

# Student Perceptions of the Environment of Universiti Sains Malaysia

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Tujuan kajian ini ialah untuk mengkaji suasana Universiti Sains Malaysia melalui laporan-laporan penuntut yang berdasarkan the College and University Environmental Scale (CUES). Sampel yang digunakan adalah satu sampel terstratum yang terdiri dari 100 penuntut Universiti Sains Malaysia yang telah berada di Universiti Sains Malaysia lebih dari setahun. Hasil kajian ini menunjukkan bahawa sifat utama suasana Universiti Sains Malaysia merupakan ketegasannya tentang Propriety. Ketegasan yang sederhana didapati tentang Scholarship dan Practicality. Universiti Sains Malaysia nampaknya memberi kurang perhatian kepada dimensi-dimensi Community dan Awareness.

## Introduction

A university is many things to the students – courses, lecturers, tests, rules and regulations, extracurricular activities, facilities, attitudes and expectations – and these constitute the environment or atmosphere of the university. The environment of a university is seldom studied in any systematic way. One of the reasons for this is the difficulty in identifying and measuring the important elements or dimensions of the environment.

There are, however, a number of approaches that have been used to measure the environment of an institution. These have ranged from studying the demographic features of an institution (Astin, 1962), the characteristics of students which make up an institution (Astin & Holland, 1961), and the perceptions of students of the environment (Pace & Stern, 1958; Pace, 1960). The approach used in this study is that developed by Pace (1960) and may be termed the "collective perception approach." In this approach, the environment, in the psychological sense, is what is perceived to be by the people who live in it. Although student perceptions of the university may not correspond to reality fully, it is this perceived reality that will have the greatest influence on the students' behaviour and response. In other words, what students think is true is what matters. The instrument, College and University Environment Scale (CUES) developed by Pace (1963), is based on the above rationale. It samples student perceptions of the facilities of the university, its rules and regulations, curricula, instruction and examinations, student life, extracurricular organization and so on. It is from these student perceptions that the environment of the university is defined.

## Purpose of the Study

The purpose of this study is to determine, through student reports based on the CUES, the environment of Universiti Sains Malaysia (USM). The instrument CUES<sup>1</sup> was developed by Robert Pace (1963) and, in its second edition (1969), consisted of 100 items measuring five scales or dimensions, namely, Scholarship, Awareness, Community, Propriety, and Practicality. The specific purpose of the study, therefore, is to describe the environment of USM along these five dimensions and to relate the environment of USM to that of similar institutions in the United States.

## Method

### Sample

A random stratified sample of 100 students was selected from the third and final year students in USM in 1975. First year and off-campus students were excluded from this sample because they were considered less familiar with the university environment. Second year students were also excluded from the sample, for these students, for the most part of their first and second years, used the facilities and attended lectures in the Malayan Teachers' College, which is some distance away from the USM campus. Thus it was considered that only third and final year students would know the USM environment well enough to be used in the sample.

Thus, this sample of 100 students who had experienced the environment for at least a year were therefore likely to make valid perceptions of various aspects of the University. The stratification was based on course taken and year of study. This was considered necessary to provide a representative sample for the study. The response rate was generally very good and exceeded 90 per cent. The questionnaire was administered in English and the motivation of students on this rather long questionnaire (100 items) was generally good.

### Instrument

The instrument used in this study is the College and University Environment Scales (CUES), second edition. The CUES is used to define the environment or intellectual-social-cultural atmosphere of the university through student perceptions of a number of aspects of university life — rules and regulations, staff, curricula, teaching and examinations, student life, extracurricular organization. It contains 100 statements and students are asked to indicate for each statement, whether it is true or false of the institution. A student would endorse the statement as true if he thinks it is generally characteristic of the institution, or a condition that exists, or an event that occurs or which might occur, or is the way most people feel or act.

The 100 items can be grouped to measure five scales of 20 items each. The first scale is Scholarship and this describes an environment characterized by intellectuality and scholastic discipline where the emphasis is on high academic achievement, scholarship, the pursuit of knowledge and theories. The second scale describes an environment which provides opportunities for students to find personal, poetic and political meaning. The emphasis given is on awareness of self, of society, of aesthetic stimuli, and the related encouragement of questioning, dissent, a tolerance of non-conformity and personal expressiveness. This second scale is termed Awareness. The third scale, Community, describes a campus that is friendly, cohesive, group-oriented, and where staff members know the students and are interested in their problems. Similarly, student life is characterized by togetherness and sharing rather than by privacy and cool detachment. Propriety, the fourth scale, describes an environment where politeness, considerable caution and thoughtfulness are dominant. The environment is therefore mannerly, considerate, proper and conventional with an absence of assertive, argumentative, and risk-taking activities. The fifth and final scale is Practicality. The items in this scale measure an environment characterized by enterprise, organization, material benefits, and social activities. For example, a kind of orderly supervision is evident in the administration and the classwork and it pays to know how to operate in the system by knowing the right people, being in the right clubs, respecting one's superiors and so on.

A unique feature of the CUES is its scoring procedure which takes into account the consensus of two-to-one or greater among the respondents. The rationale is that if students agree two for one or better, sometimes referred to as the 66+/33-method, that a statement is not true, that fact identifies a characteristic of the environment. Similarly, if students agree by an equally high level of consensus that a particular statement is true, then that fact indicates a dominant characteristic of the environment. Thus if half the students agree and half disagree with the statement, then under this scoring system the statement cannot be used to define what is characteristic (dominant) of the institution. Only items where there is consensus based on this 66+/33-method contribute to the scale score. Consensus on an item can be positive (R, in the keyed direction) or negative (W,

not in the keyed direction). A score for the scale is then obtained through the difference between R and W. A constant of 20 is added to this difference to remove the possibility of negative scores. Thus, for each scale, the score can range from a minimum of 0 to a maximum of 40.

## Results

Table I summarizes the raw scores obtained for each of the five scales together with the corresponding percentile ranks obtained from the manual. Thus the figures in the table give an indication of the environment of Universiti Sains Malaysia as perceived by its students in 1975. The results presented in the table indicate a score of 24 for the Scholarship Scale. To give some meaning to this score, reference was made to the relative position of USM among the 100 institu-

TABLE I

Scale Scores and Percentiles: Universiti Sains Malaysia

Scale	Raw Score	Percentile
Scholarship	24	50
Awareness	14	26
Community	15	15
Propriety	21	75
Practicality	18	40

tions which constituted the norm group. These 100 institutions were chosen to reflect a broad section of American higher education institutions and took into consideration geographical location, size, public or private, and categories of institutions. Further details of the selection of this norm group are given in the CUES technical manual (Pace, 1969, p.14-27). On the basis of this normative group of 100 institutions a score of 24 or less is attained by 50% of the institutions. In this way one could say that USM score is relatively average. The environment of USM, as perceived by the sample, tends to give relatively limited emphasis to two dimensions or scales, that is, Awareness and Community. The score of 14 or less for the scale Awareness is found in 26% of the 100 institutions constituting the norm group while the score of 15 or less for the scale Community is found in 15% of them. With respect to Propriety, the USM score of 21 puts it in the 75th percentile. This means that 75 per cent of the 100 institutions have scores below this. Thus we could say that USM emphasizes this particular aspect of the environment. The Practicality score of 18 puts USM in the 40th percentile. In summing up this part of the analysis, it seems that the dominant feature of the USM environment is on the dimension of Propriety with moderate emphasis on the Scholarship and Practicality dimensions. On the other hand, little emphasis is found in the USM on the Community and Awareness aspects of its environment. A more detailed analysis is provided in the next section to give a better description of the environment of USM.

This second aspect of the analysis will discuss the statements on which there is high consensus among the students and thus contribute to the scale score. Only a limited sample of such statements for each scale can be presented and the main purpose of this analysis is to provide a more detailed description of the USM environment. In general only statements which have been answered positively or in the keyed direction are presented to illustrate the particular scale. Occasionally statements which are answered negatively are used and these will be clearly indicated in the discussion.

As mentioned earlier, one of the dominant features of USM is the emphasis given to *Propriety*. In order to provide a better understanding of the implications of this finding, student responses to three statements in this scale will be discussed.

1. Students occasionally plot some sort of escapade or rebellion – 68% disagreed.
2. Students rarely get drunk and disorderly – 81% agreed.
3. Most students show a great deal of caution and self-control in their behaviour – 78% agreed.

These statements show that students tend to be orderly and in control of themselves and relatively more so than their counterparts in institutions in the United States.

*Scholarship* and *Practicality* tend to be given moderate emphasis in USM and in trying to define these scales a number of typical statements will be presented. The illustrative statements and the responses of students to them are given below for the scale Scholarship.

1. Most courses require intensive study and preparation out of lectures/practicals/tutorials – 80% agreed.
2. Students set high standards of achievement for themselves – 71% agreed.
3. Careful reasoning and clear logic are valued most highly in grading student papers, reports or discussions – 75% agreed.
4. There is very little studying here over the weekends – 71% disagreed.
5. Students are very serious and purposeful about their work – 76% agreed.
6. People around here seem to thrive on difficulty – the tougher things get, the harder they work – 71% agreed.

These statements suggest that USM students tend to study hard and are highly motivated. On the other hand, however, discussions in classes and tutorials are not rigorous and intense (75% agreed) and that there is a lack of interest in the philosophy and methods of science (80% agreed). These negative perceptions of the students are quite interesting and indicate that the students expect more in these aspects of university teaching.

The scale Practicality is measured through statements like the following:

1. Anyone who knows the right people in various schools/departments or administration can get a better break – 72% agreed.
2. The important people at this university expect others to show proper respect for them – 82% agreed.
3. Student rooms in the university are more likely to be decorated with pennants and pin-ups than with paintings, carvings, mobiles, fabrics, etc. – 84% agreed.

It is interesting to note, however, that statements measuring the social, sport and fun aspects of this scale tend to be viewed negatively by students, that is, student responses are opposite to the keyed direction, or negative.

The USM environment is perceived by this group of students as giving little emphasis to both Awareness and Community. Awareness is measured through statements like the following:

1. Students are encouraged to take an active part in social reforms or political programmes – 8% agreed.
2. Students are actively concerned about national and international affairs – 26% agreed.
3. Students are encouraged to criticise administrative policies and teaching practices – 21% agreed.

The low degree of agreement reflects that students tend to feel that Awareness is not a dominant characteristic of the USM environment. Similarly, low student responses to statements like these below reflect that Community is not a dominant characteristic of USM

1. The School/Department helps everyone get acquainted – 27% agreed.

2. When students run a project or put on a show everybody knows about it – 17% agreed.
3. Most of the academic staff are interested in students' personal problems – 24% agreed.

Finally, in summarizing the main features of the USM environment, it is useful to compare it with the category of institutions in the United States with which it is most similar. The institutions in the norm group are divided into eight major categories or types of institutions which are known to have different environments. These eight categories are the highly selective liberal arts colleges (e.g. Radcliffe College – Massachusetts), the highly selective universities both public and private (e.g. Stanford University), the general liberal arts colleges (e.g. Lafayette College – Pennsylvania), the general universities both public and private (e.g. University of Georgia), the state colleges and other universities (e.g. San Francisco State Colleges), the teachers colleges and others with major emphasis on teacher education (e.g. Ball State University, Indiana), the strongly denominational liberal arts colleges (e.g. Oklahoma Baptist University), and colleges and universities emphasizing engineering and the sciences. The Figure 1 below shows that the USM profile is very similar to that of the category of institutions labelled as colleges and universities which emphasize engineering and the sciences (ES).

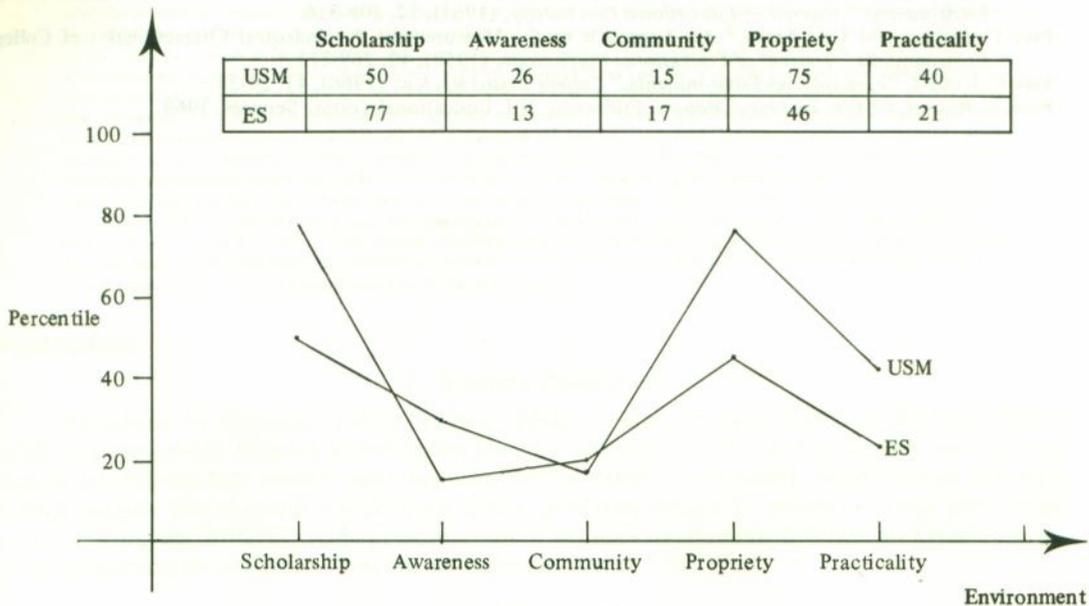


Fig. 1. Environment Profiles for USM and ES

Although there are minor differences along the five scales, the general shapes of the two profiles are very similar. Two examples of such colleges and universities in the United States are Purdue University, Indiana, and Illinois Institute of Technology. This is an interesting finding and is in line with the emphasis of USM on science and technology.

### Conclusion

This study has presented a description of the environment of USM based on the second edition of the instrument CUES which has scale reliabilities of .89 and above. This instrument has been widely used in North America and has shown to be reasonably valid as measures of the uni-

versity environment. Although the validity of this instrument for use in Malaysia has not been established, it is felt from an examination of the instrument that the statements are quite relevant to university life in Malaysia. The results of this study also indicate that the instrument is useful in measuring the dominant characteristics of USM. In particular, the environment of USM as described through the use of the CUES appears realistic and in line with expectation. Further studies, however, should try to investigate whether the CUES is sensitive to known differences between universities in Malaysia.

An important implication of the study is that the CUES may provide very useful data in the purposeful planning and development of the environment of a university.

#### Note

<sup>1</sup>Modified version of the CUES was used and the modifications were basically to change American terms, phrases etc. so that they could be more easily understood by Malaysian students. The meanings of the statements were in no way altered.

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