



**EDUCATION**

## EDUCATION PANEL

# STRATEGY AND RECOMMENDATIONS AT A GLANCE

The Next Decade:  
**Strengthening our  
Community's Architecture**

*Creating a community of  
inspired learners*



# BACKGROUND

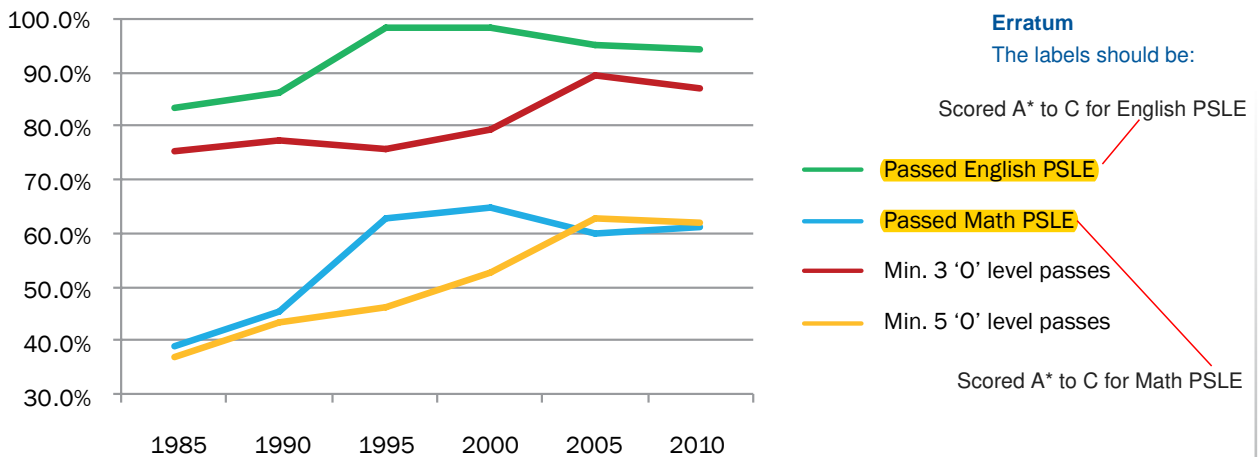
Statistical data from the Ministry of Education on the educational performance of Malays in Singapore from 1985 to 2010 (Graph 1) reveals that the percentages of Malay students achieving a minimum of three and five 'O' level passes have increased over this 25-year period. However, there has been a slight decline in the percentage of Malay students passing both PSLE English and Mathematics over the last ten years.

## Erratum

This sentence is inaccurate. It should be:

However, there has been a slight decline in the percentage of Malay students scoring A\* to C in PSLE English and Mathematics over the last ten years.

**Graph 1: Malays Educational Performance at PSLE and GCE 'O' Level between 1985 and 2010**



## Erratum

The labels should be:

Scored A\* to C for English PSLE

Passed English PSLE

Passed Math PSLE

Min. 3 'O' level passes

Min. 5 'O' level passes

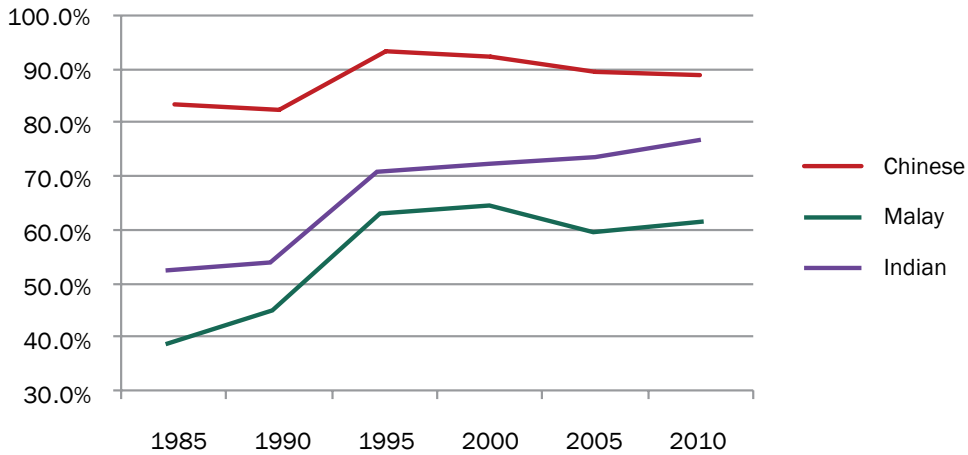
Scored A\* to C for Math PSLE

Source: Ministry of Education, Singapore (1985 - 2010).

Graphs 2 and 3 show that the achievement gap in Mathematics that is evident through the PSLE results over the years still remains at the end of secondary schooling. This is worrying since achievement in Mathematics is critical for entry into post-secondary institutions such as Junior Colleges, Polytechnics and Universities. Without a firm foundation in Mathematics, Malay students stand at a disadvantage in charting successful pathways through their schooling careers. The data also suggests that students who fail to develop competency in Mathematics at

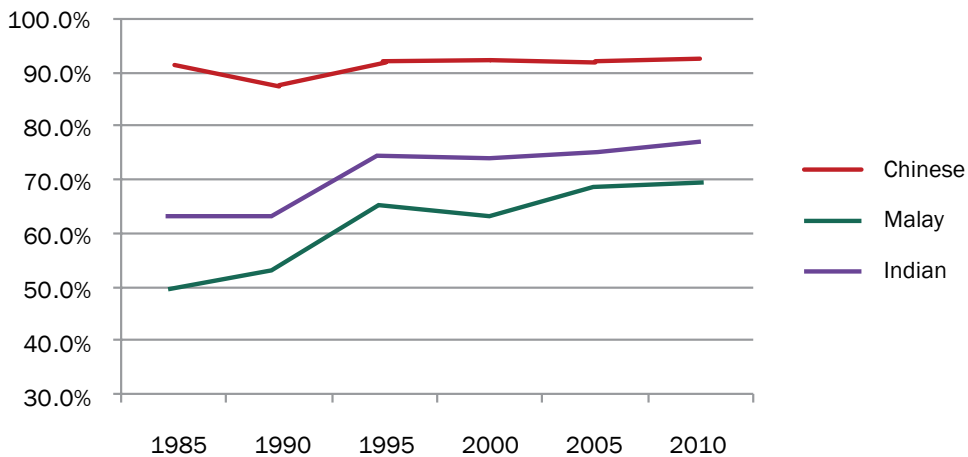
the primary level have a lesser chance of catching up and mastering the subject at the higher levels.

**Graph 2: Percentage of PSLE Students Who Scored A\*-C in Standard Mathematics By Ethnic Group**



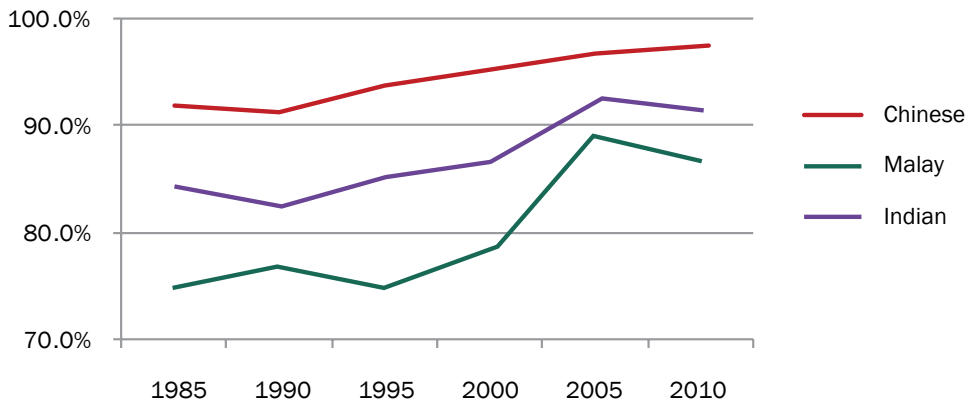
Source: Ministry of Education, Singapore (1985 - 2010).

**Graph 3: Percentage of Students Passing Mathematics at 'O' Level By Ethnic Group**



Source: Ministry of Education, Singapore (1985 - 2010).

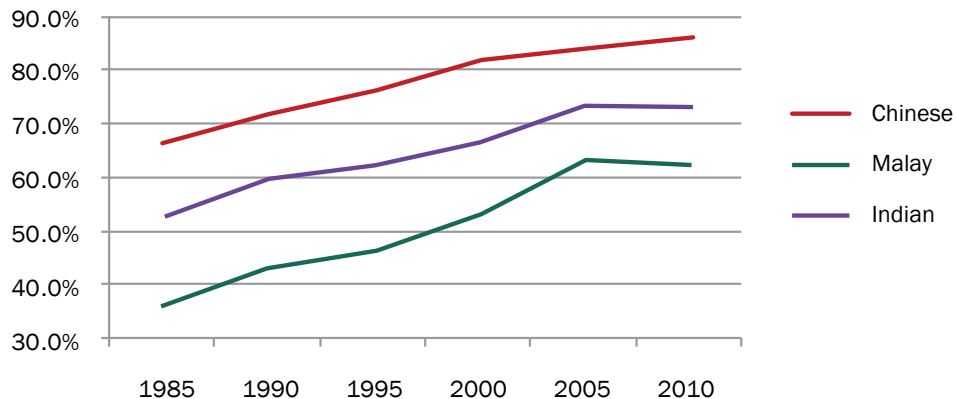
**Graph 4: Percentage of Pupils With At Least 3 'O' Level Passes By Ethnic Group**



Source: Ministry of Education, Singapore (1985 - 2010).

The data in Graphs 4 and 5 depict the percentage of pupils from the three major ethnic groups attaining at least 3 'O' level passes and 5 'O' level passes between 1985 and 2010. These graphs show that the Malays are still lagging behind other ethnic groups and that their overall performance in the 'O' levels appears to have declined slightly since 2005.

**Graph 5: Percentage of Pupils with at Least 5 'O' Level Passes by Ethnic Group**



Source: Ministry of Education, Singapore (1985 - 2010).

A student's performance in the GCE 'O' level examinations is a crucial foundation for his/her success in tertiary institutions. As seen in these graphs, the academic performance of Malay students is lagging behind those of other ethnic groups. This may result in limited employment opportunities for the Malay community vis-à-vis the other ethnic groups in the country.

The under-representation of Malay achievers is especially discernible in the top tiers of the educational ladder. Table 1 compares the figures for highest educational qualification attained for the different races in Singapore for the years 2005 and 2010. A comparison of these figures suggests that the percentage increases in the number of Malays attaining secondary, upper secondary, and polytechnic qualifications are comparable to those of the other races. However, the percentage of Malays obtaining university degrees is more than three times lower than the average percentages among all races.

**Table 1: Highest Qualification Attainment of Malays Compared to All Races**

Highest Qualification Attained	Malays (%)		All races (%)	
	2005	2010	2005	2010
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Incomplete Secondary	35.4	10.9	23.2	9.0
Secondary	18.0	29.0	11.9	19.5
Upper Secondary	7.6	24.5	10.7	12.7
Polytechnic	3.5	15.6	6.0	18.4
University	5.1	6.8	22.4	28.3

*Source: G Shantakumar, Singapore Malays in the New Millennium: Demographics and Developmental Perspectives, 2011.*

Table 2 shows that between 1990 and 2010, the percentage increase in number of Malays attaining both Polytechnic qualifications and 'Other Diploma and Professional' qualifications is higher than the national average. This is encouraging as it suggests that Malays are making progress in their academic performance. However, the achievement gap

at the university level between the Malays and the rest of the population remains particularly prominent.

**Table 2: Percentage of Malay Attainment of Higher-Level Qualifications Compared to All Races**

Highest Qualification Attained	Malays (%)			Total (%)		
	1990	2000	2010	1990	2000	2010
<b>Polytechnic</b>	0.9	2.9	15.6 (↑12.27)	3.5	6.2	18.4 (↑12.2)
<b>Other Diploma and Professional Qualification</b>	NA	5.1	11.6 (↑6.5)	NA	11.1	14.8 (↑3.7)
<b>University</b>	0.6	2.0	6.8 (↑4.8)	4.5	11.7	28.3 (↑15.6)

Source: G Shantakumar, *Singapore Malays in the New Millennium: Demographics and Developmental Perspectives, 2011.*

Taken together, these figures suggest that the achievement gaps between the Malays and the other ethnic groups in Singapore begin in the earlier years of schooling and widen in the later years of post-secondary education. These gaps remain persistent and current attempts to narrow them have not met with much success. Although Table 2 above provides evidence that there are Malays who try to make up for their under-achievement in their later years, it is a situation of there being too few sustained achievers to raise the average levels of academic success in the community.

One way to ameliorate this situation is to provide more opportunities for current Malay polytechnic graduates to further their studies and attain a university degree. This can be realised through the provision of bursaries, scholarships, and loans. It is hoped that the more successful and affluent members of the Malay/Muslim community can step forward to contribute to the enlargement of this pool of monetary resources.

### **Environmental Scan & Perception Survey**

The education discourse can generally be categorised into two broad

categories – learning and teaching. The current point of contention pertaining to underachievement among Malay/Muslim students has generally been framed in terms of the students' low socio-economic status, lack of parental involvement, and the lower quality of non school-based supplementary programmes like tuition. These are aspects of learning abilities in which Malay/Muslim organisations have made immense contributions in the past two decades.

The other aspect which warrants further examination and calls for greater involvement from Malay/Muslim organisations is the teaching aspect. These are issues relating to curriculum, pedagogy, teacher training and qualifications, school infrastructure, facilities, school leadership and management. Good teaching must take place for effective learning to happen. While some students may perform well in school regardless of the approach taken in teaching, most, however, will only do well when the pedagogy and curriculum are specifically designed to meet their learning needs. These are the issues which need to be addressed in tackling the community's underachievement in education.

Some of the causes for educational underachievement of Malay students in Singapore can be characterised as follows:

**i. Weak literacy and numeracy skills**

Excelling in Mathematics and English is critical for students to do well in school, especially at the primary and secondary levels. However, despite the introduction of mastery programmes by Malay/Muslim organisations (MMOs) to tackle Malay students' weakness in English and Mathematics, feedback from educators suggests that many Malay students still lack a strong foundation in these subjects. As reflected in the statistics, the numerous Math-based programmes and English reading headstart programmes have yet to make a significant impact in improving the situation.



**ii. Lack of socio-emotional competencies for sustained academic success**

Feedback from teachers also suggests that Malay students generally do not exercise productive habits of mind in their daily school work. Traits such as diligence, resilience and perseverance appear to be lacking among many Malay students. Many remain unmotivated and uninspired to do well in school. There is a need for students to be more attuned to current educational realities in order to survive in an increasingly competitive world. Parents and guardians should also be more involved in their children's/wards' learning process.

**iii. Self-defeatist vision of academic success**

Recent findings from a perception study commissioned by AMP in 2011, provide us with a clearer picture of Malays' 'self-defeatist' perceptions of academic success. Below are some pertinent data:

- 73% of Malay/Muslim parents feel that the cost of education is an obstacle that might affect their children's ability to succeed. These parents also feel that their children's grades might not be good enough for them to gain entry into tertiary institutions and that they will also face competition for places in the local universities.
- 52% of Malay/Muslim parents think that it is not realistic for them to send their children overseas to study in a foreign university. A majority of them cited financial affordability as the main reason.
- Almost half of the parents who participated in the survey mentioned that the lack of interest or ambition in their children might impede their ability to obtain university education. Even more worryingly, 25% of parents said that their children do not want to go to a university.

- The survey found that 68% of parents claimed they were involved in their children’s education. Such claims, however, were inconsistent with their actual involvement in activities relating to their children’s education. For example, more than 70% said they are not involved in ensuring homework routines and habits are maintained. Additionally, 90% of them said they do not help their children prepare for exams and tests or provide additional home learning/education.
- Almost 50% of Malay/Muslim parents do not enroll their children in courses outside school hours. Most said they do not see the need for it or that they are unable to afford the money for these courses. These responses reveal that certain self-limiting beliefs and mindsets may be responsible for educational underachievement among the Malays. Families that do not encourage their children to excel academically will eventually fail to break out of a “vicious cycle” of self-fulfilling prophecies about educational underperformance. The perceived high costs of tertiary education, while valid to some extent, is not an obstacle to the educational aspirations of Malay/Muslim students given the availability of national resources.

## THE WAY FORWARD

### **Providing Malay/Muslim students with quality learning infrastructure**

There is a need to open up more avenues of learning for Malay/Muslim students in the form of good schools, educational resources such as Information and Communications Technology (ICT), private tutoring and enrichment programmes. Many underachieving Malay/Muslim students

come from low-income or broken families. They often do not have the means, opportunities and necessary information to tap on resources, programmes and services.

Providing underachieving students with enhanced learning opportunities require more than just quality infrastructure such as well-equipped schools and enrichment programmes. Professional services of knowledgeable, skillful, and caring teachers who understand how to reach out to different kinds of underachievers – including Malay/Muslim underachievers – through culturally sensitive pedagogies are equally needed. Such pedagogies involve teaching approaches and strategies that take into account the ways in which a learner’s cultural background shapes his/her self-concept, beliefs, attitudes, motivations and aspirations. The famous Escalante Math Programme at Garfield High School in East Los Angeles has demonstrated how such responsive and inclusive pedagogies draw on the cultural strengths and resources of students’ homes and communities in developing curricula that connect academic subjects to the everyday concerns and interests of students.

However, it appears that there are not many teachers who have been specially trained to meet the challenges of culturally relevant pedagogy. This may be due partly to the fact that there are currently no provisions for such kinds of teacher training and professional development by MOE and NIE. While there are teacher education courses and professional development programmes (pre- and in-service) that cater specifically to gifted and talented learners, there are hardly any specialised courses to prepare teachers to nurture and develop students from poor and ethnic minority backgrounds in neighbourhood school settings. Teachers assigned to teach large classes with Malay students, for example, should possess the knowledge, skills and dispositions to guide, motivate and inspire these students based on a deeper understanding of their

particular struggles and needs (such as the need to overcome defeatist notions of academic success). In addition, Malay students also lack access to role models and mentors to spur and guide them along. For example, if appropriate, Malay-Muslim teachers can represent these positive role models in the classrooms especially for critical subjects such as Mathematics, Science and English.

Good teachers, like struggling learners, also need more support. Students in independent schools and the elite programmes (e.g. the Gifted Education Programme) often enjoy smaller-than-average class sizes, better-trained and better-paid teachers, and a customised and enriched curriculum that pushes them to excel in a culture of competitive achievement. In contrast, there are fewer specialised resources allocated per head to struggling students across the Normal Streams. Clearly, in recent years, the Ministry of Education (MOE) has been paying more attention to the needs of the “less academically inclined” students in the Normal Streams while at the same time, putting in increased efforts at improving educational provisions for the Institutes of Technical Education (ITE). This is a welcomed development that needs to be stepped up in the coming years. By training teachers and school leaders to implement research-informed pedagogical approaches and curricular programmes tailored to the special needs of all underachieving students – a sizable percentage of which are Malay students in neighbourhood schools – the imbalance will be addressed.

### **Long-term commitment to ensure continuity of positive learning experiences**

Any strategic plan to improve the educational outcomes of the Malay/Muslim students must be practicable with respect to the availability of resources within and from outside the community. Designing and implementing educational programmes that simultaneously affirm the

need for affective (socio-emotional) growth and cognitive development, for instance, requires considerably more resources than are presently provided for by schools, MOE and the National Institute of Education (NIE). An inclusive vision of education reform based on the goals of excellence and equity for all has certainly been materialising over the last decade, particularly following the unveiling of MOE's vision of "Thinking Schools Learning Nation" in 1997. What is now needed as part of this continuing progress are more theoretically-informed and research-based pedagogical approaches (e.g. culturally responsive/relevant pedagogy) that can attend to the particular affective and cognitive needs of underachievers, particularly the Malay students.

Such an approach will certainly take time to implement on a large scale. Hence, there should also be consistency, continuity and commitment in adhering to the strategic framework of recommendations. This will entail organisations such as AMP and other stakeholders to mobilise a concerted and collaborative effort between students and teachers, parents and children, school principals and teachers, social workers and school counsellors, educators as well as other professionals and non-professionals in the years to come. For instance, it is envisaged that the Convention will bring about opportunities for synergy between various panels involved in the Convention. As an example, the Education Panel's proposals could be synergised with the programmes of the other panels such as the Social Panel's recommendation to establish a Parent School. Such collaborations will hopefully lead to the achievement of the vision of a community of inspired learners. If we are successful in this endeavour, we may witness a significant increase in the number of Malay graduates in the next ten years.

# STRATEGY

## ***Creating a community of inspired learners***

Previous strategies aimed at improving students' academic achievement have generally focused on developing the cognitive competencies needed for the mastery of academic subjects. For example, tuition classes and PSLE preparation courses tend to focus on the transmission of disciplinary knowledge and skills needed to pass examinations.

While there has been no clear effort to track the progress of students undergoing these programmes, it would appear that these academic initiatives have not been able to produce significant improvements in terms of both the quantity and quality of school graduates among the Malay/Muslim community.

It can be surmised that the dominant pedagogical approaches in these cognitive mastery classes pay insufficient attention to the affective and socio-emotional dimensions of learning. Motivational classes and programmes are also few in number and are often one-off affairs. Consequently, students who undergo motivational courses are inspired only in the short-term as no provisions are made to sustain their motivation or to address the specific socio-emotional challenges in mastering particular subjects such as Mathematics and English.

There is a need to think out of the box rather than rely on the same unsuccessful strategies such as providing more academic enrichment programmes that adopt the same ineffective pedagogical approaches. The goal of "creating a community of inspired learners" demands more attention be placed on educational strategies that can inspire Malay/Muslim learners at all levels to exceed their own expectations of academic success. This in turn requires that the entire Malay/Muslim community learn to embrace high standards and expectations for themselves and

others in the community, regardless of age, gender and socio-economic status.

The recommendations put forth in the following section envisage strategies and measures aimed at inspiring Malay/Muslim youths and sustaining their motivations and aspirations. It intends to achieve this via a three-pronged approach.

## RECOMMENDATIONS

### ***Recommendation 1: Graduates in every family***

Research has shown that if students from an ethnic group are consistently defined as underachievers, they will tend to see themselves in this light and act in fulfillment of these definitions. In other words, a learner's self-concept is influenced by peers, adults and public perceptions. His/her self-concept also develops through everyday interactions with others in the school and at home. Negative or defeatist beliefs about the academic potential of the Malay/Muslim community can be transmitted through these social interactions, which can in turn negatively influence Malay students' self-concepts.

This phenomenon of socially acquired negative self-concepts is seen as one of the main obstacles retarding the motivations of our youths. A proposed solution is to expose these students to as many "scholastic success stories" as possible. Introducing these students to positive role models in the community can counter general perceptions of inadequacy within the community. This requires that more opportunities be created for students to engage with successful Malay graduates whom they can learn from and look up to.

The term “graduates” must be taken to be inclusive of all achieving students who have completed their programme of education, for example, ITE and polytechnic graduates. Thus the tagline “*Graduates in every family*” serves to ensure that the strategy remains very much a goal within the reach of every Malay/Muslim family. Nevertheless, to ensure that the community does not fall into the trap of mediocrity, the ultimate goal will be an increase in number of university graduates. This is what the community must envision for each of its learners. Based on feedback collated in a previous research exercise, the following recommendations are suggested:

- Campaign for Malay/Muslim Organisations’ support in consolidating and channelling funds from all available sources to support students’ further education;
- Embark on a public awareness programme to increase awareness of the value and importance of having graduates in every Malay/Muslim family;
- Pool resources and expertise to establish advisory channels for learners who need advice and encouragement in order to achieve their goal of higher education.

### ***Recommendation 2: Establishment of an education research centre***

Currently, research centres on Islamic and Malay issues such as the Centre for Research on Islamic and Malay Affairs (RIMA), a subsidiary of AMP, undertakes research programmes and activities to address long-standing and contemporary issues facing Islam and Malay/Muslims in areas of education, employment, religion, society, politics, women, and youth. These research reports and data should be made easily accessible to other interested parties for the purposes of discussion, reflection, and further research. Such works should also be collated and catalogued to



facilitate searching, referencing, and exchange among interested parties. We propose that a centralised depository of information and scholarship on Malay/Muslim issues be established to serve the wider interests of the Malay community. Housed in one shared 'library', the depository should not only comprise works undertaken by local Malay/Muslim organisations throughout the years, but also the substantial body of scholarship in Singapore and around the world that is broadly related to the research areas identified by centres such as RIMA. In general, this one-stop research venue will act as a 'clearing house' for significant scholarly publications, technical reports, government statistics, press releases, and news articles that will be relevant to the work of researchers and academics in the various disciplines. Part of the function of this 'clearing house' is the organisation of research into the following categories:

- Descriptive and documentary data – e.g. longitudinal quantitative data, culled from government press releases, on performance gap between Malays and other races by subject and level
- Empirical research – e.g. studies of programme effectiveness and intervention projects aimed at Malay/Muslims in various social, institutional and educational settings
- Critical interpretive research – e.g. sociological, educational, historical, and political scholarship analysing the challenges faced by the Malay/Muslim community in Singapore

It is proposed that the members of this unit work in collaboration with local research centres such as RIMA to locate all existing archives, libraries, and data repositories within the MMOs, which they will then consolidate in the form of online searchable databases and annotated bibliographies. The members of this research unit should include researchers and scholars from local universities or members of the local research bodies.

In relation to the issue of research in the area of education for the Malay/Muslim community, it is perceived that there is currently a lack of empirical research investigating the effectiveness of pedagogies specially designed for students of lower socio-economical status (SES) or those from different ethnic backgrounds in Singapore. The proposed research centre must then seek to spearhead efforts by educational researchers in Singapore to study the efficacy and feasibility of “culturally relevant pedagogies” that are customised for the particular interests, needs, and cultural backgrounds of primary and secondary school students from the Malay/Muslim community.

In summary, the aims of this one-stop research centre are:

1. To function as a depository of significant scholarly publications and relevant resources;
2. To harness the community’s expertise and resources in understanding and dealing with issues pertaining to educational under-attainment;
3. To track and monitor student achievement;
4. To pilot programmes that supplement mainstream educational programmes; and
5. To ensure adherence to the larger strategic education framework of MOE.

### ***Recommendation 3: Developing motivated learners***

Research on community outreach programmes conducted by non-governmental organisations (NGOs) and MMOs showed that many activities catering to youths do have the potential to inspire individuals from the community via the process of “conscientisation.” The term is described by Paulo Freire, a notable Brazilian educator and theorist of critical pedagogy, as the development of a particular kind of critical consciousness. In the case of Singaporean Malay/Muslim youths, it involves experiences that serve to increase their capacity to think more critically about the status of their community..

These experiences occur when:

i. *Effective dialogue and continuous reflection takes place*

In its simplest sense, dialogue as an educational approach can be seen as conversations taking place that are underpinned by specific 'rules of engagement'. Participants are invited to share and listen to one another's 'stories', stressing receptivity and the absence of judgement. In such activities, the inherent tendency to reflect is triggered and this, thus, differentiates conversation from dialogue. It engages and bonds participants emotionally resulting in understanding and awareness of each other's life experiences thus creating the drive to improve their collective well-being. Naturally, this must begin with the students wanting to excel in school.

ii. *Reflexive learning takes place as part of the experiential process*

Individuals gain personal insight into the lives and worldviews of other individuals when they make use of the opportunity to participate in processes of experiential and reflexive learning. This arises when they physically interact with lesser fortunate individuals during occasions such as charity projects where they participate in activities such as the distribution of food or essential items to the needy, specifically those from their own community. Such activities serve to create awareness on the plight of underprivileged Malay/Muslims triggering a sense of compassion, sympathy and the need to create improvements in the lives of others. The corollary is that these youths will also begin to look inwardly and come to the self-realisation that they should not allow their own lives to end up in similar circumstances. The motivation to improve in their studies will thus be ignited.

iii. *Ethnically non-exclusive programmes are carried out to create opportunities for the development of intercultural understanding*

By providing Malay youths with opportunities to genuinely engage with others not from their own community during activities such as inter-faith dialogues or intercultural celebrations, they will become more exposed to the diversity of perspectives existing in our multi-cultural society and are no longer preoccupied with their own. With the realisation that the world is no longer about judgements but about perspectives, they become more aware of their own cultural 'blind spots'. In providing opportunities where they will be able to establish interpersonal connections with others, emotional sensitivity can be acquired and a more cosmopolitan identity, along with greater confidence, will emerge over time. Feelings of insecurity and perceptions of inferiority especially in the area of academic performance will thus be mitigated and a renewed desire to be on par, if not better, than the other ethnic groups, will arise.

iv. *A sense of empowerment and ownership exists over a community project's development and progress*

Empowerment and ownership over a community project's development and progress can be in the form of conceptualising and delivery of projects such as national level quizzes or public concerts. The opportunity to make decisions, shoulder responsibility and the chance to enjoy recognition when the end result is well-received will create a sense of personal value and fulfillment in the individual. This is then translated to a further heightening of motivation resulting in these students being inspired to apply their freedom of choice and action in shaping their own lives and accomplishing their personal goals. Of course, this will begin with the desire to perform well academically. The

hope is that once a critical mass is reached, empowerment can collectively be experienced at the communal level.

v. *Opportunities for the exercise of leadership exist alongside mentors acting as role models.*

While the opportunity to take on leadership positions is in itself a positive experience, the more important consequence in the case of Malay/Muslim youths is the impact that such opportunities have in creating a conscientised mind. Research shows that spending time with a living, breathing model of effective behaviour provides individuals with the chance to directly experience, internalise, and ultimately emulate what is observed. The mentor acts as a role model for effective leadership while at the same time provides the protégé with honest feedback. In order to guide the protégé in determining the correct course of action, the mentor constantly questions and seeks clarification on the desired objective for every action decided upon by the appointed leader. Under the guidance of a mentor, the youth is then transformed into an informed, enlightened and conscientised leader who aspires to improve himself/herself so as to subsequently become an effective mentor to others.

Taken together, these five experiences will create an impact by increasing young Malay/Muslims' capacity to think more critically about the status of their ethnic group. Subsequently, they will be activated in their desire to achieve progress for themselves, specifically in their academic performance, driven by the awareness that their actions will subsequently contribute to raising the status quo of their community.

The third strategy proposed thus attempts to leverage on these five kinds of experiences so as to improve the educational performances of Malay/Muslim learners. Essentially, it aims to refocus attention on the affective domain of teaching and learning, whereby social-emotional outcomes (e.g. positive self-concept, motivation to succeed, high aspirations) can be aligned with the development of cognitive outcomes (e.g. knowledge and skills needed to excel academically). This shift in focus acknowledges that educational achievement involves an inseparable affair between affective (i.e. related to emotions, motivations, beliefs, and values) and cognitive processes (i.e. to do with reasoning, thinking, and rationalising) – a view that is well supported by research in cognitive science and behavioural psychology. In the context of the “Malay problem,” it is important to recognise the extent to which affective processes exert a vital influence on Malay students’ cognitive abilities and academic achievement. It can be argued that while current curricula and pedagogical practices in schools have enabled motivated students to excel in subjects such as Mathematics and Science, they have nevertheless failed to engage the less motivated students in assuming responsibility for their own learning.

The strategy therefore requires that the community:

- Explore ways in which current programmes can be re-shaped to achieve the targetted affective outcomes; and
- Formulate new approaches to enhance learners’ competencies in ways which will complement the affective outcomes and vice-versa.