Title	Goal orientation and its impact on student affect: Some findings from a Singapore sample
Author(s)	Katherine Yip
Source	*Singapore Journal of Education, 12*(2), 88-92
Published by	National Institute of Education (Singapore)

Goal Orientation and its Impact on Student Affect: Some Findings from a Singapore Sample

Katherine Yip

Abstract

The effect of goal structure on motivation and achievement has been well documented in studies conducted amongst children in the west. The present study provides findings from older students aged (12 to 19) belonging to a multi-cultural Asian society. Students (N=1573) responded to a questionnaire designed to identify and evaluate psychological states; results showed that students in this sample expressed affect similar to that experienced by western counterparts given the same reward structure. In the context of this study it is largely competitive; hardly a classroom in Singapore is structured along the lines of a noncompetitive, individualistic model.

Descriptors: Reward structure, achievement motivation, competitive reward structure and affect, affect, performance, learning goals.

Research studies in the area of achievement motivation conducted in Western societies have repeatedly shown significant differences in terms of performance, achievement attributions and affect of children depending on what the goal structure of the classroom was (Ames, et al, 1977, Ames & Ames, 1984; Dweck, 1986; Dweck & Leggett, 1988). Three kinds of goal structure were investigated: **competitive** (where pupils work against each other to reach a goal); **cooperative** (where pupils work as a team toward a common goal); **individual** (where pupils work toward a goal set in relation to an absolute standard).

Among other findings concerning a competitive system of reward and motivation, the following were found to be generally true:

(a) children focused on their ability to win,

(b) children's evaluation of personal ability fluctuated according to the outcome of test results,

(c) children's feelings and levels of self-esteem were affected as a result of the above two factors.

It was also established that these children seldom analysed mistakes in past performance to learn from previous experiences. Children working under a competitive reward structure feel that the "bottom line is whether one is a winner or loser" (Ames & Ames, 1984). Even when ability was not in question and success had been previously experienced, these children evaluated their personal ability on the basis of the current outcome, to the exclusion of other possible salient factors, such as effort, task difficulty and luck. Ability was rated as high if they won and low if they lost. Conjunctively, levels of self-esteem also fluctuated depending on the nature of the outcome; little personal satisfaction was experienced by losers and reward and satisfaction came only with winning (Ames, et al, 1977).

In contrast, under the individualistic (non-competitive) goal structure where "the criteria for success are defined in relation to some absolute standard" (Ames & Ames, 1984), children tended to focus on effort and on trying to do their best, because they believed that trying itself was valued; reward and personal satisfaction were linked with effort, self-improvement and progress.

In the cooperative structure where the emphasis is on shared effort and on doing one's part, groups that have successful outcomes alleviated the negative self-evaluation of poor performers, *but* group failure diminished the positive self-evaluation of high-performers! Dweck (1986) had also observed similar phenomena.

Children in that study came under two classes of achievement motivation:

(a) learning goals in which individuals sought to increase their competence, to understand or master something new. These children were similar in their orientation to those in the individualistic condition described by Ames & Ames, 1984.

(b) performance goals in which individuals gained favourable judgements of their competence or avoided negative judgements of their competence. The orientation of these children correspond to the ones in the competitive condition described by Ames & Ames, 1984. Children who were oriented towards *learning* exhibited adaptive behaviours "characterised by challenge seeking and high, effective persistence in the face of obstacles" (Dweck, 1986). These children chose challenging tasks regardless of whether they believed themselves to possess high or low ability; they were more willing to take risks, and they thought more about the value of the skill to be developed or their interest in the task to be undertaken. Obstacles were seen as a cue to increase their effort or to analyse and vary their strategies. Citing Leggett (1986), Dweck went on to point out that children who were oriented towards *performance*, in contrast, avoided challenges, and high effort was at times, negatively related to satisfaction. This latter group of children seemed to be averse to putting in effort in the face of uncertainty, and their worry about goal attainment may overwhelm their intrinsic interest (Ames et al, 1977; M. Bandura & Dweck, 1985; Elliot & Dweck, 1985).

This report deals with a study of the Singaporean students who, though in the Asian context, are also operating under a competitive goal structure. Looking at the data from the Singapore sample (N = 1573), there is reason to believe that a phenomenon similar to that which the other researchers have observed is happening among students here. Whereas research in the West has largely focused on younger pupils, the research conducted in Singapore focused on the age group of 12-19 years, and on students from four ethnic groups - Chinese, Malays, Indians and Eurasians. However, as there were too few Eurasian students the present discussion does not include this ethnic group.

Method

Table 1 shows the distribution of the sample. It would be appropriate at this point to explain that students of superior and average ability are channelled to the Special and Express streams respectively where they follow a 4-year curriculum (Secondary 1 to Secondary 4), at the end of which they sit for a national examination that marks the completion of secondary schooling.

Table 1: Distribution of sample by Grade Level and Stream

Grade Level & Age Equivalent	Stream	N	Grade Level Total
Secondary 1	Special	60	429
12-13 years	Express	187	
	Normal	182	
Secondary 2	Special	46	435
13-14 years	Express	205	
	Normal	186	
Secondary 3	Special	33	358
14-15 years	Express	182	
	Normal	143	
Secondary 4	Special	46	349
15-17 years	Express	178	
	Normal	125	
Secondary 5	Normal	134	134
17-19 years			

Weaker students are channelled to the Normal stream and are given an additional year (Secondary 5) to complete the curriculum.

The sample consisted of students representing a range of abilities from ages 12-19; the majority were Chinese (80%), the remainder were Malays (15%) and Indians (5%). Students responded to a 100-item questionnaire* which sought to measure school concerns, test anxiety, academic adjustment, and confidence. All items were worded as problem statements and responses were recorded using a 5-point scale: Always (1), Usually (2), Sometimes (3), Rarely (4) and Never (5). Table 2 summarises the responses of students across ability groups; Table 3 gives a summary of the responses of students from each level, while Table 4 summarises the responses from the stand point of ethnicity. To facilitate discussion, response categories 1 and 2, ie. "Always" and "Usually" are *combined* . The figures reported represent percentages within each ability stream, grade level or ethnic group.

Results and Discussion

Table 2: Student Responses in Each Ability Stream

	Statement	Special	Express	Normal
1	When I do poorly in class it spoils my day.	45	50	38
2	After tests I worry about my results.	46	58	64
3	I think a lot on how well I will do in tests.	47	53	52
4	I get upset if I don't do well in tests.	55	66	63
5	I think of the importance of doing well in tests.	70	74	71
6	Feeling good about high marks does not last long.	72	70	70
7	I don't like making mistakes.	76	69	62

*This questionnaire is the Adolescent Counselling Inventory (ACI) which was jointly developed by the author and Dr David Throll, NIE. The ACI has been normed on approximately 2000 secondary school students.

Table 3: Student Responses in Each Grade Level

	Statement	Sec 1	Sec 2	Sec 3	Sec 4	Sec 5
1	When I do poorly in class it spoils my day.	48	42	49	42	32
2	After tests I worry about my results.	67	65	62	47	43
3	I think a lot on how well I will do in tests.	58	52	52	48	45
4	I get upset if I don't do well in tests.	70	68	66	53	51
5	I think of the importance of doing well in tests.	82	76	70	63	63
6	Feeling good about high marks does not last long.	31	36	46	36	35
7	I don't like making mistakes.	72	65	68	61	63

Table 4: Student Responses in Each Ethnic Group

	Statement	Chinese	Malay	Indian
1	When I do poorly in class it spoils my day.	46	34	50
2	After tests I worry about my results.	55	63	64
3	I think a lot on how well I will do in tests.	49	56	64
4	I get upset if I don't do well in tests.	63	63	72
5	I think of the importance of doing well in tests.	72	77	78
6	Feeling good about high marks does not last long.	38	34	32
7	I don't like making mistakes.	70	57	66

Affect and Behaviour Associated with Competitive Goal Structure

As reported by Ames & Ames (1984) students in the competitive reward (goal) structure place great emphasis and importance on winning, that is, on doing very well. Looking at the data from the Singapore sample as a whole (where students are operating under the competitive goal structure), the picture that emerges is that regardless of *ability*, students are frequently concerned about how they will do in tests and are upset if they do not do well. This is apparent when one examines student responses to statements 4 and 5 in Table 2. The rating of responses to statement 5 is one of the highest in the cluster of statements. Similarly, there is a high response rate to statement 7. Like their Western counterparts, students in the Singapore sample also do not like making mistakes. This appears to be a feature of students working within a competitive reward structure. It is significant that good feelings associated with high marks are rather short-lived even for high-ability students. Maintaining a high level of performance therefore seems to be a tenuous affair and the emotional pay-offs in terms of satisfaction do not seem to be commensurate with the tremendous effort that is required in order to sustain it.

We have already seen that the affect and behaviour associated with the competitive goal structure can be observed among students across all ability groups. The next question to be addressed is: are these effects experienced to the same degree across all age and ethnic groups?

From the data in Table 3, we can observe that much higher percentages were recorded for the younger students (ie Sec 1 to Sec 3 students), with the exception of responses to statements 1 and 6. The reactions to these statements suggest that students of all age-groups feel that their day is ruined when they do poorly in class, and the good feelings that accompany high marks are short-lived. Lower scores were observed for older students with reference to the other statements. One possible explanation is that these students have had three years to adjust to the demands of an expanded secondary curriculum; this is supported by the evidence that the highest percentages were recorded for the Sec 1 students, students who had just embarked on the secondary curriculum and are still adjusting to its new demands. As such, these younger students are in a more vulnerable position.

From a standpoint of ethnicity, the pattern of the students' responses was a mosaic; clear trends emerged only in responses to statements 5 and 6. High percentages were recorded for statement 5, indicating that students, irrespective of their ethnicity, think a lot about the importance of doing well in tests. All students in Singapore are only too aware of the importance of grades in school! The students from all ethnic groups also noted that good feelings associated with high marks do not last long.

Responses to the other statements reflect possible ethnic differences. Indian students registered the highest response rates to statements1, 2, 3 and 4; the highest percentages for the Malay students was recorded for statements 1 and 6. In both situations, students were found to (1) focus more on outcomes, (2) feel good when outcomes are good, and to feel low when outcomes are poor, and (3) experience difficulty in maintaining their level of confidence. In addition, a number of similarities and some differences were observed in the ethnic pattern of response to the various statements. While all groups attach importance to doing well in school, Indian students were more worried about their academic performance; Chinese students showed a strong dislike or intolerance for mistakes, and Malay students not only had a more tolerant attitude towards mistakes, but were also less easily upset by mistakes that they commit.

Implications

In 1989, pastoral care (or guidance and counselling as it is more commonly known in the North America), was formally introduced into the secondary school curriculum. Given the findings of the present study, it is now a challenge to teachers, pastoral care personnel and policy-makers to evolve a school system where every student is "expected" to do his best

in a competitive and achievement-oriented society, while ensuring that maladaptive behaviours, such as the ones already observed are not aggravated, especially among the younger students where the tendency is more pronounced.

Conclusion

Studies conducted in the United States involving children from lower grades coming from a largely Western society have shown that under the competitive goal structure, such children focus on performance goals (rather than on learning goals); and since performance is the main focus, winning becomes very important. It was also established that satisfaction was related to outcomes - children feel good or otherwise depending on what the outcome was. Findings also showed that children working within the competitive goal structure had difficulty maintaining confidence since a drop in performance level easily casts self-doubts on their own abilities.

Findings similar to that above have been found in the Singapore study which was carried out on students from an older age group, belonging to a multi-cultural, Asian society where the emphasis is also placed on performance. Together with the Singapore findings, there is some indication that this phenomena is likely to be observed among students in a competitive reward structure irrespective of culture and ethnicity.

Studies in the United States have also shown that bright students would avoid challenges and would prefer to opt out of pursuits that would cause their ability to be in question. Would the older Singaporean student also exhibit this behaviour? Earlier on it was observed that there was some evidence to show that what was happening among the *younger* children in the United States was also taking place in Singapore among the *older* students. If the same trend occurs it would be a tragedy if some of Singapore's brightest students opted out of challenges in school, and continue this form of maladaptive behaviour in subsequent years. Further research along the lines of a longitudinal study among high-ability students would be desirable; certainly the findings from such a study would prove enlightening and instructive. Meanwhile, some thought could be given to exploring ways of alleviating the negative effects of a competitive structure on students.

REFERENCES

Ames, C., Ames, R., & Felker, D.W. (1977). *Effects of competitive reward structure and valence of outcome on children's achievement.*

Ames, C. & Ames, R. (1984). Goal structures and motivation. *Elementary School Journal*: 85, 1, 39-84.

Dweck, C.S. (1986, October). Motivational processes affecting learning. *American Psychologist*: 1040-1048.

Dweck, C.S. & Leggett, E.L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*: 95, 2, 256-273.