Measures to Improve Students' Learning in Maltese Secondary Schools (when reform takes place)

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Introduction

"…Low-achieving students span the full range of intellectual abilities and gifts. Some are highly intelligent in multiple areas but become bored with the traditional academic experiences encountered in schools. For very bright low-achievers, the classroom instructional experience lacks sufficient challenge and does not further their intellectual endeavors. For students who are not as intellectually precocious, the classroom does not support their learning needs. These experiences fail to stimulate these low achievers' interests in learning. Relevance for learning, the appropriate cognitive challenge, and the personal needs of the learner are too often not addressed in the design and delivery of instruction.

Low achievement in schools manifests itself as refusing to participate in class activities, failing to complete homework, displaying hostility and disruptive behavior in class, day-dreaming or exhibiting poor attention spans, making little or no eye contact with the instructor, constantly offering excuses for incomplete assignments, and having excessive unexplained absences. Low achievers simply do not see the need to participate in the school experience" (Stiff-Williams, 2002, p. 19).

(A) Curriculum Development

"There is no reason why the only, or even the best, ways of furthering [educational] aims should be traditional academic subjects. There are other vehicles – projects, topics, practical enterprises, interdisciplinary work, and, not least, whole school processes" (White, p.10).

It could be that in Malta we are giving too much importance to academic subjects which have become compartmentalised, we are trying to specialise too early and we are missing out on giving a general education during the secondary phase. We should therefore examine the curriculum and reflect on whether there are areas of syllabuses which should be revised either in content or in the way that they are being presented to students. Considering the wide range of abilities among students, it is only fair that we differentiate between them and we do not adopt the maxim that one fits all. Perhaps students referred to as lower ability students, offer the greatest challenge. We should ask ourselves whether the study of another language apart from Maltese and English is recommendable for all secondary school students, whether more emphasis should be given to the spoken rather than to the written language, whether the choice of certain texts in Literature (for example Shakespeare) is recommendable, whether Physics should be substituted by Co-Ordinated Science, or whether in Social Studies there should be greater emphasis on the environment and on citizenship, just to mention a few examples. Could it be that our concept of secondary education is still that of a Grammar school?

1 "… making the curriculum sufficiently interesting and fascinating so students are motivated by the nature of the tasks, is central to developing students' interest in learning" (Ollerton, 2004, p.77). It would be very fruitful for us to introduce new topics which are closer to students' everyday experiences. Vocational topics such as 'Home Maintenance' and 'Craft' could help us bridge the gap between school and work expectations. Also very appropriate would be Home Economics and various other areas of interest to students. (refer to suggested timetable). Such a system of study would be best catered for if we introduce modules. Students would be assessed on each module and presented with a certificate so as to increase their motivation.

It is necessary to understand that our secondary schools must provide students with an appropriate education that will prepare them for future courses at the Sixth Form / Junior College (academic) or at MCAST (Vocational).

2 Design and Technology should be made available to all students following secondary education. We should also study the possibility of teaching and assessing the subject through the medium of the Maltese Language for those groups of students who opt for this choice.

3 Topics forming the syllabuses should be relevant to everyday life and presented as such. For example in History we should give preference to events taking place after World War 2 rather than go back to times with no direct impact on the present situation.

4 Language skills, namely listening, speaking, reading and writing, as well as numeracy, Science and ICT skills should be emphasised. Moreover, being the medium of many other areas of learning, English should also be given particular importance. Perhaps more time should be dedicated to English than at present, particularly to the oral and aural aspect.

5 There are also other skills that are fundamental to learning. It would perhaps be a good idea to dedicate a whole afternoon every week to the teaching and learning of these skills, a list of which is to be found at the end of this document. The acquisition of such skills will train our students to become critical thinkers and independent learners. It will greatly contribute to a more holistic education for our students.

6 Importance also needs to be given to basic concepts. Nowadays we are using the term ‘concept attainment’. Students are asked to

organise and re-organise what they know, and to **add** to what they know. (One has to realise that this is an important skill in itself.) Concepts such as 'healthy living', 'sustainable development of the environment', and 'respect for diversity' are but a few of these concepts that might interest students. (Here one has to emphasise not only the wise choice of content but also the method of teaching that should be applied. Refer to section B).

7 "Teaching topics where history, geography, design and technology, and art, as well as literacy skills and sometimes mathematics come together is … a desirable and achievable challenge" (Ollerton, 2004, p.37).
It would be recommendable to introduce a new area of study on the timetable - General Knowledge - which lends itself to an **Integrated Curriculum and involves teaching in a cross-curricular way**. It also involves practical sessions and hence greater motivation on the part of students. One must identify areas of study which are of interest to students. For each area of study they follow, students are presented with a certificate. Examples of areas of study may include:

- Making a video
- Buying a digital camera
- Surfing on the web
- Keeping a hobby
- Basic electricity
- Basic Carpentry
- Basic Printing
- Farming / Gardening
- Inside the Kitchen
- Public Speaking
- The Climate
- Eating Healthily
- The Value of Drama
- Different kinds of Music

- Young People's Poetry
- Art Appreciation
- Drugs: their use and abuse

8 Focusing on Competencies: Building Stones (we have to introduce new and unfamiliar terminology which appears to be fresh and to belong to the 21st century).
Students themselves choose a topic which involves the learning of various skills, and they work out a project in a practical and realistic manner as if it were the real thing.
Examples of titles which may be chosen: 'Organising a Seminar', 'Holding a Marathon', 'Preparing for a One Week Camping', and 'Collecting from Six Different Sources Information about the Introduction of the Euro in Malta'. In each case the success criteria is developed and made available to all concerned. During the activity the teacher may be called 'The Coach'.
An afternoon every week may be dedicated to these activities which are very much student centred. The learners themselves would list the skills that are to be learnt, and assess their own work under the supervision of the coach. At the end of the activity they are given a certificate that is graded from 1 to 4.
1 = Beginner
4 = Expert

(B) Teaching and Learning

Motivation plays a crucial role in the teaching and learning process. But as Dylan Wiliam points out (2006, p. 5) we have to think of motivation not as a cause of achievement, but as an outcome. Motivation takes place "when the level of challenge is just at the limit of your competence". When the level of competence is high, and the level of challenge is low, the result is boredom, and when the level of competence is low, and the level of challenge is high, one faces alienation. So we have to be realistic and examine what is happening in the classroom.

"This kind of teaching [formative assessment] is designed to meet the needs of each pupil personally, but in the context of whole classroom teaching rather than individual tuition" (Brooks & Tough, 2006, p.16).

Characteristics of Formative Assessment

- Having clear learning objectives (step by step learning)
- Sharing learning objectives with learners
- Establishing Success Criteria (shared by teacher and learners)
- Questioning technique
- Students' active participation (engaging students, ownership of their own learning)
- Concept mapping (What do I know? What can I add to what I know?) Brainstorming.
- Feedback, which includes marking learners' work.

Scaffolds: These strategies include modelling, coaching, inviting verbal articulation of newly learned material, and engaging students in reflection. Stiff-Williams (2002, p. 20) says that "When given opportunities to 'massage' newly learned material, low achievers extend their skills in learning. Scaffolds support the learning process by helping students to assimilate new content and extend their skills. Scaffolds work like the training wheels on a child's bicycle by providing support until the learner can advance independently".

- Peer Assessment
- Self Assessment
- Plenary Session

The above has to be reinforced by **Continuous Professional Staff Development which, in this area of formative assessment is still in its infancy.**

"Evidence of surveys of teacher practice shows that formative assessment is not at present a strong feature of classroom work. It follows that to establish good formative assessment practices in classrooms requires that most teachers make significant changes…" (Black et al., 2003, p.2).

There is close correlation between teaching and students' achievement. "Increased learning and achievement among low-achieving students depends heavily on the quality of instruction they receive" (Stiff-Williams, 2002, p. 19).

It is necessary to invest in teachers.
"… if you're serious about raising student achievement, … then you have to be serious about improving teacher quality" (William, 2006, p. 3).

A great deal of support to teachers and learners is also required. It is far better to invest financially in schools in preventive measures than to invest greater sums of money later on in remedial action.

There are other factors that play a significant part:

- Management and especially the leadership of the school
- Ethos
- Resources (Human and Physical)

All the above will hopefully result in
+ better student performance and hence the raising of standards
+ an improvement in classroom management
+ an increase in teacher job satisfaction and morale
+ better public image of schools

References

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The Curriculum

(focusing on Primary and Secondary Education)

We need to ask the following questions:

1. What sort of person do we want a child to become?
2. So what are the aims of education?
3. How best to achieve these aims?
4. Are traditional subjects satisfying the aims of education?
5. Which aims are not being catered for?

A list of skills/competencies apart from Literacy, Numeracy, ICT and Physical skills.

A Mental skills

1. observing
2. developing an eye for detail

3. describing
4. sorting, grouping, categorising
5. matching
6. finding similarities and differences
7. comparing and contrasting
8. remembering
9. reproducing
10. making a list
11. compiling
12. sequencing
13. following instructions
14. asking oneself relevant questions
15. prioritising
16. focusing
17. following a line of thought
18. recognising logical fallacies in reasoning
19. selecting
20. breaking a task into smaller parts
21. deconstructing
22. finding identical situations
23. finding patterns
24. following patterns
25. being able to generalise
26. outlining
27. recognising specific facts
28. eliciting information (recalling)
29. detecting contradictory information in a text or speech
30. detecting bias
31. assessing validity
32. assessing reliability
33. asking for information
34. analysing
35. inferring
36. differentiating between facts, opinions and inferences
37. interpolating
38. extrapolating
39. reading between the lines
40. interpreting
41. estimating
42. predicting
43. imagining
44. concentrating
45. evaluating

46. finding advantages and disadvantages
47. organising oneself
48. forming a criteria
49. assessing oneself and others against a criteria
50. identifying areas for improvement
51. taking remedial action to affect improvement
52. investigating
53. recognising hidden meanings
54. coming to conclusions
55. being original
56. being inquisitive
57. synthesizing
58. outlining the relationship among components
59. recognising the relationship between cause and effect
60. putting parts together to make a whole
61. recognising the bigger picture
62. identifying strengths, weaknesses, threats and opportunities
63. identifying problems
64. finding solutions
65. translating
66. applying
67. checking
68. revising
69. modifying
70. finding new ways to improve outcome
71. working according to plan
72. being well organised

B Mental skills with social implications

1. expressing oneself
2. exposing an argument
3. being concise
4. explaining to others
5. giving instructions to others
6. being well organised and organising others
7. taking the initiative
8. narrating
9. describing
10. arguing
11. writing a message

12. repeating a message
13. writing a report
14. managing time
15. asking for relevant information
16. giving the relevant information
17. finding the relevant information
18. handling of information
19. organising data
20. investigating and designing
21. evaluating and reflecting
22. deciding
23. being entrepreneurial
24. understanding the environment
25. understanding one's place in society

C Personal Skills

1. knowing safety rules
2. adopting healthy life style
3. understanding one's emotions
4. controlling emotions
5. understanding one's needs
6. understanding one's ambitions
7. coming to terms with one's situation
8. understanding life's blessings and setbacks
9. knowing when and how to ask for help
10. preparing oneself for the unpredictable
11. facing change
12. being proactive
13. respecting oneself
14. sharing
15. co-operating
16. exploring alternatives
17. deciding
18. forming a strategy (plan of action)
19. implementing decisions
20. facing consequences
21. developing confidence and self-esteem

D Affective Skills

1. communicating
2. putting oneself in someone else's shoes
3. playing a role
4. empathising
5. appreciating others
6. being sensitive to the needs of others
7. responding to people's needs
8. understanding the feelings of others
9. respecting values of other people
10. treating persons as individuals (for example remembering their names)
11. recognising the need for balance between personal freedom and responsible behaviour
12. accepting responsibility for one's behaviour
13. accepting professional ethical standards
14. accepting one's abilities and limitations
15. leading a life which is in harmony with one's abilities, interests, and beliefs
16. prioritising time effectively to meet the needs of the organisation, family, and self.
17. defending the rights of others
18. co-operating in group activities
19. displaying a professional commitment to ethical practice on a daily basis
20. revising judgements and changing behaviour in light of new evidence
21. valuing people for what they are, not how they look

E Social Skills

1. speaking in public
2. debating
3. listening to others
4. being assertive
5. working in a team
6. understanding norms
7. managing
8. leading
9. communicating with others
10. understanding others' point of view

11. appreciating the value of ideas
12. respecting cultural diversity
13. analysing a situation
14. detecting hidden agendas
15. detecting propaganda
16. detecting peer pressure
17. valuing democracy
18. valuing standards of behaviour
19. appreciating rights and duties
20. understanding one's role in society

Reference: Bloom's Taxonomy

Suggested Timetable for Secondary School Students Forms 1 & 2

Number of lessons	Subject/s or Area of Study
3	**Maltese (including Literature)**
6	**English (including literature)**
5	**Mathematics**
2	**The Environment & General Science**
2	**Religion**
3	**PSD & Citizenship (this includes Entrepreneurship & Health Educ.)**
2	**Home Economics**
2	**Physical Education & Sports**

2	**History & Geography**
2	**Design & Technology**
2	**ICT**
2	**Art, Music, & Drama**
3	**Foreign Lang. (optional)**
2	**Building Stones (this focuses on skills and competencies)**
2	**Modules (Choice from a wide variety of topics from various areas of study, such as: (a) Tourism Studies (b) Agriculture & Animal Husbandry (c) Media Studies (d) Textiles & Design (e) Art, Design & Craft (f) Health, Hair & Beauty (g) Care & Community Studies (h) Performing Arts (i) Mechanical, Electrical & Technical Studies**

TOTAL: 40 LESSONS

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