practices for undergraduate teaching and learning (Pace & Kuh, 1998; *What Can Kids Do*, 2004). Data gathered from the survey are analysed for descriptive statistics and analysis only, which include using frequency, standard deviation and mean.

The survey has five (5) sections and uses Google Form. It was distributed online (can be accessed at https://rebrand.ly/academicexcellence and all the NDUM students were invited to participate in the survey (voluntary sampling). It was opened from 18th December 2017 and closed on 22nd February 2018. The total number of student population of the NDUM is roughly about 3,200 (excluding postgraduate students), and a total of 825 (26%) students responded to the survey, ranging from Foundation, Diploma and Degree students. Members of the research team helped too to promote this survey to students in their respective faculties and academic centres.

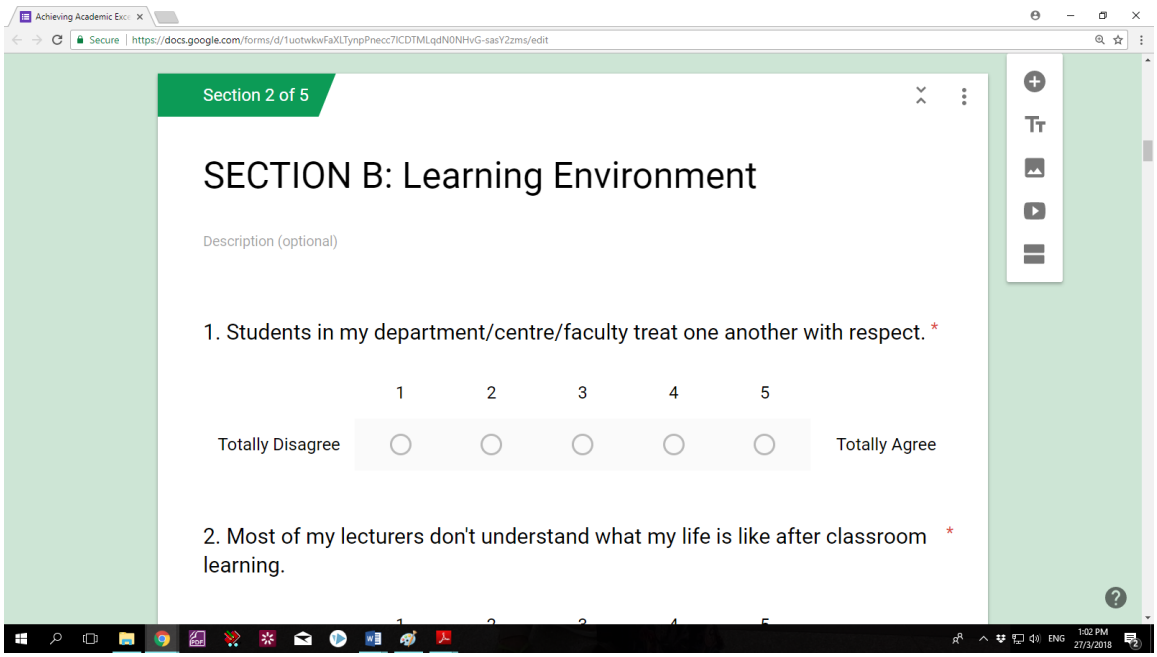

Fig. 1: The screenshot of the online survey

Sections 2 to 4 of the survey use a five-point likert scale (see Fig. 1). Scale 1 is for Totally Disagree and Scale 5 is for Totally Agree. Section 2 has 21 items on Learning Environment (LE); Section 3 has 15 items on Learning Attitudes (LA); and Section 4 has 17 items on Lecturers' Skills and Personality (LS). Section 1 reports on students' demographic data, and Section 5 seeks students' thoughts and opinions about their learning experience in general.

Results and Discussion

This section starts with demographic information of the data gathered from the survey, followed by analyses and discussions of the data using the research questions posed earlier.

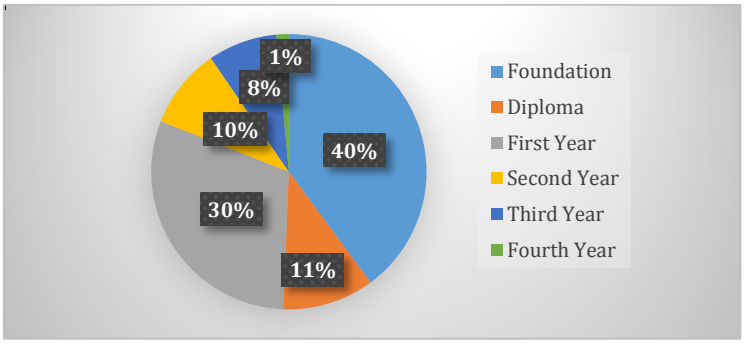

Fig. 2: The percentage of respondents according to year of studies

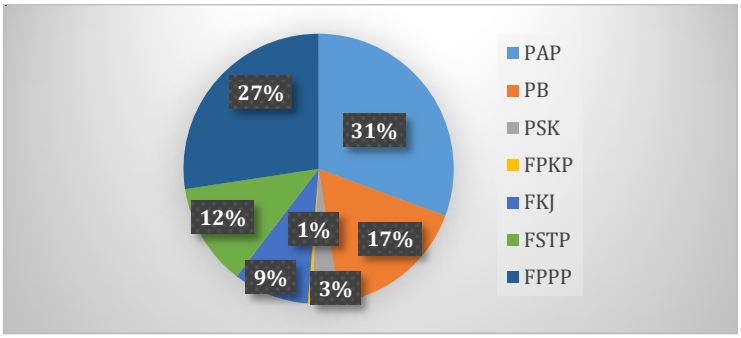

Fig. 3: The percentage of respondents according to faculties/academic centres

Based on Fig. 2 and Fig. 3, it is evident that the majority of respondents were from the Foundation students, and they were under the Centre for Foundation Studies (PAP). From Fig. 2, it can be conclusively claimed that the senior the respondents were, the lesser number of participation in the survey can be seen. There were only 12 respondents from the final year (1%), 67 respondents from the third year (8%) and 78 respondents from the second year (10%). This is perhaps due to the fact that senior year students are *busier* with academic works. Meanwhile, Fig. 3 illustrates the number of respondents from all faculties and academic centres at the NDUM. It must be emphasised that only the Language Centre (PB) has a full participation from all its students, which amount to 139 (17%). The rest of the faculties and academic centres have roughly about 8 to 10% respondents of their total students' population (except for the Faculty of Medicine and Defence Health, which only had 4 students responding.

The main sections of the survey consisted of three (3) parts as mentioned before. In Table 1, only six (6) items were chosen from LE and seven (7) items from both LA and LS respectively. These items are deemed important to answer the three (3) research questions of the paper. What can be discerned from the data can be further analysed by answering the research questions.

i. Research Question 1 – What are the main learning challenges faced by the students?

Based on Table 1, it appears that there are no immediate challenges faced by the respondents. Most respondents agreed that the learning environment supports their learning process. The item *LE1 Students in my university treat one another with respect* was agreed by 77.1% of the respondents, whilst 20% respondents were not sure (standard deviation=.795; mean=4.04). This suggests that there is *no* physical and emotional threat to the students, and thus allowing them to study in a safe environment. Further, 62.7% of the respondents agreed on the item *LE21 Students are encouraged to say what they think* and 28.7% respondents chose 'Not Sure' (standard deviation=.977; mean=3.71). The researchers argue that this illustrates students' confidence to share their

thoughts during classroom learning, which ultimately leads to a better intellectual development for the students.

At the same time, the respondents are adamant that their classes are not easy; 69.5% of the respondents claimed that their classes are challenging (the item *LE10*; standard deviation=0.838; mean=3.92). This proves that learning challenges for the Defence University students come from the classes in general; external factors rather than internal factors. Despite this, the respondents admitted that most of the educators are enthusiastic about teaching and share this with the students (the item *LE12*; standard deviation=0.762; mean 3.96). Therefore, it can be conclusively summed up that the learning environment is not a challenge at the Defence University.

The majority of the respondents agreed that they want to score good grades in their studies. The item *LA4 I want to get good grades on tests, quizzes, assignments and projects* was chosen favourably by 91.4% of the respondents (standard deviation=.649; mean=4.60). Again, what this illustrates is the fact that students *appear* to not face any learning challenges at the NDUM, and that they are fully aware of their responsibilities as students of higher learning. The attitudes of the respondents too are positive in terms of their learning expectations. They are always ready for courses (66.8% respondents favoured the item *LA1*; standard deviation=.781; mean=3.80), and they pay close attention during classroom learning (68.8% respondents agreed to *LA2*; standard deviation=.749; mean=3.86). What these figures suggest is obvious; the students are ready to take charge of their own learning, and there are no challenges that cannot be braved.

Table 1: Data for selected items (in percentage)

	Original numbers on the survey	Items	Agree/ Totally Agree	Not Sure	Standard Deviation	Mean
1	LE1	Students in my university treat one another with respect.	77.1	20	.795	4.04
2	LE2	Most of my lecturers don't understand what my life is like after classroom learning.	28.4	40.5	1.048	2.95
3	LE10	Classes in my university are challenging.	69.5	27.3	.838	3.92
4	LE12	Most of my lecturers are enthusiastic about teaching and communicate this to students.	74.9	22.9	.762	3.96
5	LE17	Students in my university help one another even if they are not friends.	65.7	27	.911	3.80
6	LE21	Students are encouraged to say what they think.	62.7	28.7	.977	3.71
7	LA1	I make myself prepared for all courses.	66.8	29.7	.781	3.80
8	LA2	I listen attentively during classroom learning.	68.8	29	.749	3.86
9	LA3	I actively participate in the discussion, answering exercises and/or clarifying things I did not understand.	64.8	32	.783	3.79
10	LA4	I want to get good grades on tests, quizzes, assignments and projects.	91.4	8.4	.649	4.60
11	LA5	I get frustrated when the discussion is interrupted or the teacher is absent.	50.8	39.9	.915	3.53
12	LA6	I do my assignments regularly.	74.8	22.7	.790	398
13	LA15	I have a specific place of study in my university that I keep clean and orderly.	67.3	27.3	.918	3.86
14	LS1	Have a good relationship with the students and other lecturers.	80.8	16.7	.812	4.16
15	LS5	Are open to suggestions and opinions and are worthy of praise.	80.6	17.3	.797	4.13
16	LS6	Explain the objectives of the lesson clearly at the start of each class.	79.2	18.9	.809	4.12
17	LS9	Are updated with present trends, relevant course materials.	79.4	19.6	.765	4.13
18	LS10	Use various strategies, teaching aids/devices	74.3	23.2	.812	4.03

	Original numbers on the survey	Items	Agree/ Totally Agree	Not Sure	Standard Deviation	Mean
		and techniques during classroom learning.				
19	LS16	Use flipped classroom approach i.e. only activities and discussions for classroom learning; lectures and reading are uploaded and accessed online.	72.3	24.1	.858	3.98
20	LS17	Use fieldtrip as one learning activity and assessment.	58.8	25.2	1.191	3.60

The respondents claimed that their lecturers are accommodating during classroom learning. This can be seen in the selected items shown in Table 1. In terms of teaching strategies, 74.3% of the respondents agreed that their lecturers use various strategies, teaching aids/devices and techniques during classroom learning (*LS10*; standard deviation=.812; mean=4.03). Despite this encouraging response, only 58.8% of the respondents agreed that their lecturers use fieldtrip as one of the learning strategies (25.2% was not sure on this; standard deviation=1.191; mean=3.60). What can be discerned from this is, *perhaps* one demand of the 21st century students is to explore the real world through fieldtrips arranged by the educators to complement classroom learning.

In short, there is no obvious evidence that students at the NDUM are facing learning challenges, either from the learning environment, their attitudes or lecturers' skills and personalities. Most respondents gave favourable responses to the items in the survey when the items are positive in nature. The researchers opine that since 70% of the respondents were the Foundation and First year students (see Figure 2), their levels of study *may* not require hard work and complex assessments. As such, the findings of the survey point to the *non-existence* of learning challenges at the NDUM.

ii. Research Question 2 – What are the root causes for these challenges?

Based on the previous research question, it appears that there are no *real* learning challenges faced by the students at the NDUM. Therefore, it is quite impossible to answer this second research question. Nonetheless, the item *LA5 I get frustrated when discussion is interrupted or the teacher is absent* received a perplexing response. On one hand, 50.8% of the respondents agreed on this item, which suggests that they do not want to be 'disturbed' whilst learning, or it may suggest that they value their face-to-face sessions with the educators. On the other, 39.9% respondents were hesitant of this item. Statistically, the standard deviation for this item is .915 with a mean of 3.53.

For the item *LE2 Most of my lecturers don't understand what my life is like after classroom learning*, the researchers concur with the results of the survey simply because about 75% of the lecturers at the NDUM are civilians who have never gone through military training and life. What the students go through at the NDUM, despite being civilian students is a residential campus surrounded with strict rules and full of discipline. 28.4% of the respondents agreed that their lecturers have no ideas of what happened after face-to-face sessions end. Surprisingly, 40.5% of the respondents were not certain of how to respond to this item (standard deviation=1.048; mean=2.95).

In short, it cannot be conclusively identified what the root causes for learning challenges at the NDUM based on the quantitative data gathered from 825 respondents. The researchers will have to investigate deeper using semi structured interviews with selected respondents in the immediate future in order to validate this finding.

iii. Research Question 3 – How best to achieve academic excellence at the Defence University?

All items in Section 4 of the survey were mostly favoured by the respondents. The respondents viewed their lecturers as experts in their areas and are open for discussions. The items *LS5 Are open to suggestions and opinions and are worthy of praise* and *LS9 Are updated with present trends,*

relevant course materials were both chosen favourably by 80.6% and 79.4% respondents respectively. The former has a standard deviation of .797 and a mean of 4.13, which suggests that most of the respondents were synonymous in giving their responses. The latter has a similar statistical description, with a standard deviation of .765 and a mean of 4.13.

The researchers argue that the teaching and learning processes at the NDUM must be supported by various factors, including learning environment, learning attitudes and lecturers' skills and personality. As the learning environment provides a conducive atmosphere for students to focus on their studies, there is no excuse for them not to excel academically. The same argument applies for students' learning attitudes. As they contemplate to achieve success, they must have proper planning and management in order to ensure that they are able to get good grades. One of them is by having a specific place to study as illustrated in Table 1. The item *LA15 I have a specific place of study in my university that I keep clean and orderly* was chosen favourably by 67.3% of the respondents (standard deviation=.918; mean=3.86). Despite receiving a 'Not Sure' response by 27.3% of the respondents, this finding proves that students at the Defence University are aware of their responsibilities to study.

The respondents also agreed that flipped classroom as a learning approach was used by the educators at the NDUM (72.3% of the respondents chose favourably with a standard deviation and mean of .858 and 3.98 respectively). This has a massive impact on the best way to achieve academic excellence. Students nowadays are more aggressive and active in their learning since they are more exposed to various aspects of life through the internet. They may know more than the educators and would love to challenge other people in terms of their knowledge. Thus, sticking to one approach to learning, for example, lectures, may not help since students will just be seating quietly and listening to the lectures. What they need, according to scholars of the 21st century education, are constant use of technology for social learning and networking (Boholano, 2017), learning by doing and collaborating (Sole, 2015) as well as inclusion of their needs to learn and construct new ideas (*Characteristics of 21st Century Learners and the Challenges They Cause Teachers*, 2016).

As the researchers are looking at the quantitative data, they are also formulating the best approach in order to lead students to achieve academic excellence. As a preliminary model, it is best if a hybrid learning model is adopted at the Defence University. Particularly one of its model is flipped classroom where students are required to be ready by reading/watching/listening to online materials designed and developed by their educators. Coming to the next class, students are ready to debate, challenge and discuss whatever that has been read/watched/listened to. This allows students to be more active, and this meaningful learning engagement can be achieved as students think and recreate meaning.

Suggestions and Conclusion

As part of a bigger research work on achieving academic excellence, two aspects must be further investigated in order to finalise what is the best teaching and learning model at the NDUM. First, qualitative data must be collected in order to verify the quantitative data. The researchers opine that the findings from the survey *may* not tell the whole situation at the NDUM. Thus, qualitative data would be able to support and clarify any loopholes in the current findings. Second, the qualitative data will have to include senior and junior year students. Only then the positive responses in the quantitative data can be claimed to be conclusive and representative of the learning environment, students' learning attitudes and lecturers' skills and personality at the Defence University.

To conclude, as identified earlier, academic achievement for the Defence University may mean that students are able to perform effectively once they join the workforce. For the purpose of this paper, however, the researchers would like to argue for factors that contribute to academic excellence at the NDUM. The results of the students are the outcome; nonetheless, the processes that the students go through are of the utmost importance. Looking at the current processes of teaching and learning, the respondents have validated that,

a. They are happy with the learning environment, and that they feel safe emotionally and physically;
b. They are serious about their academic achievement, and that they are aware of their responsibilities as students; and
c. They view their lecturers positively, and that they have good relationships with the lecturers so much so that they are able to voice out their opinions and concerns confidently.

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