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INAUGURAL LECTURE

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The Education Of At-Risk Children: The Challenges Ahead

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Dr Sharifah Md Nor was born in Batu Pahat Johore, the youngest in the family of ten. She grew up and obtained her primary and secondary school education in Muar. She obtained her B.A (hons) degree from the University of Malaya in1971, and Diploma in Education at the same university in 1972. In 1973, she started her career as a school teacher back in her hometown in Muar. Much as she loved her students, she had to leave them in 1975, to become a tutor in the Faculty of Education Universiti Pertanian Malaysia. In the same year she went to the University of Wisconsin Madison USA for her Masters degree. She obtained her Masters degree in Education in 1977, and in the same year, on one freezing day, in winter she married Mohd Fadzilah Kamsah a fellow student from the same university. Late 1980, she again went to the same university for her Ph.D. and succeeded, by 1984, in defending her dissertation and giving birth to two lovely children. In 1985, she was conferred the Doctor of Philosophy in Education by the University of Wisconsin.

Dr. Sharifah enjoys tremendously her work as a lecturer in UPM amidst positive and supportive climate of her Faculty and University at large. In 1977 she obtained her lecturer post, in 1993, the Associate Professorship and in 2001, the full Professorship. She also enjoys teaching her students both at the undergraduate and graduate level. She teaches courses pertaining to the field of sociology of education to both graduates and undergraduates. After nearly 29 years of service in the University she has taught thousands of student teachers, and supervised more than 50 graduate students. Apart from teaching, her other passion is research. To date she has been involved in 37 research mainly in her area of interest. Of these 12 researches were consultancy research undertaken for the Ministry of Education and other funding agencies.

Her interest in the plight of at-risk children has prompted her to work with organisations such as the UMMI Foundation, where she and her colleagues embarked on research regarding orphans in orphanages. She also sat in panels discussing educational issues relating to children in Selangor. She and her colleagues in the Faculty of Education also worked with the Pembangunan Bakti Ehsan Foundation, planning and implementing the K Family project for underachieving Military children and their families. She also worked with BALKIS on research regarding the needs of girls in probationary homes.

All in all Dr. Sharifah enjoys her work in UPM. She is very grateful to her colleagues, whose support has enabled her to receive the Excellent Service Award from UPM in 1992 and 2001, and from 1998 henceforth, the Excellent Service Certificate. Her loving husband and three beautiful kids and all those around her have made her life complete.

THE EDUCATION OF AT-RISK CHILDREN : THE CHALLENGES AHEAD

ABSTRACT

There is a significant number of students in our schools who are at-risk of school failure. These at-risk learners are generally low achievers, demonstrating low engagement to learning and to other activities of the school. They may also have behavioural problems. Generally they have certain characteristics that render them unable to cope with the demands of the school. These low achievers may either drop out of school early or are still in school until they complete eleven years of schooling. What ever path they take they pose a number of challenges to us, namely how to prevent them from dropping out early, equally important, how we can make their stay in school meaningful and productive so that they can achieve their potentials to the fullest.

The paper attempts to identify school factors affecting the learning of at-risk students who are generally placed in the lowest streams and to present an analysis of their academic achievement, and socio-psychological learning environment. It attempts to highlight the challenges faced by the schools in meeting the needs of these at-risk children, such as early intervention, learning environment, teaching and learning approaches, support services, teachers' needs and skills. Promising programs and efforts undertaken by other countries will also be discussed in order to learn from their experiences. It is indeed a challenge to transform schools, which generally serve some students better than others to be equally sensitive to the needs of all students. It is also equally challenging to transform at-risk students into happy individuals fully engaged in learning and to become productive and valuable members of the society.

INTRODUCTION

Generally we tend to forget about the existence of at-risk students, until we hear from the media about them being involved in gangsterism, truancy or other feats that put their schools and those close to them to shame. When we gather from the media of attempts to solve or explain these students' behavioural and learning problems in school we can't help but wonder if we barking at the wrong tree. Take this example of how teachers explain the reasons for academically weak students' recalcitrant behaviour.

The National Union of Teaching Profession (NUTP), which conducted a study involving 1305 teachers regarding discipline problems in school, revealed that the most worrisome feature of their work is the discipline problems amongst academically weak students (Utusan Melayu May 2004). Among the discipline problems mentioned are tardiness, not doing homework, not bringing text books and work books, not paying attention in class, use of rough, obscene words, and rudeness to teachers or others in authority. Other problems mentioned are, truancy, interfering with the teaching and learning process, stealing, bullying, smoking and vandalism (See also tables 1 and 2a and 2b in appendix A, for data pertaining to lowest stream students' attendance and number of students involved in discipline problems in schools, and statistics of students involved in crimes).

The factors which teachers attribute, as reasons for the discipline problems of academically weak students are interesting. Teachers attest that the attitude of students themselves makes them unmotivated to learn and dislike the teaching and learning process. A majority of teachers put the blame on parents' lack of control on their children at home. Other factors blamed are the mass media and peer influence. School factors such as the curriculum, the attitude of teachers themselves, and the learning environment of these students are not seen as contributory factors.

Similarly we hear of how schools deal with discipline and learning problems of students, the hard line approaches; the demerit system, the warnings and the expulsion, the policing and the like. We also hear of the vouchers for tuition in critical subjects for standard 4-6 students who come from poor families. Thus, it seems that schools are trying to solve the problems of these students by changing the students, as they are deemed to be the main culprits of their behavioural problems, low motivation and low achievement. School factors are not seen as problematic.

The solutions mentioned above may be necessary to solve the short comings of students who are academically weak and having behavioural problems. However, the question is, are we addressing the roots of the problem properly? Hard line approaches may be but temporary measures for some of these students. Tutors for these students may just employ the same classroom teaching strategies, which may not be effective for them. These measures while necessary may not be effective in helping these students perform better academically or improve their behaviour effectively.

Schools and others responsible for the education of at-risk students should seriously examine their roles regarding the education of these students. How well are we serving them in our schools? What do we know about the way they learn and the most effective way to teach them? What is their socio-psychological learning environment? Is their

curriculum appropriate? Are schools' practices concerning these students putting them further into at-risk situations instead of reducing it? These are some of the questions we need to answer in order to take appropriate actions to help at-risk students in our schools.

Who are at-risk and why?

At risk students are generally identified as those at-risk of school failure due to various factors that render them unable to cope well with the demands of the school. They have special needs that schools and others responsible for their education should recognize and act upon. A proper identification of at-risk students is important in order to help them get out of their at-risk situation. Literatures on at-risk students have attempted to develop at-risk categories and specific criteria for identification of at-risk students. The categories and criteria for identification put forward by the Solon Community At-Risk Plan of Service 2003 are helpful in helping us identify at-risk students in our schools. These categories are modified to suit our local situation.

AT-RISK CATAGORIES AND SPECIFIC CRITERIA FOR IDENTIFICATION

Not Meeting Goals In Education Programme	Not involved due to Social/Emotional Concerns	Not Becoming a Productive Worker
Low achievement	Pregnancy	No identified career interests
Inability to cope	Dropout	No future direction/planning
Poor attendance / tardiness	Child of divorce/orphans	No plans beyond high school
Lack of friends	Culturally isolated/rural	Low motivation
Dislike for school	No extracurricular involvement	Low aptitude/skills for work
Lack of feeling of belonging	Substance use or abuse	
Poor organization/study skill	Unhealthy physical appearance	
Financial problem	Inability to adapt	
Limited language proficiency	Poverty	
Low motivation	Negative peer influences	
Discipline problems		

Source: The Solon Community School District, At-Risk Plan of Services 2003(modified)

From the categories above we see that there are various at-risk factors affecting students' learning and there are different types of social - emotional concerns that render them unable to cope with the demands of the school and their future work plans. It can be safely assumed that students with all the characteristics mentioned above are found in our classrooms. While students' background characteristics such as their socioeconomic background, and family circumstances are important at-risk factors, this paper will focus on the school factors and their influence on the education of these students.

Most of our schools practice ability grouping or streaming, to overcome the problem of teaching students of diverse abilities. Primary schools generally stream their students by standard four and in the secondary schools from form one. Academically weak students are generally placed in the lower streams. Our discussion of the at-risk students will refer mainly to students placed in the lower streams.

STUDENTS' ACADEMIC PERFORMANCE

A significant number of our students are not achieving the minimum levels of competency as shown by results in the Primary School Achievement Test (UPSR) and the Lower Secondary Assessment (PMR) in 2003 (see table 3). Obtaining grades Ds and Es in UPSR and Es in PMR are considered as not meeting the minimum levels of competencies.

Table 3. No. of student not achieving minimum level competency in National Examinations (2003)

	No of students	%
UPSR	186,179	39.8 %
PMR	156,337	38.5 %
SPM (Failed)	32.,599	9.1 %

Source : Education Planning and Research Division
Ministry of Education Malaysia(extrapolated)

The substantial number of primary school students that fail to achieve the minimum competency level in the UPSR means that a large number of students will proceed to the secondary school level unable to cope with their lessons well, and will continue to be at-risk of school failure. In the secondary schools, late literacy programmes are almost non-existent. The number of students without the minimum competencies in the PMR is also substantial. These students are promoted to form four in line with the governments' policy to provide eleven years of universal education to students and to prevent a massive dropout at this level .In the year 2000,after the policy was implemented, there was a 90% increase of students' enrolment in form four compared to 1990.

Academic achievement of lower streamed students

There is a vast disparity in achievement between students in rural schools compared to the urban schools, as well as within the schools itself, between students placed in the highest stream and the weakest classes, (see tables 4, 5 and 6 in appendix A). Table 5 (appendix A) reveals the difference in performance of students in the highest and lowest streams (form 1 to form 5) in all core subjects, of a rural school located in a FELDA settlement in Pahang. Table 6 in appendix A shows another set of data obtained from three urban schools in Kuala Lumpur. Both tables show a vast difference in grades achieved by students in the different streams, with the exception of Bahasa Malaysia in the FELDA school. In yet another study,(Sharifah,et.al. 20030 involving 382 form two lowest streamed students in urban schools in Selangor, we found that most of these students do not acquire the skills in BM or Mathematics required at form two. Approximately, 64% of these students scored 0 for mathematical test skills that are supposed to be acquired in form one; a surprising 14.9% scored 0 in the test for mathematical skills for standard 2.

The vast disparity in achievement between students placed in the good classes compared to weak classes is expected, but the magnitude of the difference is mind-boggling. This shows that schools are unable to cope with the diversity of their students well and that

grouping students by ability into different streams of our schools are not helping the weak students improve academically. A study by Sharifah (1985) found that the gap in achievement between students in the good classes grows larger as the students proceed from standard one to standard four.

What is notable about the low performance of our students in school is that they are almost never highlighted in the media. The same is also true regarding the dropout problem.

DROPOUTS

The percentage of students dropping out of schools at all levels have decreased from year 2000 to 2003.However, the number is still substantial. The largest number of dropout is from the primary to the secondary level, i.e. approximately 45,565 students dropout at this level, whilst 16,391 students leave school, from form 3 to form 4, and surprisingly, 14,570 students dropout from form 4 to form 5. See table 7

Table 7. Dropouts in Ministry of Education Schools by Level

	2000	2001	2002	2003
From Year 3 – Year 4	-7,883	-930	-3,377	89
From Year 6 – Remove Class & Form 1	-56,268	-55,168	-47,966	-45,565
From Form 3 – Form 4	-24,671	-20,758	-21,479	-16,391
From Form 4 – Form 5	-14,608	-14,854	-17,181	-14,570

Source : Planning and Research Division Ministry of Education (2004)
Note: About 10% of students continue their schooling outside the MOE systems after Year 6.

At- risk students eventually dropout of school. There are various reasons which may cause them to dropout early, such as poverty, social or personal problems and the like. Wehlage and Rutter (1986) contend that the most powerful determinants of dropping out of school are low expectations and low grades, combined with disciplinary problems and truancy amongst at-risk students. While schools cannot do much with the socio-economic factors that are related to being at - risk, the factors found to be the determinants are very much under the school control.

REDUCING THE RISK: THE CHALLENGES AHEAD

From the discussions above we have established that our schools are having a substantial number of students who are not achieving minimum competencies in literacy skills, and that the dropout problem while not serious, is substantial enough and needs to be reckoned with. We have also indicated that the disparity of grades between the highest streams and the lowest stream students are too vast, which makes us question the effectiveness of the streaming process in helping at-risk students' learning. It is obvious that the school is not paying much attention to the education of these children.

It is costly for the society when students dropout early, with little skills that can help them become productive members of society. However, it is equally or even more costly if those who decide to stay, show low engagement in their learning, are involved with discipline problems, and feel marginalized. They still leave school ill prepared for the world outside. Thus the perpetual challenge that most schools need to face is to prevent students from dropping out and at the same time to ensure that they are productively engaged when they stay. Much has been done to this end, but much more is needed. The challenge ahead is for schools to critically analyze their practices in light of the education of at-risk students. Two crucial aspects of dropout prevention efforts by the schools are, enhancing at-risk students' educational engagement and increasing their school membership. Hence schools need to empower themselves to change, especially in the way at-risk students are served, their learning environment, their instruction and programmes of intervention.

MEETING THE CHALLENGE OF THE EDUCATION OF AT-RISK STUDENTS

Educating at-risk students is a big challenge that requires sound planning, good research, and willingness to experiment and take risks, creative approaches, ample resources, support system and skills of those responsible for their education. The challenges to be undertaken by the schools are forwarded here together with a brief insight of good research and a discussion of promising practices employed elsewhere.

CHALLENGE NO.1: ENHANCING EARLY PREVENTION PROGRAMMES FOR AT-RISK STUDENTS

The substantial number of primary school pupils not attaining minimum competencies in important skills in the UPSR and the equally large number of these students dropping out of school at the end of standard six, implies that not enough effort is expended towards the education of these students. At-risk prevention should start as early as kindergarten and standard one. While in the developed countries pre-school is part of the public school system, in this country this is not the case. Data in 2003 show that the percentage of enrolment in government pre- schools was only 5.2%, the rest of pre-school children are enrolled in either private or other semi government organizations Approximately 36% of our children did not attend pre school. These children may find themselves at-risk of school failure because of this deficit. The Government's plan to incorporate pre-school into our school system is a positive move towards the early education of these children.

The special remedial programme

There is a provision in the education system whereby primary schools with more than 150 students are allocated a special remedial teacher to teach students without basic skills in the 3Rs. The special remedial programme started in 1990, after intervention programmes undertaken by schools were found to be unsuccessful in helping children master the 3Rs. In the year 2000, a total of 86,000 pupils followed remedial programmes in Bahasa Malaysia, and 62,000, in mathematics. Only half of these pupils succeeded in acquiring these basic skills through this programme (EPRD 2002).

This programme is provided only from mid year of standard one, to mid year of standard four. This is a pullout system where pupils diagnosed as needing remedial treatment in

the 3Rs leave their classrooms to attend remedial classes for specific periods in a week. After standard four, students who have not mastered the 3Rs are left to the goodwill of their class teachers to help. The government does not allocate any specific funds for this programme, instead schools are asked to use funds allocated to the schools' guidance and counseling services or from the social science department. The amount of funds from these coffers allocated to this programme is found to be RM 476.00 per year (EPRD 2002).

The dismal results of some pupils in the UPSR are the result of the failure of a large number of schools to help these pupils attain the basic skills in the 3rs through the remedial programmes. Findings of a study undertaken by the Ministry of Education in 2002 regarding the programme and the preliminary findings of a study conducted by a research team from the Faculty of Educational Studies UPM, revealed many factors that need to be reckoned with if we want to prevent the failure of at-risk students. Problems with large classes, teachers' skills and willingness to teach, skills in diagnosing students, teachers' burden with other school tasks, lack of funds, space and support from all parties are cited as serious problems faced by schools running this programme. Remedial classes are usually put on hold, while the remedial teachers take over normal classes left by absent teachers or teachers on maternity leave. Many teachers are untrained or poorly trained to handle these pupils.

Early literacy programmes can only be successful when teachers are well trained, instruction is individualized, resources available and a network of support system provided. One such programme that has achieved success is the Learning Recovery programme undertaken by the province of Winnipeg Canada and some other developed countries in the world. This reading and writing programme, aimed at low achieving children in grade one, is a deliberate attempt to help these children to continue to progress satisfactorily in their classrooms. The teaching is individual in a one to one setting. Each child has an intensive programme of daily instruction, which is additional to the regular class literacy activities. Teachers can get help from at least 10 specialists or consultants regarding this programme in the province of Winnipeg alone. These teachers are not allowed to undertake other school responsibilities but to concentrate on these pupils.

In our schools there are some success stories. Resourceful teachers and school administrators sacrifice their time and money to make this programme successful. However, they are but a minority. Based on our experience trying to collect data pertaining to the programme, we sense a lack of interest amongst some schools regarding this programme. This was reflected by the lack of records available, and the interest and care that they have shown in furnishing information needed regarding the programme in their school. Principals and teachers should make a more serious attempt at helping at-risk children attain early literacy, this implies that more resources in terms of well trained teachers, and materials for these pupils should be the schools' and the Governments' priority.

CHALLENGE NO 2: ENHANCE AT-RISK STUDENTS' SOCIO-PSYCHOLOGICAL LEARNING ENVIRONMENT.

The learning environment of lower streamed students.

The socio-psychological environment of learning is an important factor that affects students' achievement. Research has generally shown that positive classroom environment is associated with improved academic achievement and affective outcomes, such as motivation, self-concept and academic engagement. The discipline problems associated with weak students and the generally low academic achievement of students in the lower streams all point to a negative learning climate for at-risk students. Research has shown that in these classrooms and schools the anti - school culture flourish (Woods, 1990, Lacey, 1970, Hargreaves, 1967).

Pallas et. al. (1994) contend that there are three effects of ability grouping on academic performance of students. First, group placement influences the quantity, quality and pace of instruction which affects learning. Grouping students by abilities thus affects instructions. Secondly, using the theory of socialization, they contend that ability grouping is a social setting in which individual children learn certain behavioural norms, evaluate their performance, internalize academic norms and form expectations of their academic performance and that of others. Thirdly, group placement assigns labels for students placed in the different ability groups, influences the expectations and perception of others (parents, teachers and peers) on the abilities of the various groups irrespective of the actual skills these group members have. This effect is seen as an institutional effect as labels accorded to these ability groups are known and understood by everyone, parents and students alike.

A study by Noraizah and Sharifah, (2001), investigating the learning environment of students in the lowest streams, found that the educational engagements of the lowest stream students were significantly lower than the highest stream students and that the mean score for educational engagement is lowest amongst form four students in the lowest streams, (see tables 8 and 9 in appendix A.) This implies that the longer weak students stay in their respective streams the lower their educational engagement becomes.

Our data also shows that lower streamed classrooms are often noisy and disruptive but passive toward the learning process. Our respondents report that their teachers either keep on teaching, despite the noise, or will refuse to teach at all. Teachers are also seen to ignore students whom they have given up upon, and only concentrate on the few whom they think want to learn. It is disconcerting to note that some lower streamed classrooms are often badly vandalized, with missing fans, chairs and tables, broken doors and windows.

Teachers' expectations and treatment of lowest stream students.

Children's relationship with others is an important variable to learning. Teachers' expectations and treatment of students in the weak classes influence the learning climate of at-risk students. Teachers can be the push or pull factor for students' engagement in learning as well as their behaviour. Noraizah and Sharifah (2001) we found more lowest stream students agreeing to the following statements regarding teachers' expectation and treatment of them;

" we know that most teachers feel that we don't have a bright future"
(57.9% L.S, 27.7% H.S)

"most of the students in my class are not interested in learning because the teachers think that we are stupid"
(60.8% L.S, 14.4% H.S)

" most teachers in my class have low expectations of our academic achievements" (56.1% L.S, 37.9% H.S)

Their informal interviews with lowest stream students gave them some interesting insights to students' views on teachers regarding various matters concerning their students' behaviours:

On playing truants

Q : Why do you play truant?

Student 1 : "It's nothing really, I was hanging around with friends, it is not that I don't want to come to school – but most teachers are a lot of hassle. That teacher (referring to the form supervisor) likes to find fault with me, when I come to school he would reprimand me – he would say "why come to school - why don't you just stay home – sell vegetables?" – he should not be saying all these, he should be encouraging us"

Friend : "Yeah. I hate teachers like that – they are not qualified to be called teachers"

Another friend : "I can't stand it – can you imagine – We are motivated to come to school, but the teachers make us lazy – Look I am doing your work (to teacher/ researcher) because you don't make me mad – you care to listen"

Q : Are there teachers who are nice and care about you?

Student 1 : " We are the last class, which teacher would care for us? Every day we hear unkind words from them. Most teachers who come to our class are sour-faced, only one or two are good and friendly towards us."

On being labeled

Student 1 : " it is really boring – they are always finding fault with us.. we know we are the last class.. they think we are troublesome, but why don't they give us a chance?"

Student 2 : " Teachers in this school like to put us down, we know that we are the last class"

As normal human beings, teachers are also vulnerable to the social environment of the classrooms they teach. A classroom filled with 'lazy' and unmotivated students is a sure ingredient for teacher's feeling of inefficacy. Thus, unless teachers are well trained, skillful and strong spirited, teaching recalcitrant students will not bring out the best in them.

Streaming students by abilities do not seem to help either weak students or their teachers. Some teachers were also observed to behave the following ways in the lowest streams:

- treat low stream students roughly (reprimand in loud voices)
- Could-not-care-less attitude in teaching
- Seldom revise with pupils to prepare them for exams
- Believe that if teachers are nice – students take advantage of them
- do not correct students' mistakes in their assignment

Alternative grouping strategy

Literature and research on at-risk students strongly point to the importance of a positive climate for the teaching and learning of at-risk students. Our practice in differentiating and polarizing our students is not right; it will only marginalize them and enhance the at-risk situations these students are in. What makes it worse is that the streaming process not only polarize students by ability, it also polarizes students by socio-economic status and ethnicity. Generally poor Malay and Indian students are found in the lower streams in multiracial schools (Sharifah 1985, Noraizah 2001). How can we make things right? There are practices suggested by researchers, which we can adopt which can improve the learning environment of weak students and may enhance their self-concept and improve their academic performance and social development.

Slavin (1987) who synthesized empirical evidence regarding the effect of ability grouping on academic achievement suggested that the most beneficial form of grouping is when students are grouped only in one or two important subjects while remaining in mixed ability classes throughout the day. In mixed ability classrooms, cooperative learning can be carried out. Research has shown that cooperative learning will enhance the academic achievement, self-concept and social skills of weak students.
On the other hand if such arrangements are not feasible in our schools due to organizational and administrative constrains and if we want to continue our present practice we have to adhere to these concerns. First, these weak classes should be small and flexible, to ease instruction and to enable students who show improvements to be placed in the higher streams any time of the year. Secondly, research has shown that ability grouping can be beneficial if the curriculum and teaching approaches are creatively planned to suit the interest and the needs of these students. Thirdly, teachers should not give up on these students. Research on successful teachers of at-risk students revealed certain characteristics of these teachers, such as patience, not giving up, working very hard and playing extended roles (Wehlage, 1988). Teachers need to be trained to deal with students with special needs in order to make their interactions with these students supportive and productive. It is important too that students are encouraged to interact across streams, to reduce the effect of polarization amongst students.

CHALLENGE NO. 3: ENHANCE EDUCATIONAL ENGAGEMENT-MAKE LEARNING MORE MEANINGFUL FOR AT-RISK STUDENTS

Most at-risk students have potentials to succeed in their education provided it is meaningful for them. School must provide students with experience of success to counteract the message of failure they encounter daily in their classrooms and life. A classroom full of unmotivated

low achievers often leads teachers to use strategies that neither interest nor challenge them. Our interviews with low-streamed students revealed common strategies used by their teachers. Among the strategies employed are, giving long notes without explanations, teaching only the basics, and teaching too fast or too slow and using mainly text books, and talk and chalk. Making students copy notes is a way to make them feel secured, it is also the best strategy to keep them quiet

Students complained that some teachers are too fierce, and will not entertain their questions if they still do not understand their lessons. A student in one of our interviews angrily said, "Teachers are boring-if we don't understand, they shout at us, that is why we skip class". The problem of not understanding what is taught is the reason most students give for not liking a particular subject. Students' lack of understanding of certain concepts is mainly due to not understanding the terms used by the teachers. We see that they lack skills in both the Malay and English languages, both in writing and comprehension. To help weak students have more meaningful learning experience, the skills in language need to be enhanced.

Another problem related to students' lack of understanding of their lessons is the traditional approach of teaching at-risk students; drilling them in the basic skills and making them memorize facts. Researchers have observed that teachers are unaware that these students do not understand "understanding," that is they are unable to think and make relevant connections to construct understanding. Pogrow and friends started the HOTS (Higher Order Thinking Skills) project involving students in grade 4 to 7 to see whether it will be possible to improve thinking skills in such a way that basic skills and social skills would improve as by product. The curriculum is not directly linked to classroom content as the curriculum is more focused to the process of thinking. Thus all supplementary time that school allocates to drilling remedial students in basic skills was used to enhance general thinking ability of the students. The project, which was carried out in more than 300 sites, was found to be successful in enhancing the thinking skills of students as well as their other basic and social skills.

Another approach to make learning meaningful for learners and found successful is activity based experiential learning. This is one of the Smart School teaching approach that teacher's feel is helpful to weak students. This approach however takes too much time but teachers need to complete the syllabus to prepare students for the examinations. Because of that teachers revert to the traditional methods of teaching. The HOTS approach mentioned above may not be feasible in our system too for the same reasons. It is conceivable that the curriculum for these students needs to be flexible and schools need to think of alternative ways of assessment for these students.

Another concern regarding meaningful learning of at-risk students is the lack of vocational subjects that would prepare students to the world of work, offered in the upper secondary level. Let us takes low performing students' placement in vocational electives in the year 2003, to illustrate this point. In 2002 the Ministry of Education began to offer vocational subjects as electives in academic schools. In that year, 104 schools offered these subjects and in 2003, an additional 104 schools did the same. Thus in the year 2003, approximately 208 schools offered these electives, each school taking in about 20 students per class and offering one to two vocational subjects. Thus approximately 4160 students were enrolled

in vocational classes in these schools in that year. Data provided by the Ministry of Education (2003) also shows that 1,108 students were enrolled in Vocational Training Center (NTVC) skills and 12,097 in vocational streams. Thus the numbers of places that can actually be offered to low performing students were 17,365 in the year 2003. The number of students without the minimum competencies in the PMR in 2002 was 144,977. Assuming 16,391 students dropped out after PMR in 2003, approximately **111,221** academically very weak students took purely academic subjects in that year.

Hence, it is not surprising that many students drop out of school after form four. It is only when the relationship between education and work is clear to these students that motivate them to stay on in schools. Obviously, relevant curriculum and meaningful learning for these students should be given more attention by those responsible for their education.

Definitely, places for vocational based subjects and electives in this field need to be increased for students who are not academically inclined. While the Governments' plan to gradually increase the number of schools offering the vocational subjects is commendable, these students also need to be helped extensively in the core academic papers needed for certification. Apart from that, their image and self concept need to be enhanced too. Vocational students are often labeled as not very bright, and some what rough in their behaviour, their teachers too are accorded lower status compared to teachers who teach courses taken by good students. The Ministry of Education should also monitor the schools' placement policy, as it is known that some schools also offer places in these subjects to higher performing students.

A narration of an impressive vocational technical school in the province of Winnipeg, Manitoba is warranted here. The school has about 25% of its students identified as at-risk. This large school of 1,200 students offers a variety of vocational, technical and academic subjects for students in grades nine to eleven. Resource teachers in small groups or one to one basis aid weak students. What is impressive is that students prepare for the world of work not only through the courses they take but also by developing a portfolio in which all their work is compiled ready for their resume when they need to apply for a job. Students hence will try their best to produce an impressive resume with good quality products for their assignments.

CHALLENGE NO.4: ENHANCE SCHOOL MEMBERSHIP-CHANGING THE CLIMATE OF AT-RISK SCHOOLS

All schools need to be conducive to the education of their students. However, there are some schools, which need to work harder because they have a substantial number of their students with discipline problems and low academic achievement. These schools are labeled as at-risk schools. Generally located in at-risk areas in urban locations and remote areas in rural locations, they need a lot of support from all quarters to heal. These schools apparently fail to make schools meaningful for their students, and to help them overcome their problems, either academic or behavioural. There are some schools labeled as at-risk in our country. Rosenholtz (1989), label these schools as sinking schools. In one of the states in this country, schools with poor UPSR results which were diagnosed to be in need of intensive care, were placed in 'ICU'. New leaderships were assigned to these schools to

heal them. Thus at-risk schools need a positive school climate which goes a long way into transforming these schools from being at-risk, to being excellent.

The findings of study involving Henry Gurney inmates (Sharifah et. al 1995) regarding what they liked and disliked about the school they once attended, revealed that they disliked schools that have strict and unfair teachers, discipline teachers, schools that are noisy, have long assemblies, schools that are small and dirty, with dirty toilets, having bad students, students fighting, schools with very little emphasis on co-curricular activities and lack of facilities. What is interesting from this finding is that, what these juveniles disliked about schools are what adults too feel are the negative aspects of schools. Hence, both at-risk students and those responsible for their education welcome changing schools to the better alike.

Research has shown that aggressive and transformative leadership practices, parental and community support, principals' and teachers' empowerment to make decisions, sensitivity to students' needs are some of the factors that may help these schools improve. One such school which did just that, warrant our deliberation here. The school is a large urban multicultural school with an enrollment of 3000 students. Both the students as well as the teachers were once labeled at-risk by the community at large. The new principal and the teachers work very hard at repackaging the school with new labels, slogans and well planned strategies and activities which enhance and develop the students' as well as the teachers' self image. Their assemblies are full of positive messages and celebrations of the school's success in the various co-curricular events that they participated in. Instead of just churning out demerit scores for breaking school rules, as is practiced in most schools, this school also gives merit scores for positive behaviour, in this way recalcitrant students can redeem themselves. The 'give and take' attitude of the school helps build a positive climate in the school.

The school now boasts of well-behaved students, proud of their school's many achievements in co- curricular activities at the district, state and national levels. The school received the 'Sekolah Harapan Negara' award, State level in2003, and Excellent Secondary School award, District level in 2002. There were 15 other awards conferred to the school since the year 2000, which acknowledged various aspects of management of the school. Apart from that it also received the Most Active Parent Teacher Association award for two consecutive years in the school district. The school also showed some improvements in the student's academic performance.

The school also tries to make learning and schooling interesting for the students. For example, in return for good academic performance and taking part in co-curricular activities, for succeeding in maintaining at least 80% school attendance and for zero discipline problems, students are invited to attend their graduation ceremony, complete with graduation robes and sumptuous dinner in a five star establishment at the end of their form five. Students look forward to this event and try hard to meet all the requirements needed for the invitation. The school's positive climate, with a culture of excellence in whatever they do have succeeded in re-labeling the school from at-risk to excellence. The experience of the school shows us that turning around an at-risk school, is not an impossible feat after all.

The literatures on effective schools in the developed countries abound with examples of school-wide reform programmes for at-risk students. The Accelerated Schools in the United States, specifically designed for students from at-risk backgrounds is an example. The schools set datelines for their low achieving students to achieve at par with main stream students. They employ creative and well-planned strategies which include imaginative and enriching teaching and learning approaches, flexible administration and full collaboration with the families and community at large. Students love going to school as these schools prove to be more enjoyable compared to what their home and their community can offer them.

Another example of schools that try to cater for the specific needs of at-risk students is the Alternative Schools. These schools are established outside regular schools or have intensive programmes within the normal public schools. The curriculum is tailor-made to the special interests of the students. The main aim of these schools is to prevent dropouts by enhancing the educational engagement and feeling of membership amongst these students. A positive school culture, committed teachers and creative teaching and learning approaches have helped create a brighter future for at-risk students even for those with serious behavioural problems.
We don't have such arrangements for the education of at-risk students in this country. What we have are juvenile prisons such as Henry Gurney and other probationary homes which offer schooling facilities for their inmates in their premises. These schools offer academic as well as vocational courses. The curriculum and teaching approaches in these schools are yet to be researched on.

MORE CHALLENGES AHEAD: THE "MUST DO"

We have seen from the discussion above, that much more need to be done for the education of at-risk students. We see schools as the main role players towards this end. Some of the changes that schools should make are free, such as their treatment and expectations of their students, teachers' creativity in their teaching approach, pure hard work and commitment by the schools' administrators and every one involved including parents and the community at large. To seriously help these students we must do the following;

a. Reduce class size

Reducing class size is costly, but it has to be done especially in the lower grades. Currently the average class size in our schools is 31, but in urban schools, a class size of 40 is not uncommon. Reducing class size goes a long way in helping students' learning especially in the lower grades. Fin (1998) reported on a large scale controlled study of the effects of reduced class size in 79 elementary schools in the State of Tennesse. In this study, children entering kindergarten were randomly assigned to three classroom sizes; small classrooms (13-17 children), regular classrooms (22-26 children) and regular classroom with full time teacher aides. The classes remained the same until four years. The findings show that children in the small classroom did better academically and displayed less disruptions or inattentive behaviour compared to their peers who had been in regular classrooms. Thus we see that reducing class size is a good investment, failure to do so, is costly.

b. Research based School Improvement Programmes

School improvement programmes must be research based and comprehensive. Teaching and learning approaches for students of various needs and background have to be researched. Differences in gender, culture, learning styles and abilities of the students need to be reckoned with. In our country there is a lack of research on teaching and learning approaches for struggling students especially in basic skills such as in languages and mathematics. Considering that many students in the secondary schools have low competencies in reading and writing, the late literacy programmes for secondary school students also need research and attention.

Research plays an important role in the Winnipeg School Division, Manittoba Canada in improving the learning of at-risk students. The Student At-Risk Innovation Grant is funding available to support action research at school level that targets the need of at-risk children. The majority of projects funded are literacy focused, others are numeric skill development, and programmes to enhance students' self esteem and motivation.

Our universities in collaboration with the schools and the departments of education should undertake more research, programmes and projects regarding all facets of at-risk children. Centres of Excellence for research on at-risk students at the national level need to be seriously considered. Research projects and centres of excellence for at-risk students are found in abundance in developed countries. Most big projects regarding at-risk students are government funded in these countries.

c. Collaborations with Partners

A very important source of help but not creatively utilized by schools are the families, the community, the District Education Officers, the universities, and the business community at large. Researches have shown that schools that enlist the help of these partners can help their at-risk students more effectively. Overburdened teachers especially need the help of discreet non-interfering partners to help ease their burden so that they can concentrate on their teaching. The District Education Department especially need to provide extra clerical services, teacher aides, consultants and experts such as reading consultants, social workers, psychologists, resource teachers as full partners of the schools. The career guidance and counseling services in schools need to be strengthened. At-risk students' families or care givers need the schools' initiatives to involve them and to help them take care of these children. In the United States attempts are made to educate parents through parent educators, help is extended through parent resource centres and other creative programmes to aid families of these children.

d. Change of Paradigm

We need to change the way we perceive at-risk students. We need to stop thinking that at-risk students are poor mentally and are unable to cope with challenging work. Providing them with only the basics in literacy and hands on skills will not help them survive in the post modern world, where knowledge economy and high technology are the order of the day. Hence schools need to challenge these students by exposing them to challenging tasks that require them to think critically and creatively. We need to subscribe to the belief

that every one can learn and that every one deserves the best education that we can offer. We must also believe that there are different kinds of intelligence which we can nurture and develop. We also should stop thinking that these students are unimportant just because they are generally poor and powerless. Their education and well being are important or else it is our nation that will be at-risk of failure and our quest for equality of opportunities will never be realized.

e. Attracting the best people into the teaching profession

Teaching students of diverse needs and background is complex and challenging. We need teachers, who are not only caring and emphatic, but also intelligent, independent learners who are creative and critical problem solvers. Hence we need to attract people with good academic qualification and co-curricular background into the teaching profession, support them in furthering their studies, train them well and give them the best salary that they deserve. Successful schools have attributed their success to the strength that are already in existence in the schools, namely the teachers and administrators. The teaching profession should be strengthened, with more autonomy given to the teachers and school administrators. Needless to say the working condition of teachers need also be attractive, in order to draw the best brains into teaching.

CONCLUSION

There is not much that we educators can do to change the socio-economic status, culture or family background of our at-risk students. But what we can do is to give 'our all' to the education of these students so they can change their family circumstances to the better and become productive citizens of the country. Schools should be a place where we compensate them for what is lacking in their homes in providing them with intellectual stimulations, care and understanding. This means that all programmes, policies and initiatives undertaken on their behalf should be given full commitment in terms of effort, research, financial support, monitoring, evaluations and the like. Programmes for at-risk students are the first to put on hold or even scrapped when there is not enough money in the coffer. It is time that we put their interest and well being at par with the others or else, shouldn't all of us educators be considered as recalcitrant, and deserving demerit scores too?

REFERENCES

Baas, A. (1991) Promising Strategies for At-Risk Youth. ERIC Digest No. 59. ERIC Clearinghouse on Educational Management Eugene OR.

Baker, J.A. *Teacher-Student Interaction in Urban At-Risk Classrooms: Differential Behavior, Relationship Quality, and Student Satisfaction with School.* The Elementary School Journal. Chicago (Sept. 1999). Vol. 100, Iss. 1; pg. 57, 14 pgs.

Banks, J. A. and McGee, C. (1993) *Multicultural Education: Issues and Perspectives.* Boston: Allyn and Bacon.

Barker Lunn, J.C. (1970) Streaming *in the Primary School.* London: National Foundation for Educational Research in England and Wales.

Druian, G. and Butler, J.A. *Effective Schooling Practices and At-Risk Youth: What the* Research *Shows.* School Improvement Research Series (SIRS).

Eder, D. J. (1981) *Ability Grouping as a Self-fulfilling Prophecy: A Macro analysis of* Teacher-*Student Interaction.* Sociology of Education, 54, 151-161.

Educational Planning and Research Division (EPRD). 2004.

Educational Planning and Research Division (EPRD). January 2002. Ringkasan Laporan Kajian Pelaksanaan Program Pemulihan Khas Di Sekolah Rendah. Ministry of Education.

Educational Planning and Research Division (EPRD). 2002. Quick Facts 2002: Malaysian Educational Statistic. Ministry of Education Malaysia.

Educational Planning and Research Division (EPRD). 2003. Quick Facts 2003: Malaysian Educational Statistic. Ministry of Education Malaysia.

Eric L & L Digest. Oct. (1997) *From At-Risk to Excellence: Principles for Practice.* Center for Research on Education, Diversity & Excellence (CREDE).

Finn, J.D. (April 1998) *Class Size and Students At Risk.* National Institute on the Education of At Risk Students, Office of Educational Research and Improvement U.S. Department of Education.

Grossen, B. Ph.D. (July 1996) *How Should We Group to Achieve Excellence with Equity.* University of Oregon.

Hargreaves, D.H. (1967) *Social Relations in Secondary School.* London: Routledge and Kegan Paul.

http://www.ed.gov/pubs/EdReformStudies/EdReforms/chap3a.html. *"Education Reforms and Students At Risk: A Review of the Current State of the Art".* January 1994.

Kulik, J.A. (1992) *An Analysis of the Research on Ability Grouping: Historical and Contemporary Perspectives* (RBDM 9204) Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.

Lacey, C. (1970) Hightown *Grammar.* United Kingdom: Manchester United Press.

Ministry of Education. (2003). Generating Educational Excellence through Collaborative Planning. Educational Development Plan 2001-2010.

Noraizah Shahruddin, Sistem Pengaliran: Proses Pembezaan, Polarisasi dan Pembentukan Sub-budaya Pelajar. Tesis Master Sains. Universiti Putra Malaysia.

Olatokunbo, S.F., Slavin, R.E. (1997) *Effective and Replicable Programs for Students Placed At Risk in Elementary and Middle Schools.* John Hopkins University.

Pallas A.M. (1994). *Ability – Group Effects: Instructional, Social, or Institutional? Sociology* of Education, vol 67 (Jan): 27-46.

Pogrow, S. *Challenging At-Risk Students*: Findings from the HOTS Program.

Sharifah Md. Nor. (1985). *Streaming in Malaysia Secondary Schools.* Ph.D. Dissertation University of *Wisconsin.*

Sharifah Md. Nor. (1991) *Streaming Practices in Malaysia Primary Schools: Implications for Alternative Arrangements.* Kertas Kerja Seminar Nasional Pertama mengenai Pengurusan Pendidikan pada 1-3 Ogos 1991.

Sharifah Md Nor, Kamariah Abu Bakar, Habibah Elias, Aida Suraya Hj. Yunus, Rahil Mahyuddin, Wan Zah Wan Ali, Rohani Ahmad Tarmizi, Samsilah Ruslan, Mohd. Fadzil Che Din, Yahya Othman, Fadzilah Abd. Rahman, Nurzaidatulshima Kamaruddin dan Siti Suria Salim. Profil, Masalah Pembelajaran Pelajar Kelas Lemah Di Sekitar Lembah Klang. Laporan Penyelidikan (In Press). Pusat Kajian Dasar 'CARE'. Fakulti Pengajian Pendidikan, Universiti Putra Malaysia.

Sharifah Md.Nor and Noraizah Shahruddin. (2001) *Lowest Stream Students Learning: The* Demotivating *Factor".* Paper presented at International Seminar Learning & Motivation: Insights from Multiple Perspectives, Penang. 8th -10th Oct.2001.

Sharifah Md. Nor, Norbani Nazeri and Mohd. Khalil Ruslan (1995) *Henry Gurney Residents:* Profile *and Perception of their Parents and Previous School.* Research Report. Ministry of Education, Faculty of Law, Universiti Malaya and Faculty of Educational Studies, Universiti Putra Malaysia.

Slavin, R.E. (1987) *Ability Grouping & Student Achievement in Elementary Schools. A Best* Evidence *Synthesis.* Review of Educational Research 57: 293-336.

Slavin, R.E. (1990) *Cooperative Learning: Theory, Research and Practice. Center for* Research *on Elementary and Middle Schools.* USA: The John Hopkins University.

Solon Community School District. DRAFT February 19, 2003. At Risk Plan of Services.

Spady, W. 1994. Choosing Outcome of Significance. *Educational Leadership* **51(6):** 18-22.

Tharp, R.G. (1997) *From At Risk to Excellence: Research, Theory and Principles for Practice.* Center for Research on Education, Diversity & Excellence (CREDE).

Utusan Malaysia (31 May 2004). Segment Pendidikan.

Wehlage, G. G., Rutter, R.A., Smith, G.A., Lesko, N. and Fernandez, R.R. (1988). *Reducing the Risks. London*: The Palmer Press.

Wehlage, G. and Rutter, R. (1986) *'Dropping out: How much do schools contribute to the problem?'*, Teachers College Record, 87, 3, spring pp. 374-92.

Winnipeg School District Manitoba Canada. (2004). Students At Risk Innovations Grant 2003-2004. Canada.

Woods, P. (1990) *The Happiest Days? How Pupils Cope with Schools.* London: Palmer Press.

APPENDIX A

Table 1. Number of Students Playing Truants by Stream

	School 2				School 1				School 3			
	2H	2L	4H	4L	2H	2L	4H	4L	2H	2L	4H	4L
Jan	0	19	10	22	0	10	2	13	3	19	8	37
Feb	0	19	20	30	4	13	5	14	5	22	10	18
Mac	0	17	20	26	3	17	4	19	11	18	16	21
April	0	24	14	27	5	21	11	NA	11	22	14	21
May	0	19	15	24	5	12	9	6	13	15	12	17

Source : Sharifah and Noraizah (2001)

H: Highest Stream
L: Lowest Stream

Table 2a. Percentage of Students Involved in Discipline Problems by Stream (2003)

	Stream		Stream		Stream		Stream		Stream	
	1H	1L	2H	2L	3H	3L	4H	4L	5H	5L
JANUARY	10%	35%	6%	24%	5%	10%	4%	25%	2%	21%
FEBRUARY	8%	30%	2%	23%	3%	15%	2%	27%	1%	23%
MARCH	11%	25%	6%	15%	2%	15%	3%	30%	2%	16%
APRIL	8%	15%	5%	6%	2%	16%	2%	20%	3%	15%
MAY	6%	17%	7%	14%	4%	14%	2%	33%	1%	21%
JUNE	4%	23%	4%	16%	2%	17%	3%	26%	2%	23%
JULY	10%	16%	6%	19%	3%	18%	4%	21%	3%	16%
AUGUST	6%	15%	4%	16%	1%	13%	2%	25%	1%	17%
SEPTEMBER	7%	19%	5%	20%	2%	10%	5%	32%	2%	18%
OCTOBER	11%	21%	8%	26%	9%	26%	4%	35%	2%	21%
NOVEMBER	12%	28%	9%	33%	10%	21%	4%	32%	2%	19%

Source: A FELDA school (2004)

Table 2b. Statistic of Student amongst Juveniles Involved In Crimes, 2001

Type Of Crime	Juvenile	Students	Percentage %
Murder	19	7	36.84%
Attempted Murder	0	0	-
Gang Armed Robbery (Section 395/397 Panel Code)	22	6	27.27%
Gang Armed Robbery (Section 392/395 Panel Code)	11	4	36.36%
Armed Robbery (Section 397 Panel Code)	53	12	22.64%
Robbery (Section 397 Panel Code)	42	9	21.43%
Rape	117	31	26.50%
Causing Injury	223	128	57.40%
NO. OF VIOLENT CRIME	**487**	**197**	**40.45%**
Housebreaking and theft (day)	34	58	43.28%
Housebreaking and theft (night)	518	125	24.13%
Snatching and other theft	660	187	28.33%
Vehicle theft	1172	370	31.57%
NO. INVOLVING IN PROPERTY CRIME	**2484**	**740**	**29.79%**
TOTAL	**2971**	**937**	**31.54%**

Source: Crime Prevention Foundation Malaysia

Table 4. No of students not achieving minimum levels of competency in UPSR based on location

	Urban	Rural
BM (comprehension)	8.81	12.5 %
BM (Writing)	14.31	21 %
English Language	32.5	48.1 %
Mathematic	19.5	27.3 %

Source: Ministry of Education

Table 5. Percentage of Passes in Core Subjects Based on Streams (Final Results 2003)

	Stream		Stream		Stream		Stream		Stream	
	1H	1L	2H	2L	3H	3L	4H	4L	5H	5L
Malay Language	100%	50%	100%	97%	100%	60%	100%	62%	100%	68%
English	90%	0%	90%	30%	98%	33%	100%	5%	96%	2%
Mathematic	89%	15%	100%	50%	100%	45%	100%	2.5%	100%	10%
History	60%	20%	80%	43%	96%	52%	100%	15%	65%	15%
Living Skill	100%	25%	100%	100%	100%	98%	-	-	-	-
General Science	50%	3%	83%	33%	97%	45%	-	20%	-	25%
Geography	100%	30%	100%	85%	100%	78%	-	-	-	-

Source: A FELDA school (2004)

Table 6. Percentage of Passes in Core Subjects Based on Stream and Forms (1st Term Exams)

	School 1				School 2				School 3			
	2H	2L	4H	4L	2H	2L	4H	4L	2H	2L	4H	4L
Malay Lang.	95.2	38.2	93.2	63	100	3.7	100	59	100	17	93.8	12.5
English Lang.	88.1	41.9	97.8	33	94.4	0	96	12	88.9	14	71.9	0
Mathematics	87.8	12.9	68.2	8.7	97.2	0	54	0	75	3.7	87.5	0
History	97.6	38.7	34.1	30	92	0	58	14.7	77.8	11.1	75	25
Living Skill	100	35.5	-	-	100	7.6	-	-	100	48.1	-	-
Gen.science	70	12.9	-	27	100	7.4	-	8.8	86.1	0	-	-
Geography	66.6	12.9	-	-	100	0	-	-	100	6.9	-	-
Physic	-	-	65.9	-	-	-	25	-	-	-	93.8	-
Chemistry	-	-	38.6	-	-	-	23	-	-	-	50	-
Biology	-	-	47.2	-	-	-	29	-	-	-	93.1	-
Commerce	-	-	-	27	-	-	-	3	-	-	93.1	-

Source: Sharifah and Noraizah (2001)

H = Highest Stream
L = Lowest Stream

Table 8. Students Perception of Their Own and Class Educational Engagement, Lowest and Highest Stream

	Higher Stream		Lowest Stream		Chi² (fi)	Sig.
Item	**Agree**	**Disagree**	**Agree**	**Disagree**		
I don't enjoy goingl to schoo	21 (10.8%)	174 (89.2%)	81 (47.4%)	90 (52.6%)	60.709	0.000
I often feel lazy to go to school	44 (22.6%)	151 (77.4%)	84 (49.1%)	87 (50.9%)	28.258	0.000
I am not interested in learning	22 (11.3%)	173 (88.7%)	69 (40.4%)	102 (59.6%)	41.209	0.000
Whether I learn or not will make no difference to me. I will still do poorly in the exams.	63 (32.3%)	132 (67.7%)	79 (46.2%)	92 (53.8%)	7.404	0.007
I don't care if I fail the exams	20 (10.3%)	175 (89.7%)	59 (34.5%)	112 (65.5%)	31.645	0.000
I am not interested in learning because the subjects taught do not meet my needs	44 (22.6%)	151 (77.4%)	57 (33.3%)	114 (66.7%)	5.288	0.021
Some students in class cause disruptions in class because they are bored with the teachers' teaching	35 (17.9%)	160 (82.1%)	50 (29.2%)	121 (70.8%)	0.514	0.008
I know that most of my classmates are interested in learning	159 (81.5%)	36 (18.5%)	113 (66.1%)	58 (33.9%)	11.404	0.001
Most students in my class are not interested in learning because they know they won't be clever if they do	43 (22.1%)	152 (77.9%)	58 (33.9%)	113 (66.1%)	6.421	0.008
Most of us often try hard to get good grade in the exams	176 (90.3%)	19 (9.7%)	113 (77.8%)	38 (22.2%)	10.790	0.001
Some students in disruptions in class because they are bored with the teachers' teaching	35 (17.9%)	160 (82.1%)	50 (29.2%)	121 (70.8%)	0.514	0.008
There are students in my class who prefer to sleep in class	59 (30.3%)	136 (69.7%)	98 (57.3%)	73 (42.7%)	27.222	0.000
Most students in my class do not know our goals for coming to school	77 (39.5%)	118 (60.5%)	102 (59.6%)	69 (40.4%)	14.821	0.000
Most students in my class obey school rules	102 (52.3%)	93 (47.7%)	65 (38.0%)	106 (62.0%)	7.505	0.004

Source: Sharifah and Noraizah (2001)

Table 9. T. Test: Students Perception of Individual Educational Engagement by Highest and Lowest and Streams

	Mean	S.D.	t	df	Sig.(2-tailed)	N
			FORM 2 & 4			
H.S.	35.9179	4.2830	9.244	364	.000	195
L.S.	31.1345	5.5951				171
			FORM 2			
H.S.	36.1226	4.2307	6.374	181	.000	106
L.S.	31.3896	5.8177				76
			FORM 4			
H.S.	35.6742	4.3557	6.505	181	.000	89
L.S.	30.9255	5.4284				94

Source: Sharifah and Noraizah (2001)

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