

Achievement Motivation of University Students

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ABSTRAK

Objektif kajian ini ialah untuk meneliti motivasi pencapaian pelajar universiti berkaitan dengan fakulti pengajian, kumpulan etnik, tahun pengajian, jantina dan tempat asal mereka. Kajian ini juga mengkaji tiga pembolehubah bersandar yang lain iaitu lokus kawalan, sikap terhadap pembelajaran dan kebiasaan belajar. Subjek terdiri daripada 1050 pelajar di Universiti Kebangsaan Malaysia. Ujian peramatan tematik telah ditadbirkan untuk mengukur motivasi pencapaian. Alat ukuran lain termasuklah skala dalaman dan luaran Rotter, skala sikap dan skala belajar. Keputusan menunjukkan terdapat perbezaan yang signifikan dalam motivasi pencapaian pelajar mengikut fakulti ($F(5,939) = 13.39, k < .05$), tahun pengajian ($F(1,939) = 4.55, k < .05$) dan kumpulan etnik ($F(2,939) = 6.58, k < .05$). Dari segi lokus kawalan, pelajar lelaki didapati lebih berorientasi dalaman daripada pelajar perempuan ($F(1,876) = 7.22, P > .05$). Perbezaan yang signifikan didapati dalam sikap subjek berhubung dengan kumpulan etnik ($F(2,828) = 9.93, k < .05$), tahun pengajian ($F(1,828) = 5.03, k < .05$) dan fakulti ($F(1,888) = 8.18, k < .05$).

ABSTRACT

The achievement motivation of 1050 Universiti Kebangsaan Malaysia students was measured in relation to faculty and year of study, ethnic group, gender and place of origin. Three other dependent variables, locus of control, attitude towards learning and study habits, were also examined. The tests used were the thematic apperception test, Rotter's internal and external scale, the attitude scale and the study scale. The results showed that there were significant differences in achievement motivation among students based on faculty ($F(5,939) = 13.39, p < .05$), year of study ($F(1,939) = 4.55, p < .05$) and ethnic group ($F(2,939) = 6.58, p < .05$). On locus of control, it was found that male students were more internal than female students ($F(1,876) = 7.22, p < .05$). Significant differences were also found in attitudes of subjects in relation to ethnic group ($F(2,828) = 9.93, p < .05$), year of study ($F(1,828) = 5.03, p < .05$) and faculty ($F(1,888) = 8.18, p < .05$).

INTRODUCTION

Motivation is the process of stimulating and arousing one's behaviour, giving direction to behaviour and sustaining the reinforced behaviour (Wlodkowski 1982). Achievement motivation as defined by McClelland *et al.* (1953) is the positive and negative effects aroused in situations involving competition with certain standards of excellence where performance in such situations can be assessed as success or failure.

The affective model views achievement motivation as an affective disposition, a capacity for experiencing pride derived from successful

competition with a standard of excellence. On the other hand, Weiner (1974) views achievement motivation as a cognitive disposition, a capacity for perceiving outcomes as being related to perception of causality.

Achievement motivation has been hypothesized as one of the driving forces for the development of a nation and considered as a mental 'virus' which causes individuals to be competitive, hardworking and have more persistence (McClelland and Winter 1969). Alschuler *et al.* (1970) suggested that improved attitudes and school performance were related to the development of achievement motivation

skills. A successful school performance can be attributed to the need to achieve excellence, the ability to set realistic goals, the skills to adapt oneself after failure and the responsibility to work persistently to achieve success.

Achievement motivation has received tremendous attention in research. It has been studied in relation to many variables such as ethnic group, gender, attitude, learning habits, grade level, area of study and place of origin.

The present study attempts to examine the relationship between achievement motivation and the following variables: ethnic group, gender, year of study, area of study and place of origin. The study also attempts to examine the relationship between dependent variables (locus of control, student's attitude towards learning and study habits) and independent variables (ethnic group, gender, year of study, area of study and place of origin).

Ethnic Group

Previous studies have shown that ethnic groups differ in terms of achievement motivation, locus of control and academic achievement. A study conducted in Malaysia (Wan Rafaei 1980) found that Chinese students have higher achievement motivation than Malay and Indian students. In another study, Protes (1985) found significant differences in attribution of success and failure between Caucasian students and Black students. The Caucasians attributed their success to their ability while the Black students attributed their success to luck. Significant differences in achievement motivation between White and Black students were also found by Castenell (1983). Graham (1986) indicated that even with comparable or higher self-concept, Black children showed lower academic performance than White children.

Gender

Gender is another variable which has attracted a lot of attention. In a study on students in a private college, McClelland (1983) found male students had significantly higher achievement motivation. Asmus (1986) found that female music students made more internal and stable attributions than males. A local study conducted by Norbaiti (1987) found that female students showed higher internal locus of control than males.

Area of Study

Area of study has been shown to be related to achievement motivation. Kagan and Moss (1962) found that achievement motivation of students was highly correlated to subjects which have constructive activities and immediate feedback. Mehta (1969) reported that male high school students in India had higher scores in physics, chemistry and mathematics. Ryals (1975) also reported that after achievement motivation training, performance of students in mathematics and science increased more than in social studies. A study by Bose *et al.* (1979) showed that engineering students had higher achievement motivation than the other students.

The above findings are consistent with the theory of achievement motivation which states that high achievement motivation is related to challenging tasks.

Year of Study

The year of study is another variable which has been shown to be correlated with achievement motivation. This could be due to the differences in age and experience. Uguroglu (1982) found that older students were more stable in certain personality characteristics than the younger ones. McClure (1986) also found the older students have higher achievement motivation and self control than the younger ones.

Place of Origin

Place of origin has also been shown to have some correlation with achievement motivation. Studies by Maznah (1974) and Wan Rafaei (1980) found a significant relationship between place of origin and achievement motivation. Students from urban areas were found to have higher achievement motivation than those from rural areas. However, Iran (1975) found that subjects with high achievement motivation could come from both urban and rural areas.

Locus of Control

Individuals with internal locus of control are those who perceive themselves as able to control events in their environment. Studies have shown that subjects with high achievement motivation have internal locus of control (Ruiz 1982) as they take responsibility for tasks given to them. Locus of control has been found to be correlated

with academic performance (Kishore 1983; Maznah and Choo 1984).

Attitude Towards Learning

Attitude is a product of a person's feelings, beliefs or thoughts towards a particular object. Studies on attitude have not shown a consistent pattern in the relationship between attitude and variables such as school performance (Cannon 1983; Ibrahim 1984; Ariff 1988).

Study Habits

Study habits show how the students utilize their study time effectively and how they carry out their learning tasks. A number of studies have shown the relationship between study habits and achievement (Entwistle 1980; McKay 1984; Holmes and Croll 1986). Yusoff (1986) found that student learning styles such as convergers, divergers and assimilators are related to achievement motivation.

METHOD

Subjects

Subjects were 1050 second- and third-year students from six faculties of Universiti Kebangsaan Malaysia. Cohen's (1988) sampling procedure was used to minimize type II error and to increase the power of the findings.

Subjects comprised male and female students from three ethnic groups, Malays (56.7%, $n = 595$), Chinese (35.2%, $n = 370$) and Indians (8.1%, $n = 85$). The place of origin of the students was also noted.

Procedures

Subjects were administered several test instruments. The thematic apperception test used to measure achievement motivation, is a projective instrument consisting of 19 pictures and one blank card. However in this study, only 4 pictures were used; (pictures B,H,A,G, Card 7BM and 8BM). Subjects were asked to write imaginative stories based on the pictures. The Harvard version was used and there was no adaptation of the pictures. Subjects were administered the thematic apperception test in intact groups according to faculties and courses. To ensure consistency the same person administered the test to all groups. Similar instructions were given to each group who were shown the pictures on transparencies following

McClelland *et al.*'s (1953) procedures. The qualitative data were translated into quantitative data by following the TAT scoring manual prepared by McClelland and Steele (1972). All the test instruments were administered at one sitting lasting one and a half hours.

The Rotter internal-external scale was administered to measure locus of control either as an internal or an external orientation. The study scale, which measures study habits, consisted of 17 items measured on the 4-point Likert scale. Finally, the attitude scale which measures attitude towards learning, consisted of 19 items measured on the 5-point Likert scale.

The thematic apperception test had an interscorer correlation of .95, which indicates a high level of reliability. The alpha value for the Rotter internal-external scale was .83, the study scale recorded an alpha value of .87 and for the attitude scale the alpha value was .94.

Data were subjected to analysis of variance to test for significant differences and the Student Newman Keuls test was used for further comparison of the means. Anova was chosen as the test statistic to enable the dependent variables to be analysed separately in relation to the independent variables and also because the selection of subjects was based on random sampling.

RESULTS

Table 1 shows the analysis of variance results of achievement motivation.

The F test showed significant differences in achievement motivation between faculty ($F(5,939) = 13.39, p < .05$), year of study ($F(1,939) = 4.55, p < .05$) and ethnic group ($F(2,939) = 6.58, p < .05$).

Further comparison of the means between faculties using the SNK test indicated that subjects from the Engineering Faculty had a higher level of achievement motivation than students from the other faculties, namely Biological Sciences, Social Sciences, Education, Physical Sciences and Quantitative Studies.

With respect to ethnic group, further comparison of the means using the SNK test showed that the Malay subjects had the highest level of achievement motivation; this was significantly different from that of the Chinese and the Indian students.

For the variable year of study it was found that the third-year students had higher

TABLE 1
Analysis of variance of achievement motivation

Source of Variation	Sum of Squares	DF	Mean Square	F values
Main effects	543.67	11	49.42	8.09*
Faculty	409.11	5	81.82	13.38*
Year of study	27.80	1	27.79	4.55*
Ethnic group	80.41	2	40.20	6.58*
Place of origin	1.08	1	1.08	.18
Gender	.07	1	.07	.07
Interaction Effects	246.09	44	5.59	.92
Error	9.38	939	6.11	
Total	6529.14	994	6.57	

TABLE 2
Analysis of variance of locus of control

Source of Variation	Sum of Squares	DF	Mean Square	F values
Main effects	218.80	11	19.89	1.88
Year of study	3.67	1	3.67	0.35
Faculty	36.85	5	7.37	0.70
Ethnic group	51.99	2	26.00	2.46
Gender	76.27	1	76.27	7.22*
Place of Origin	30.80	1	30.80	2.92
Two-way interaction effects	324.42	44	7.37	0.70
Error	9249.79	876	10.56	
Total	9793.02	931	10.52	

* $p < .05$

achievement motivation than the second-year students; this was significant at the .05 level.

The other variables, namely gender and place of origin, did not show significant differences in achievement motivation.

Locus of Control

Table 2 shows the analysis of variance results on locus of control. The only variable which showed significant difference in locus of control was greater ($F(1,931) = 7.22, p < .05$). Comparison of

the means indicated that the male students had greater internal control than the female students.

Students' Attitude Towards Learning

Table 3 shows the analysis of variance results on students' attitude towards learning.

The variables which indicated significant differences were year of study ($F(1,828) = 5.03, p < .05$), faculty ($F(5,828) = 2.8, p < .05$) and ethnic group ($F(2,828) = 9.93, p < .05$). Comparison of the means for ethnic group shows

TABLE 3
Analysis of variance of students' attitude towards learning

Source of Variation	Sum of Squares	DF	Mean Square	F values
Main effects	2856.25	11	259.70	3.34*
Year of study	390.40	1	390.70	5.04*
Faculty	1091.45	5	218.29	2.81*
Ethnic group	1542.32	2	771.16	9.93*
Gender	33.16	1	33.16	0.43
Two-way interaction effects	3452.94	44	78.48	1.01
Error	64329.46	828	77.70	
Total	70638.65	883	79.99	

* $p < .05$

TABLE 4
Analysis of variance of study habits

Source of Variation	Sum of Squares	DF	Mean Square	F values
Main effects	2288.77	11	208.07	4.69*
Year of study	501.01	1	501.01	11.30*
Faculty	1813.29	5	362.66	8.18*
Ethnic group	73.19	2	366.59	0.83
Gender	85.71	1	85.71	1.93
Place of origin	19.44	1	19.44	0.44
Two-way interaction effects	1716.07	44	39.00	0.88
Error	39364.58	888	44.33	
Total	43369.42	943	45.99	

* $p < .05$

that the Malay students had a significantly more positive attitude than the Chinese and the Indian students.

The SNK test however did not show any significant difference between the faculty means for attitude. Among the faculties, the Engineering faculty students showed the most positive attitude.

As far as the year of study was concerned, the third-year students had a more positive attitude than the second-year students.

Study Habits

Table 4 shows the analysis of variance results on study habits.

Significant differences were found in two variables, namely year of study ($F(1,888) = 11.30, p < .05$) and faculty ($F(5,888) = 8.18, p < .05$). Further comparison of the means showed that on year of study, the study habits of the third-year students were more positive than those of the second-year students. The SNK test on means between the faculties showed that the Faculty of Engineering students had more positive study habits than students from the other faculties. The difference between students from the Biological Science Faculty and the Quantitative Studies Centre was significant.

DISCUSSION

The differences in achievement motivation among ethnic groups, with the Malays having the highest level of achievement motivation, is not consistent with McClelland *et al.*'s (1953) theory of achievement motivation. In Malaysia, the Chinese as an ethnic group excels in business. McClelland's theory suggested that the people who have developed economically have high achievement motivation.

The results also do not support the findings of other studies such as Zainab and Kwok (1970) and Ramirez and Price Willams (1976). However, the results are consistent with the findings of studies conducted by Iran (1975), Yusuf (1975) and Kholijah (1980).

The high achievement motivation of Malay students could be due to the changes that have occurred in Malaysian society as a result of economic and social development. The awareness among the Malays that they must change in order to progress could have been taken as a challenge to compete with the Chinese who are better off economically. This is in line with Atkinson's (1957) contention that achievement motivation can increase when stimulated by challenging situations such as competition and risks.

The differences in achievement motivation between the Malays and the two other ethnic groups could also be due to Malay child-rearing practices. The challenges due to hardship could have helped their children to develop an awareness to progress and compete with the other ethnic groups. The relationship between achievement motivation and child-rearing practices was highlighted by Winterbottom (1958), Rosen D'Andrade (1959) and Siti Rahayu (1984). Practices such as training children to be self-reliant and independent at an early age can help the children to be achievement motivated.

The difference in achievement motivation between the second- and third-year students supports the research findings of Uguroglu (1982); Yusoff (1982); McClure (1986); Hamidah (1984). It could be due to the environment and the challenges faced by the third-year students, who must study very hard in order to pass their examinations. To achieve success in the examination they have to face many challenges, such as getting good grades for their coursework. Good grades will qualify them to enter fourth (Honours) year. The results support Atkinson's

(1957) contention that achievement motivation can increase in activities which require competition and stiff challenges.

In addition to ethnic group and year of study, the faculty or area of study showed significant differences in achievement motivation. Students from the Engineering Faculty had higher achievement motivation than students from the other five faculties. The result supports the research findings by Bose *et al.* (1979) which indicated the superiority of engineering students in achievement motivation over students from other faculties.

The differences could be due to the challenging courses offered by the Engineering Faculty. This is consistent with the theory of achievement motivation which states that achievement motivation is associated with challenging tasks of intermediate difficulty. The results support the findings of studies conducted by Kagan and Moss (1962), Mehta and Kanada (1969) and Abdul Nasir (1982).

The research findings in relation to faculty are in line with achievement motivation theory associating high achievement motivated individuals with desire to obtain concrete feedback on their progress. They have the tendency to set concrete goals so that they can evaluate their achievement. Courses such as social science and literature do not have the same degree of precision in the evaluation of progress.

The results also showed that students' locus of control differs significantly, with the male students having a more internal orientation than the female students. This supports the research findings of Feather (1968), Parsons and Schneider (1974), McGinnies *et al.* (1974) and Chang (1989). The differences in locus of control between male and female students could be due to differences in the socialization process with regard to gender roles. The males are often expected by society to be strong, active, competitive, confident and independent. On the other hand, the females are taught to be passive, soft, modest, patient, obedient and dependent. Due to the socialization process, males tend to have high expectations and to be more optimistic than females.

The findings related to attitude showed significant differences among the three ethnic groups. Despite lagging behind economically, the Malay students had a more positive attitude than the Chinese and Indians. This finding

supports those of Yusuf (1975), Nojumuddin (1978), Razak (1981) and Hamidah (1984).

As explained by Triandis (1971), attitudes can change through various ways, for instance with new knowledge or experience. In the case of the Malays, their attitude might have changed due to the current economic or social changes which are challenging to them. The competitive nature in various fields such as education and business could have encouraged the Malays to change their attitude. The increasing progress of the Malays in the economy, education and in various professions may be due to the change in attitude.

The results on study habits indicated differences between faculties and years of study. Students from the Engineering Faculty showed the most positive study habits. This supports the findings in studies by Hamid (1977) and Bose *et al.* (1979). The positive study habits of Engineering students are understandable as the courses offered by the faculty are complex and challenging. To master the courses and ensure success, the students must be creative and critical and find a systematic and effective way of learning.

The engineering courses could have encouraged the students to achieve success, as it is necessary for them to plan proper strategies in order to be successful. This is consistent with the theory of achievement motivation which states that achievement motivation is associated with challenging tasks.

The year of study also showed differences in study habits. The third-year students had more positive study habits than the second-year students. This difference could be because the third-year students have different experiences from the second-year students. The third-year students could be better off in terms of planning and selecting the most effective learning techniques. This finding is consistent with those of Uguroglu (1982) and McClure (1986) which indicated that older students were more stable in certain personality characteristics.

The findings showed that the subjects' place of origin, whether urban or rural does not have any significant difference in relation to the dependent variables mentioned above.

CONCLUSION

The study attempted to determine the level of achievement motivation of university students in

terms of area of study, ethnic group, gender, year of study and place of origin.

Students from the Engineering Faculty have higher achievement motivation than students in other faculties. They have frequent achievement thoughts such as the desire to achieve excellence, to progress in a particular task, to produce something unique, such as an invention, and also the desire to do better than others. They have pride and satisfaction after a successful achievement. They have positive expectations to be successful either by their own efforts or with the assistance of others. They prefer challenging tasks which will bring greater satisfaction when success is achieved. They are less interested in less challenging tasks.

The Malay students have higher achievement motivation than the Chinese and Indians. The Malay students have a strong desire to be successful, positive expectations to achieve excellence, perseverance towards failure and have pride as well as satisfaction when successful. The Malay students with high achievement motivation are mainly from the Engineering Faculty.

Comparisons based on year of study showed that the third-year students have higher achievement motivation than the second-year students. They have a higher sense of commitment to work hard and achieve success.

On locus of control, the male students showed a greater internal orientation than the female students. The male students believe in factors related to themselves as determinants of events happening in their environment. The female students, on the other hand, tend to believe in external factors such as luck and task difficulty as being responsible for events that happen around them.

The more positive attitudes towards university learning such as being optimistic towards the future, and being confident of the usefulness of the course for their future career are more prevalent among the Malay students than among the Chinese and Indian students. Positive attitudes were also more prevalent among the third-year students than their juniors. The students from the Faculty of Engineering had more positive attitudes than students from other faculties. They have the desire to obtain a good education even though they must face numerous challenges. They perceive studying in a university as interesting, challenging and stimulating. They are willing to continue studying and are not bored with campus

life. They are aware of the importance of education for career and national development.

The third-year students are also more positive in their study habits than the second-year students. The engineering students show more positive study habits than the students from other faculties. They manage their time by planning their activities in advance. They go to the library for reference work or to review the lecture contents. They hold discussions with friends and lecturers. They set certain goals which they want to achieve. They also make an effort to get feedback on assignments or clarification from lecturers.

The study has been successful in contributing information on university students' achievement motivation, locus of control, attitude and study habits. It is hoped that the findings will benefit the teaching staff of the universities in understanding their students and assisting them to make the adjustments necessary for achievement of their educational goals.

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