What motivates pupils to learn in Singapore

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Educational Research Association

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Introduction
Singapore has gained much attention as part of the Asian economic miracle. It has blossomed from a tiny British Colony without any natural resources into an economic giant, one of the four Asian Dragons. In recent years, Singapore has also emerged as a nation of educational successes in international competitions such as the Third International Mathematics and Science Study. Our 13 years old team topped in both the Mathematics and Science written and problem-solving tests. There has always been a common belief among the Western educationists that Asian students are rote learners though a number of recent studies by Biggs and his associates have proven otherwise.

As a result of the top ranking attained by Singapore in the TIMSS study, educationists around the world have speculated on the factors underlying the achievement of Singapore pupils. Is it the curriculum, teacher-training, study approach, amount of home-work or class-size? Or a combination of all? Are Singaporeans themselves interested in finding out the reasons for our success in international competitions? Actually no. Parents and teachers in Singapore alike are more keen to know what will motivate pupils to learn. To them, the success in competitions belongs to an exclusive group of pupils while they have to do with the rest of the school-going population.

Motivation Modules in NIE for both pre-service and in-service programmes are usually well subscribed. The writers decided to carry out a survey to find out pupils' perceptions of a motivating teacher and the kinds of rewards valued by them at both primary and secondary levels through the NIE trainees.

There is a plethora of research findings on the personality traits of good and effective teachers by Good and Brophy (1987), Berliner (1987), Jussim (1991) and Stipek (1993), Teachers' enthusiasm, expectations and encouragement were found positively correlated with students' achievement.

A local study by Ng, Chang, Tan and Jong (1994) at the tertiary level revealed that undergraduate and postgraduate students are more concerned with the non-academic traits of lecturers than their professional behaviour inside the classroom. They gave high ratings to traits such as being patient, caring, understanding and approachable as essential characteristics of an effective lecturer. Professional behaviours such as clarity in lecture presentation, giving relevant examples, and being knowledgeable were considered important but only of secondary importance to the local undergraduates. Female undergraduates and postgraduates were found to be more concerned with the non-academic traits of lecturers than the males. What about our primary and secondary pupils? Do they perceive a motivating teacher in the same light as the tertiary students of their lecturer?

Most research findings exhort the advantages of intrinsic motivators such as competency, interest, satisfaction and mastery. There are extensive studies which show that under certain circumstances, offering extrinsic rewards such as cash or expensive gifts for engaging in tasks, actually undermines intrinsic motivation. Reviews by Morgan (1984), Deci and Ryan (1991) and Cameron and Pierce (1994) suggest that external rewards can undermine intrinsic interest in a task. Intrinsic motivation theorists propose that when a reward is offered, a pupil perceives the reward as the reason for engaging in the activity, even though the individual could have been intrinsically motivated to do the task without the reward. The person, therefore, ceases the activity when the reward is withdrawn. An external reward for performing an activity is usually more salient than intrinsic reasons. Thus, a pupil may originally perceive intrinsic interest as the reason for performing a learning activity, but if a desired extrinsic reward for the behaviour is offered, intrinsic interest is discounted and the more salient extrinsic reward is perceived to be the cause.

In an affluent society like Singapore where achievement is measured in terms of the 5 Cs - Cash, Condominium, Car, Credit Card and Club Membership, will pupils be affected by societal norms in their learning efforts?

Methodology

Sample
A total of 25 Primary pupils aged 9-11 years were surveyed. Each is the child of a teacher where they were taught in both academic and class levels.

Secondary 4 with 25 pupils aged 15-17 years were surveyed. Each is the child of a teacher where they were taught in both academic and class levels.

Questionnaire
As the levels, items with questions were

The questionnaire has 2 parts,
1. Subject
2. Character
3. Character
4. Most
5. Character

For the above, please give your opinion,
Most classes, some

Results
The results are based on the teachers and pupils.

Favourite Subject
There was no significant difference in the primary and secondary pupils where Science and Art were the majority of students as favourite subjects.

Reasons
- Interesting
- Stimulating
- Kind
- Good
- Clear

For subjects
- Too many
- Harsh
- Lazy
- Boring
- Poor

Similar, gender
Methodology

Sample
A total of 87 Postgraduate Diploma in Education (Secondary), and 41 Diploma in Education (Primary) trainees who took the Education Elective Module on Motivation participated in the survey. Another 25 Secondary teachers who attended an in-service course on Motivation also took part in the study. Each teacher / trainee was required to administer the questionnaire to a class in the school where they were doing their Practicum / teaching. Number of pupils per class ranged from 25 to 40, and class level was from Primary 4 to Secondary 3. Examination classes such as Primary 6 and Secondary 4 were absent from the classes surveyed for obvious reasons.

Questionnaire
As the questionnaire was designed by the writers for pupils at both primary and secondary levels, items were less than ten in number and responses did not require free responses.
The questionnaire focused on the following areas:
1. Subject liked / disliked by pupils and reasons for their choices. (3 items)
2. Characteristics of a motivating teacher. (1 item)
3. Characteristics of a demotivating teacher. (1 item)
4. Most preferred rewards. (1 item)
5. Characteristics of an interesting lesson. (1 item)

For the above areas 2, 3, 4 and 5, pupils were required to rank the given responses. They were also given the option to name characteristics not listed in the item.
Most pupils were able to complete the questionnaire in less than 30 minutes. For the primary classes, some teachers had to explain the meaning of some characteristics to the pupils.

Results
The results are very reflective of our societal values in Singapore and thought-provoking for teachers and parents alike.

Favourite Subjects
There was no one subject which is considered a leading favourite subject of pupils at both primary and secondary levels. But it is noticeable that non-examinable subjects such as Social Studies, Music and Art were not mentioned by any pupil. Similarly, subjects not favoured by pupils were the same as favourite subjects.

Reasons given for a favourite subject were invariably linked to the teacher:
• Interesting lessons,
• Stimulating activities,
• Kind and caring teacher,
• Good grades attained, and
• Clear explanation.

For subjects most disliked by pupils, the following reasons were most frequently cited:
• Too much homework,
• Harsh and unkind teacher,
• Lazy teacher,
• Boring lessons, and
• Poor explanation.

There were not much differences in the reasons given by the Primary and Secondary pupils. Similar, gender differences were not perceivable.
However, more female pupils, especially at the primary level, had responded that their favourite subject was taught by their favourite teacher.

**Characteristics of A Motivating Teacher**

It is a very interesting comparison among the primary, secondary and tertiary students on their perceptions of an effective/motivating teacher/lecturer. Like their tertiary counterparts, pupils at both primary and secondary levels preferred teachers who are enthusiastic, kind, friendly, understanding and fair to all pupils. In the analysis below, an attempt is made to show the differences in high rankings given to the listed characteristics.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Enthusiastic</td>
<td>S = P</td>
</tr>
<tr>
<td>• Diligent</td>
<td>S &gt; P</td>
</tr>
<tr>
<td>• Kind</td>
<td>S = P</td>
</tr>
<tr>
<td>• Friendly</td>
<td>S &gt; P</td>
</tr>
<tr>
<td>• Clear explanation</td>
<td>S &lt; P</td>
</tr>
<tr>
<td>• Fair to all pupils</td>
<td>S &gt; P</td>
</tr>
<tr>
<td>• Caring and encouraging</td>
<td>S &lt; P</td>
</tr>
<tr>
<td>• Firm in class discipline</td>
<td>S &gt; P</td>
</tr>
<tr>
<td>• Understands pupils’ needs</td>
<td>S = P</td>
</tr>
<tr>
<td>• Gives clear instructions</td>
<td>S &gt; P</td>
</tr>
<tr>
<td>• Marks classwork and homework</td>
<td>S = P</td>
</tr>
<tr>
<td>• Interesting and lively lessons</td>
<td>S &gt; P</td>
</tr>
<tr>
<td>• Allows Choices</td>
<td>S &lt; P</td>
</tr>
</tbody>
</table>

Legend:
- S = Secondary pupils
- P = Primary pupils

Gender difference was not noticeable.

**Characteristics of A Demotivating Teacher**

Similarly, Unpopular teachers are demotivating in their unkind behaviour towards their pupils and their careless treatment of their class lessons. For the younger primary pupils, cold and unsympathetic behaviours made a greater negative impact on them. The older secondary pupils would be less dependent emotionally on the teachers and hence better immune against uncaring teachers. They are more concerned with passing the major public examinations.

Comparisons between the primary and secondary responses are shown below:

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Lazy</td>
<td>S = P</td>
</tr>
<tr>
<td>• Boring lessons</td>
<td>S = P</td>
</tr>
<tr>
<td>• Sarcastious</td>
<td>S &gt; P</td>
</tr>
<tr>
<td>• Critical</td>
<td>S &gt; P</td>
</tr>
<tr>
<td>• Unfair to weak pupils</td>
<td>S &lt; P</td>
</tr>
<tr>
<td>• Poor explanations</td>
<td>S &gt; P</td>
</tr>
<tr>
<td>• Unprepared lessons</td>
<td>S &gt; P</td>
</tr>
<tr>
<td>• Too much homework</td>
<td>S &lt; P</td>
</tr>
<tr>
<td>• Unhelpful</td>
<td>S &lt; P</td>
</tr>
<tr>
<td>• Cold and unsympathetic</td>
<td>S &lt; P</td>
</tr>
<tr>
<td>• Classwork and homework left unmarked</td>
<td>S &gt; P</td>
</tr>
<tr>
<td>• Imposes corporal punishment for the slightest offence</td>
<td>S = P</td>
</tr>
</tbody>
</table>
• Poor classroom management  
• Does not listen or accept suggestions  
• Unrealistic expectations

Pupils may not hand in their homework faithfully but they have no respect for teachers who would not mark pupils’ classwork and homework, and do not prepare their lessons well. It is also noticeable that Secondary pupils were more task-oriented and critical of their teachers’ management and teaching skills.

Again gender differences were negligible.

**Most Preferred Rewards**

This is one item which yields the most disturbing data. Unfortunately they are reflective of our emerging materialistic society.

The most popular preferred reward at both levels was CASH. This was cited by a majority of pupils (even pupils from well-to-do families). This should not surprise most Singaporeans in view of the fact that the most popular ‘Carrot’ for encouraging achievement in most areas of endeavour is usually money. Similarly, the most effective deterrent against anti-social behaviours is also hefty fines. Money is hence perceived as a powerful controller of human behaviour. But this also should sound a warning bell to the long-term development of a selfless, loyal and caring Singaporean. What implications has this obsession with money for the values of the future generations of Singaporean.

For the primary pupils, incentives like

• An outing,
• Class party,
• Early dismissal,
• Shorter lessons,
• Public praises and
• Public display of well-done assignments received higher rankings.

Secondary pupils preferred something more subtle like:

• Written encouraging comments in book or test paper and
• Choice of activity.

It is a rude discovery that very few pupils would like to have book vouchers as a reward. Is reading an extinct habit of pupils in the 20th century and 21st century? The prognosis for the intellectual and moral development of our pupils seems grim, with their obsession with money and a lack of interest in reading.

By comparison, male pupils were more cash-oriented. Female students showed a need for public praises too besides cash.

**Characteristics of An Interesting Lesson**

With the introduction of IT into the classroom, pupils also set higher expectations of the teaching approaches in class. The younger primary pupils preferred activity-oriented lessons while the older secondary pupils favoured well-planned and well-explained lessons.

The disparity in preferences between primary and secondary pupils is shown below:

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear specific instructions</td>
<td>S &gt; P</td>
</tr>
<tr>
<td>Clear explanation</td>
<td>S &gt; P</td>
</tr>
<tr>
<td>Relevant examples</td>
<td>S &gt; P</td>
</tr>
<tr>
<td>Variation on teaching approaches</td>
<td>S = P</td>
</tr>
<tr>
<td>Use of relevant visual aids and manipulations</td>
<td>S &lt; P</td>
</tr>
<tr>
<td>Hands-on experiences</td>
<td>S &lt; P</td>
</tr>
<tr>
<td>Well-planned lessons</td>
<td>S &gt; P</td>
</tr>
</tbody>
</table>
• Opportunities for sharing and discussions  \( S = P \)
• Use of computer and video in lessons  \( S < P \)
• Outdoor activities  \( S < P \)

With the new initiatives of IT and Thinking activities introduced by the Ministry of Education into schools, lessons are likely to be more interactive and discussive with the assistance of CAI.

Conclusion
From this survey across many schools at both the Primary and Secondary levels, we can draw the following conclusions on the preferences of our pupils:

a) They preferred teachers who are approachable and who prepare stimulating lessons.
b) They disliked teachers who are unkind and lazy.
c) They were obsessed with money and having a good time.
d) An activity-oriented lesson enhanced by computer and video sessions was considered motivating, especially by the younger pupils.

Results on characteristics of motivating teachers and lessons were not unexpected but the findings on our pupils' obsession with money is startling. Who is responsible for our youngsters materialistic attitude towards life? Their fervent pursuit of cash is contrasted by their lack of interest in books. Or are they so stressed out by an overcrowded curriculum that they have taken a dislike to reading as an enjoyment? Whatever the reasons, it is a sobering discovery and requires the serious attention of teachers and parents to change our pupils' attitudes towards money and values. Dr Ong Chit Chung had this to say, "We should avoid being driven by materialism and the head-long pursuit of conspicuous consumption, affluence and hedonism." He added that Singapore will have to learn to manage the problems of its success (The Straits Times, 17 November 1997, Page 34).

References:
The Straits Times (1997), 17 November, Page 34.