

## EXPLORING STUDENT PERCEPTIONS OF ACADEMIC LEARNING ENVIRONMENTS AT A PRIVATE UNIVERSITY IN MALAYSIA

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### ABSTRACT

*The purpose of this study was to investigate the perception of students on educational environment of a private university based on five domains of the Dundee Ready Education Environment Measure (DREEM). A Survey questionnaire was administered randomly to 50% of the undergraduates with a population of 7500. 3029 sets of questionnaires were collected back for analysis. The questionnaire comprised 50 items as in DREEM and an additional 3 items on profiles and opinions of students about themselves undergoing the study at the university were included. Findings indicated that the students' perception of learning is satisfactorily active, stimulating, student-centred over teacher centred, could develop the competence and confidence of learners, well focused, prepared for life-long learning and learning objectives were clear as majority of respondents agreed positively on those items. Students also perceived positively on teachers related to teaching and learning in classes. Teachers were seen as knowledgeable, patient, having good communication skills, providing good feedback and constructive criticism. In relation to academic arena, majority of students could consistently follow the learning strategies (52.75%) and were confident to pass (66.01%). They also felt that they were well-prepared for their profession indicating knowledge and skills acquired at the university could match with the industrial needs and demands. Regarding atmosphere at the university, students generally strongly agreed that the atmosphere was very conducive for learning. As a whole, the students' perception on the five domains of services provided were satisfactory though much rooms needed to be improved particularly in providing higher levels of thinking skills as well as active participation of students in teaching and learning. Teachers should be more resourceful to provide positive criticism. A good support system should be provided for students who were stressful in studies. As majority of students felt that they were too tired and bored with courses they were pursuing, curricular of various programmes should be reviewed from time to time to make it more interesting while meeting industrial needs. By employing the DUNDEE item analysis, the overall results for the five domains showed that there were more positives than negatives for the 50 items. The overall aspect of education environment was considered to be satisfactory though not reaching excellence. However, only 35.8% of respondents would recommend their friends or relatives to study at the university compared to 32.2% of them who would not to, whereas 30.9% of them were unsure about it. The university should therefore put extra efforts to win over the confidence of students to recommend potential students to study at the university through upgrading of services.*

**Keywords:** Education Environment, Dundee Ready Education Environment Measure (DREEM), Academic learning Environment

### Introduction

In Malaysia, the increasing social demand for higher education as a result of the universalisation of secondary education has induced corporatisation (Lee, 1997) and privatisation. To meet this rising demand, the private sector is encouraged to play an important role in providing higher education. Since the 1980s, there has been a rapid growth of private education due to "excess demand" rather than "differentiated demand" (Lee, 1997). The former is caused by the limited number of places in public institutions which cannot meet an increasing demand for higher education, whereas the latter results from cultural heterogeneity reflected in differentiated tastes for the types of education that different groups prefer (James, 1994). Due to limited quota allocations in Malaysia, many qualified non-native students have to further their education in private colleges, to save the high costs of overseas education. Private colleges have also organised twinning- programmes with overseas universities.

From an efficiency standpoint also, the advocacy of privatisation of higher education in the mid 1990s was based upon the belief that the public sector is wasteful, inefficient and unproductive. On the other hand, the private sector was deemed to be efficient, effective, and responsive to the rapid changes that are needed in the modern world (Walford, 1990).

This study would employ the Dundee Ready Educational Environment Measure (DREEM) to assess the educational environment of a private university in Malaysia. According to Dent & Harden (2009), an optimal educational climate is an important factor for effective learning to occur particularly for delivering high quality medical education. Studies have widely used the DUNDEE over the past 15 years in medical and allied health sciences across places and educational settings in appraising institutional's education climate (Al-hazimi et al, 2004; Arzuman et al, 2010; Thomas et al, 2009; Said, et al, 2009). However, there has been no studies in Malaysia regarding the use of DUNDEE in other disciplines apart from the medical and Allied sciences. This study will therefore assess the perception of students on educational environment of a private university in non-medical and allied sciences disciplines. Hence, it would contribute to the knowledge in using the DUNDEE analysis to justify how a private university could provide quality services to the students who are not studying in medical and health allied disciplines.

Consequently, the main focus of this paper is to assess the students' perception on the services provided at the university based on five domains. These five domains were students' perception on learning, teachers, academic self - perception, atmosphere and social self- perception.

### Research Questions

The research questions are specified as follows.

- How is the students' perception of learning for a private university in Malaysia?
- How is the students' perception of teachers for a private university in Malaysia?
- How is the students' academic self- perception of a private university in Malaysia?
- How is the students' perception of atmosphere for a private university in Malaysia?
- How is the students' Social self - perception of a private university in Malaysia?

### Methodology and Research Design

The quantitative research methodology was employed to carry out research through questionnaire survey. The survey was carried out to obtain students' perception on the services provided at a private university in Malaysia with regards to five facets of educational environment enshrined at the Dundee Ready Education Environment Measure (DREEM). 7500 sets of questionnaires were randomly administered to 50% of student population through the heads of faculties, schools and centres.

All heads also attended a briefing and simulation of how to administer the questionnaires prior to administering the questionnaires to students. Finally, 3029 sets of questionnaires were collected for analysis. This sample of 3029 is more than sufficient to represent the population of 7,500 students studying at the private university Krejcie, R. V., & Morgan, D.W. (1970).

### The Questionnaire

DREEM comprises of 50 items that assess five domains. The first domain is the students' perception of learning which comprises 12 items with maximum score 48. The second domain is the students' perception of teachers which comprises 11 items with maximum score of 44. The third domain is the students' academic self- perception comprises of 8 items with maximum score of 32. The fourth domain being the students' perception of atmosphere comprises 12 items with maximum score of 48 and finally the fifth domain being the students' Social self – perception comprises 7 items with maximum score of 28. Each item is rated on a 5-point Likert scale from 0-4 where 0= strongly disagree, 1 = disagree, 2= unsure, 3= agree and 4 = strongly agree. There are nine negative items (items 14,18, 19, 27, 35, 45, 49, 58 and 60). The correction is made by reversing the scores

In this research, the questionnaire comprises of five constructs with 50 items and additional 12 items on profiles and opinions of students about themselves undergoing the study at the university were also added. The scores of 0 to 4 as adopted from the scoring of DREEM to indicate the perception of students related to the provisions of services, whereby 4 indicates strongly agree; 3 indicates agree; 2 indicates unsure and 0 for strongly disagree were employed.

### Concepts

The Dundee Ready Educational Measure (DREEM) is a culturally non-specific, generic instrument which was originally developed to analyse undergraduate educational environments in the health professions (Roff, S, et al, 1997). A recent review concluded that it was the most suitable such instrument (Miles Et al, 2012). Hence, DREEM has been found to be highly reliable in various settings. Institutions can identify shortcomings and formulate changes in curriculum with the help of DREEM (Zawawi, 2012).

According to Soemantri et al, (2010), DREEM was likely to be the most suitable instrument for measuring the educational environment in undergraduate medical institutions. This would lead to a further increase in the frequency with which the DREEM was used and its data were reported. This could enable the DREEM to be used more effectively and consistently across institutions. However, a study by Muhammad Saiful (2012) among a sample of Malaysian medical students did not support the construct validity of the DREEM inventory though it supported the reliability.

Literature also shows that there is little consensus on how DREEM has been both analysed and reported (Miles et al, 2012). Both parametric and non –parametric tests have been employed in comparing significant difference between subgroups of interest.

However, Miles et al (2012) suggest the results of the DREEM can be considered at three levels which are individual items, subscales and overall DREEM. The raw scores obtained for the items making up each of the five subscales are summed for each participant, and then the mean for this summed score would give subscale summary scores. The overall DREEM score is obtained by summing the summary scores of the subscales. By examining the mean score obtained across all participants for each item would identify specific strengths and weakness within the educational environment.

McAlear and Roff (2001) gave guidance as how to interpret scores at each of the three levels. Regarding individual items, those with a mean score of  $\geq 3.5$  are regarded as especially strong areas, items with a mean score of  $\leq 2.0$  need particular attention and items with mean scores between 2 and 3 are areas of the educational environment that could be improved. The developers, however, did not recommend as to how to analyse DREEM at any of the three levels in making comparisons between different groups of students or overtime within the same group of students.

### Analysis

The details of the analysis are shown in tabular forms in percentages (Table 2 – Table 7) and also in scores (Table 8) whereas Table 1 shows the profile distribution of respondents.

Table 1: Profile of Respondents in percentages

Variables n = 3029		Frequency (%)	Variables		Frequency (%)
1	<b><u>Gender</u></b>		6	<b><u>Ethnicity (for Malaysians only)</u></b>	
	Female	57.38		Chinese	41.50
	Male	41.94	Indians	12.50	
			Malay	23.00	
			Natives (Sabah and Sarawak)	3.50	
			Others	13.13	
2	<b><u>Programme</u></b>		7	<b><u>Sponsorship</u></b>	
	Ph.D / Doctoral Studies	0.94		Scholarship	5.88
	Masters	9.19		PTPTN	54.81
	Bachelor	43.69		Parental	29.81
	Diploma	29.75		Others	8.31
	Certificate	11.38			
3	<b><u>Clusters</u></b>		8	<b><u>Social Background</u></b>	
	Engineering, Built Environment & IT	12.50		Urban	76.19
	Health Care & Life Sciences	31.25		Rural	21.88
	Social Sciences & Humanities	50.00			
	Foundation Studies	6.25			
4	<b><u>Year of Studies</u></b>		9	<b><u>Parental Education Background</u></b>	
	Year 1	36.25		Father University graduate	14.56
	Year 2	33.75		Mother University graduate	5.56
	Year 3	23.88		Both parents University graduate	23.50
	Year 4	3.94		Neither parents University graduate	49.50
	Year 5	1.88			
5	<b><u>Citizenship</u></b>		10	<b><u>English Proficiency</u></b>	
	Malaysian	76.56		Excellent	17.19
	Non Malaysian	21.88	Good	33.44	
			Average	40.25	
			Poor	6.75	

			Very poor	1.75
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**Research Question 1: How is the students’ perception of learning at a private university in Malaysia?**

**Table 2: Students’ perception of learning**

	Students' Perception of Learning	A	B	C	D	E
		Strongly Agree (%)	Agree (%)	Unsure (%)	Disagree (%)	Strongly Disagree (%)
11	I am encouraged to participate in class	27.50	48.38	20.00	2.63	1.13
17	The teaching is often stimulating	9.88	47.06	31.19	8.81	2.38
23	The teaching is student-centered	8.56	42.69	30.88	14.81	2.56
26	The teaching is sufficiently concerned to develop my competence	10.56	48.88	31.06	6.94	1.94
30	The teaching is well focused	13.38	52.50	24.94	7.56	1.25
32	The teaching is sufficiently concerned to develop my confidence	10.50	49.13	29.13	8.94	1.88
34	The teaching time is put to good use	10.88	50.50	23.50	11.56	3.19
35	The teaching over- emphasized factual learning	7.38	34.50	39.25	15.13	3.25
48	I am clear about the learning objectives of the course	14.88	52.38	23.75	6.81	1.69
54	The teaching encourages me to be an active learner	12.19	48.19	27.38	9.75	2.06
57	Long term learning is emphasized over the short term	12.56	47.25	32.50	5.50	1.81
58	The teaching is too teacher-centered	6.56	21.75	32.81	30.75	7.56

Table 2 shows the students’ perception of learning is indicated in percentages for levels of agreement. As a whole the students’ perception of learning is satisfactorily active, stimulating, student-centred over teacher centred, could develop the competence and confidence of learners, well focused, prepared for life-long learning and learning objectives were clear as majority of respondents agree positively on those issues. The teaching has been efficiently been carried out as the time is put in good use with around 60% of respondents agree on the matter. This coincides with the scores of 30 regarding students’ perception on learning obtained from the DREEM questionnaire indicating that there is a more positive perception on learning (Table 8, page 8).

However, these facets of learning can still have rooms to be improved especially there tended to have quite a substantial percentage of students who were uncertain about items related to the perceptions of learning. Teachers should also not to be over-emphasized on factual learning as around 60% of respondents agree that teachers tend to over-emphasized on factual learning. Perhaps higher levels of Bloom’s Taxonomy should be adopted in the process of teaching and learning rather than the lower level of factual learning.

**Research Question 2: How is the students’ perception of teachers at a private university in Malaysia?**

**Table 3: Students’ Perception of Teachers**

NO.	Students' Perception of Teachers	A	B	C	D	E
		Strongly Agree	Agree (%)	Unsure (%)	Disagree (%)	Strongly Disagree

		(%)				(%)
12	The teachers are knowledgeable	30.81	50.19	14.88	3.06	0.69
16	The teachers are patient with students	20.69	47.69	21.06	7.56	2.25
18	The teachers ridicule the students	4.00	21.13	33.19	28.50	12.13
19	The teachers impose the ideas on students	12.88	44.94	25.94	12.31	3.06
28	The teachers have good communication skills	20.88	50.69	18.63	7.13	2.06
39	The teachers are good at providing feedback to students	15.25	49.81	21.13	10.25	2.94
42	The teachers provide constructive criticism here	10.31	43.94	33.63	9.19	2.63
47	The teachers give clear examples	16.00	53.25	20.56	7.69	2.00
49	The teachers get angry in class	11.38	25.63	23.88	25.75	13.31
50	The teachers are well prepared for their classes	21.56	51.75	17.88	6.75	1.50
60	The students irritate the teachers	8.88	23.31	29.19	22.25	15.13

Table 3 illustrates the students' perception of teachers. Students perceived positively on teachers related to teaching and learning in classes. Teachers are perceived as knowledgeable, patient, having good communication skills, providing good feedback and constructive criticism, giving clear examples while teaching and well prepared for their classes as majority of respondents agree on those matters. Teachers are not seen as not irritating and do not get angry in class or ridicule the students as indicated with lower percentages for levels of agree and strongly agree in items 18, 49 and 60. For Students' perception of teachers/lecturers, an average score of 27.11 of students' perception of teachers obtained from DREEM questionnaire indicates that teachers/lecturers are moving in the right direction in teaching and learning (Table 8, Page 8). However, teachers tend to impose the ideas on students indicating an authoritarian style of teaching which should be avoided. With quite a substantial percentage of uncertainty, there are rooms for teachers to improve themselves particularly on issues related to items 18 (the teachers ridicule the students) and 42 (the teachers provide constructive criticism).

**Research question 3: How is the students' academic self- perception a private university in Malaysia?**

Table 4: Students' Academic Self- Perception

NO.	Students' Academic Self- Perception	A	B	C	D	E
		Strongly Agree (%)	Agree (%)	Unsure (%)	Disagree (%)	Strongly Disagree (%)
15	Learning strategies which worked for me before continue to work for me now	10.25	42.50	33.50	9.31	3.69
20	I am confident about passing this year	30.88	35.13	28.44	3.38	2.06
31	I feel I am being well prepared for my profession	12.00	37.13	38.81	9.06	2.69
36	Last year's work has been a good preparation for this year's work	14.06	52.81	24.13	6.63	2.19
37	I am able to memorize all I need	6.06	25.25	31.56	24.69	12.13
41	I have learned a lot about empathy in my profession	13.44	49.75	28.50	6.13	1.94

51	My problem-solving skills are being well developed here	10.31	47.69	31.88	7.44	2.13
55	Much of what I have to learn seems relevant to a career in medicine	21.56	49.00	20.94	5.81	2.19

Table 4 demonstrates the students' academic self-perception. Overall, students perceived themselves positively in academic arena. Majority of students could consistently follow the learning strategies (52.75%) and are confident to pass (66.01%). They also feel that they are prepared for their profession (49.13%) indicating knowledge and skills acquired at the university could match with the industrial needs and demands. Majority of students also agreed that they had learned a lot about empathy in their profession, problem solving skills as well as knowledge and skills they acquired at the university which are relevant to careers, indicating a matching of curriculum with the industrial need and hence industry driven. For the students' academic self-perception, an average score of 20.42 obtained shows that students have feeling more on the positive side regarding their academic attainment at the private university (Table 8, Page 8).

**Research Question 4: How is the students' perception of atmosphere at a private university in Malaysia?**

Table 5: Students' Perception of Atmosphere

NO.	Students' Perception of Atmosphere	A	B	C	D	E
		Strongly Agree (%)	Agree (%)	Unsure (%)	Disagree (%)	Strongly Disagree (%)
21	The atmosphere is relaxed during classes	14.19	40.88	22.31	16.19	5.50
22	This school is well timetabled	5.75	22.44	18.50	27.44	25.50
27	Cheating is a problem in this school	21.56	22.31	30.06	15.38	10.38
33	The atmosphere is relaxed during lectures	11.06	48.31	23.50	12.88	3.81
40	There are opportunities for me to develop interpersonal skills	13.25	54.06	23.25	6.75	2.00
43	I feel comfortable in the class socially	17.94	54.94	17.38	7.25	2.19
44	The atmosphere is relaxed during seminars /tutorials	14.88	48.31	21.50	10.56	4.31
45	I find the experience disappointing	8.75	21.50	30.00	31.25	8.19
46	I am able to concentrate well	8.13	40.44	31.06	15.44	3.38
52	The enjoyment outweighs the stress of studying	7.63	53.38	34.69	17.19	5.13
53	The atmosphere motivates me as a learner	7.50	44.88	28.81	14.81	3.63
59	I feel able to ask the questions I want	20.38	50.50	17.69	8.44	2.56

Table 5 shows the students' perception of atmosphere at the private university. Generally, students like the atmosphere at the university as indicated with higher percentages of agreement for items 21, 33, 40, 43, 44, 46, 52, 53 and 59, and with lower percentages for levels of agreement for negative item 45. However, the time-tabling and cheating problems should be overcome. This validates on the student's perception of atmosphere (an average score of 28.56), indicating that the atmosphere at the university is towards a more positive than negative learning atmosphere

(Table 8, Page 8).

**Research Question 5: How is the students' Social self - perception of at a private university in Malaysia?**

Table 6: Student's Social Self-Perception

NO.	Students' Social Self-Perception	A	B	C	D	E
		Strongly Agree (%)	Agree (%)	Unsure (%)	Disagree (%)	Strongly Disagree (%)
13	There is a good support system for students who get stressed	8.44	19.81	35.31	19.88	15.88
14	I am too tired to enjoy this course	12.94	24.25	24.94	27.94	8.81
24	I am rarely bored on this course	7.50	25.63	26.38	30.19	9.50
25	I have good friends in the school	42.25	41.56	9.44	4.56	1.88
29	My social life is good	22.06	46.19	20.00	7.94	3.31
38	I seldom feel lonely	12.69	33.38	26.13	18.88	8.44
56	My accommodation is pleasant	14.25	37.25	26.44	11.50	9.56

Table 6 indicates that there are several issues on students' social self-perception needs to be taken care of. We should provide a good support system for students who are stressful in studies. A substantial percentage of students felt they were too tired (37.19%) and bored (33.13%) with the course they were purposing. Perhaps, the curricula of various programmes need to be reviewed from time to time to make it more interesting but yet related to industry demands. . An average score of 16.09 regarding the social self-perception shows that the university is just not too bad for social interaction of students (Table 8, Page 8).

Table 7: Miscellaneous

NO.	Miscellaneous	A	B	C	D	E
		Strongly Agree (%)	Agree (%)	Unsure (%)	Disagree (%)	Strongly Disagree (%)
61	I'm confident that I've enrolled in a very good University	9.50	30.63	37.88	13.25	8.50
62	I would recommend my friends to study at this University	8.31	27.50	30.88	16.56	15.63
63	I feel I'm a better person now compared to the time before I study in this University	14.50	36.88	28.38	10.50	7.13

Table 7 examines miscellaneous issues concerning the university. Around 40% of students were confident that they have enrolled in a very good university compared to 21.75% who disagree with the statement whereas a substantial percentage (37.88)of respondents were uncertain about it.For item 62, only 35.81% of respondents would recommend their friends to study at the private University compared to 32.19% of them who would not to whereas 30.88% of them were not sure about it. This implies that we need to put extra efforts to win over the confidence of students to recommend potential students to study at the university.

Table 8 in next page shows the scores of education environment based on faculties/schools/centres and as a whole. For overall results, the scores of 122.06 indicate that there are more positives than negative for the 60 items. For students' perception of learning the score of 30 indicates that there is a more positive perception on learning. For Students' perception of teachers/lecturers, an average score of 27.11of students' perception of teachers indicate that teachers/lecturers are moving in the right direction in teaching and learning. For the student academic self-perception, an average score of 20.42 shows that students have feeling more on the positive side regarding their academic attainment at the private university. On the student's perception of atmosphere, an average score of 28.56 indicates that the atmosphere at the university is towards a more positive than negative learning atmosphere. Finally, for the social self-perception, an average score of 16.09 shows the university is not too bad for social interaction of students.

Table 8: Educational Environment Survey Based on Faculties / Schools / Centres

Clusters	Faculty / School / Centre	Sample Size	Sample %	Overall results	Students' Perception of Learning	Students' Perception of Teachers	Students' Academic Self-Perception	Students' Perception of Atmosphere	Students' Social Self-Perception
Engineering, Built Environment & IT	SOEBE	293	9.67	120.57	29.88	27.95	19.46	27.59	15.69
	SoIT	240	7.92	108.22	25.00	23.89	18.99	25.94	14.40
Health Care & Life Sciences	FoM	42	1.39	122.40	31.70	25.40	20.70	29.80	14.90
	FoD	65	2.15	127.62	32.18	27.04	20.17	30.75	17.48
	FoP	121	3.99	110.61	27.83	24.00	18.40	24.97	15.41
	FooVS	119	3.93	119.27	29.61	28.38	19.29	26.57	15.42
	SoN	355	11.72	125.82	31.47	27.02	22.72	27.67	16.94
	AHS	196	6.47	126.79	31.51	28.75	22.35	28.63	15.55
Social Sciences & Humanities	FOBAM	179	5.91	113.51	27.58	24.48	19.72	25.82	15.91
	FoED	75	2.48	125.61	32.23	26.94	21.48	28.41	16.55
	SoCD	120	3.96	126.14	30.32	27.90	20.98	30.08	16.86
	SoCS	153	5.05	125.43	28.83	28.95	19.49	35.89	15.27
	SoHT	285	9.41	118.18	28.56	25.79	20.76	26.52	16.55
	ADP	186	6.14	116.33	28.59	27.04	19.11	26.29	15.30
	LC	106	3.50	140.12	35.26	30.25	22.80	33.33	18.48
	GSB	147	4.85	135.20	33.04	30.74	22.15	31.80	17.47
Foundation Studies	CFS	347	11.46	113.26	27.59	26.34	18.60	25.38	15.35
<b>AVERAGE</b>				<b>122.06</b>	<b>30.07</b>	<b>27.11</b>	<b>20.42</b>	<b>28.56</b>	<b>16.09</b>
<b>TOTAL</b>		3029							



## Conclusion

There is evidence that the educational environment which students encountered has an impact on satisfaction with the course of study, perceived well-being, aspirations and academic achievement ( Genn, 2001; Mayya & Roff, 2004). Hence, by employing the Dundee Ready Education Environment Measure (DREEM), the study indicates that the students' perception on the five facets of services provided were satisfactory though there are much rooms to be improved particularly on providing higher level of thinking skills in teaching and learning, not merely on factual learning.

The items were analysed using the indicators of scores as employed by the DREEM . The overall result of 122.06 shows that there are more positives than negatives of the 50 items employed. This suggests that there are areas within the program that the students perceived as positives, but also areas requiring attention. There is a more positive perception of learning, lecturers/teachers are moving in the right direction in teaching and learning, students tend to have feeling more positively on their academic attainment, and the atmosphere is moving towards a more positive than negative environment. Generally, students like the atmosphere at the private university and hence considered to be conducive. z Finally, the university is not too bad for social interaction. Thus, the overall aspect of education environment is considered to be satisfactory though not reaching excellence.

However, the authoritarian style of teaching should be replaced with a more active participation of students in teaching and learning. Teachers should motivate and provide constructive criticism too. Majority of students perceived themselves positively in academic arena and prepared for the profession. Hence, knowledge and skills imparted could be applied in their career potentially. However, the time-tabling and cheating problems should not be overlooked. Several issues on students' social self-perception need to be taken care of. A good support system should be provided for students who get stressed. Curricula of various programmes should be reviewed from time to time to make it more interesting but yet to meet industry needs as majority of students perceived that they felt too tired and bored with the course they were pursuing.

We should also be aware that only 35.81% of respondents would recommend their friends or relatives to study at the university compared to 32.19% of them who would not to, whereas 30.88% of them were unsure about it. This means that we should put extra efforts to win over the confidence of students to recommend potential students to study at the university through upgrading our services particularly on areas as suggested.

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Overall (0-50 = Very poor, 51- 100 = Plenty of problems, 101 – 150 = More positive than negative, 151 – 200 = Excellent); Student perception of learning ( 0-12 = Very poor, 13-24 = Teaching is viewed negatively, 25 -36 = A more positive perception, 37 – 48 = Teaching highly thought of); Student Perception of Teachers ( 0-11 = Abysmal, 12 -22 = In need of some retraining, 23-33 =moving in the right direction, 34-44 = Model teachers); Students' academic self-perception ( 0-8 = Feeling of total failure, 9-16 = Many negative aspects, Feeling more on the positive side, 25-32 = Confident); Students' Perception of atmosphere ( 0-12 = A terrible environment, 13-24 = There are many issues which need changing, 25-36 = A more positive atmosphere, 37 -48 = A good feeling overall); Students' social self-perception ( 0-7 = Miserable, 8-14 = Not a nice place, 15-21 = Not too bad, 22-28 = Very good socially)

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