

Achieving 100% Pass Rate at MSCE

White Paper by

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BACKGROUND: POOR PERFORMANCE OF STUDENTS AT MSCE

For the past 15 years, Malawi has registered an estimated average pass rate of 47 percent at Malawi School Certificate of Examinations (MSCE). More than half of the students sitting for these examinations are consistently failing to prove that they have understood the concepts enough to gain a minimal pass at this level. When we round up the figures, an average of 50,000 students completely fail MSCE every year since 2002. These are they who won't get selected to any institution of higher learning.

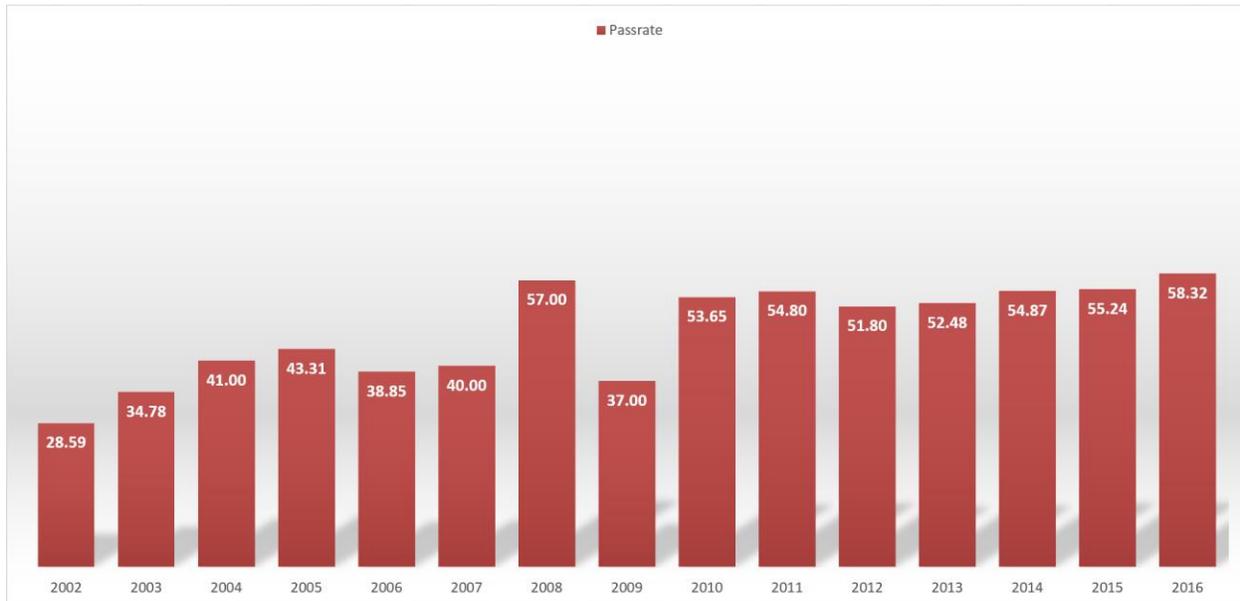


Chart 1: MSCE pass rates from 2002 to 2016

These sad statistics are only symptoms of the sickness that has gripped the standards of education in Malawi for a long time. Many of the students at MSCE cannot communicate intelligently in English. Mathematics, instead of being embraced as the key to understanding how the world works, is a subject that is still dreaded and despised.

Such other crucial subjects as geography, physical science, chemistry, are vaguely understood and most students cannot relate to the concepts being taught therein. And yet these are those important subjects that explain our existence, the movement of the earth which brings the different times, seasons, and climates, gravity, the beautiful concept of light, and other laws by which nature functions.

With these sad statistics of students' performance at MSCE it is mind-boggling to see that Malawi is not raising a red-alert or declare a national crisis so that this problem is looked at with the urgency and seriousness it deserves. Everything is business as usual and many Malawians do not stop to think what is becoming of these students who fail.

IMPLICATIONS

Certainly more money is lost every year by parents, guardians, students, and the government at large when students repeat secondary school due to failure on their first, second, or, in other cases, even third attempt. Money has to be spent again on school fees, transportation, food, and other logistics for repeating students to learn the same things they failed to understand previously.

But perhaps more important is the amount of time the students lose when they spend another year or two to learn the same things they learnt previously. If 50, 000 students fail and repeat MSCE, the country loses a totality of 50, 000 years. These are the years in which the students would have moved up the ladder in their educational advancement and investments which in turn help to develop the country. Progress is arrested in its tracks. Development is stalled. This partly helps to explain why Malawi, in the absence of war, still lags behind almost all countries on the face of the earth when it comes to development.

It is only when we can quantify the total amount of money and time wasted by the country as a whole when students repeat MSCE that we can see what a crisis this situation is.

CAUSES OF POOR PERFORMANCE BY STUDENTS

Certainly the poor standards at secondary education are caused by a myriad of factors. Prominent among them are:

- Poor welfare for teachers who are the driving force of the learning process
- Lack of adequate teaching and learning resources
- Lack of enough qualified teachers
- Teaching students with a focus on exams rather than understanding of the whole concept

The purpose of this paper is not to address each one of these factors in detail but to suggest one solution which can effectively mitigate their impact.

If we can get the students to understand what they are being taught and prove it by passing examinations we would say the system is working. Therefore, this paper exclusively focuses on how to help students understand what they are being taught, and not necessarily how to make the secondary education system as a whole function effectively.

THE POWER OF ICTS

I think the a wise use of Information and Communication Technology (ICT) has the potential to help students learn effectively. The government and other educational institutions can also save a lot of money if they can creatively use ICT. Here is how and why I think so.

ICT possesses a number of inherent characteristics which, if utilized wisely, can bring a tremendous transformation in students' performance. Below are some of the characteristics and how they can be exploited to improve secondary education in Malawi.

1) MEDIA VARIETY

Perhaps the most important feature of ICT that can be harnessed to help students excel is its ability to add several types of media together. ICT tools can present learning content through text, video, images, audio, and animation. These are powerful platforms that appeal to the student.

Expert teachers can present lessons in the simplest manner possible through a combination of these media types. High quality graphics and videos play a crucial role for students to understand visual concepts such as scientific processes. Animations make it possible for students to interact with learning materials thereby keeping them engaged throughout the lesson. The boosted attention span which comes from this level of involvement results in students achieving the objectives of the lessons. This is almost impossible to achieve using the traditional books and blackboards.

2) NO LIMITATION TO TIME AND SPACE

Content delivered via technology does not obey the laws of geography. It can be delivered to any part of the world in a very short period of time. A student learning at Mpondasi CDSS in Mangochi is stuck with her teachers there at that school. If those teachers are under qualified or not competent enough to teach that student will, as a consequence, have difficulties in passing MSCE.

However, if that student has access to a mobile or computer device it will be possible for her to have content that has been developed by much more competent, well qualified and highly experienced teachers. Furthermore, the student can reach out to other teachers directly and ask for help on any topic she might be having difficulties in. This is achievable through educational websites and social media pages or groups meant for such purposes.

Unlike books or other printed materials, content delivered through ICT tools is highly portable. Hence, a student can travel with her entire school resources in a mobile device and study whenever she wants to.

3) AUTOMATED ASSESSMENT:

A crucial element of learning is assessing whether the student has understood what was being taught. Books and exam papers have questions which students often use to test how well they have mastered a certain topic or subject. However, these assessment tools fall short in a big way because they do not provide the feedback to students on how much they have scored. A teacher needs to be involved to mark the students' work.

With ICT tools, however, the student is given her score as soon as she finishes taking the exercise. They also display the right answers and, in some cases, explanations why that is the correct answer. The assessment scores are kept and can be accessed any time to show the progress which the student is making in her studies.

This reduces the amount of work teachers have to do and reduces the likelihood of mistakes they make when marking exercises or tests from students. It also gives student an accurate reflection of how much they need to study more to master everything.

4) INTRINSIC MOTIVATION

Technological devices have brought an unprecedented excitement among the youth. Students love gadgets and the Internet. They want to be associated with it. Doesn't it then make perfect sense to deliver learning content through the platform which students love? The "cool" factor with which students associate technology is an intrinsic motivation that would attract them to study.

5) SELF-PACED LEARNING

As is common knowledge, students are all different. Some learn fast while some like to take their time when it comes to grasping concepts. This is natural. ICT will be a great tool for those students who just won't move at the pace of the teacher in class. At their own convenient time they can revisit tough topics. This all can be done without slowing down the teacher or disrupting the progress of the class.

A significant number of those who rewrite MSCE are those who do that while working. They usually struggle with finding time to attend normal classes. As a result they end up studying books on themselves and the results are not very good most of the times. This can be solved by the content prepared by expert teachers through rich media that can be accessed at any time.

REDUCED COSTS

The cost of books and other print-based learning resources is high. Due to this, many students simply cannot afford to get all the resources they need. Even schools struggle to furnish their libraries with learning resources to cater for the number of students they have.

With electronic learning resources, however, costs become far much cheaper and the problem of low book:student ratio is eradicated.

Once purchased or created, one electronic resource can be shared easily by all students. Thus there's no need to buy copies of the same resource just to make sure that it can be accessed by as many students as possible. A single phone or computer can hold an entire library, without the prohibitive costs of having the same library in print form.

The cost factor also becomes evident when the syllabus changes. The old books are rendered irrelevant and, therefore, useless. With electronic resources, however, students and schools can get the new content simply through updates, with very minimal to no costs at all.

6) SAVING TIME

Using ICT in delivering instructional content can save huge amounts of time for teachers, students, and learning institutions. Once content has been developed there is no more need for the teacher to go into the classroom and write notes on the chalkboard. Instead that time can be used for actual teaching.

Students will no longer be under the burden of copying notes (with the exception of jotting down main points) during class sessions or when they lose a notebook. Instead that time can be used for them to pay attention to what is actually being taught or, when they are not in class, to study the topic.

CHALLENGES OF ADOPTING UNIVERSAL USAGE OF TECHNOLOGY IN EDUCATION

There are three main factors that are preventing ICT to be fully utilized in the improvement of students performance at secondary school in Malawi. These are discussed below.

1) COSTING

The initial cost of acquiring a phone, tablet or computer is beyond reach for many students. This comes down to the mathematics of demand and supply as well as the levels of poverty which keeps tormenting the country.

However, the number of phones and computers being manufactured and put in circulation is increasing by the day. This causes developed countries to discard older devices in preference for new and advanced ones. Here lies an opportunity for the government as well as other organizations dealing with education to get usable but cheaper devices.

It is refreshing to see organizations such as Center for Youth and Development (CYD) harness such opportunities and partner with the government of Scotland. Through this partnership CYD will receive close to 4000 computers to be installed in 200 secondary schools in the northern region of Malawi. A similar partnership exists between Mzuzu University and an organization from Germany.

With such initiatives and increased supply of computing devices on the market more schools will have access to computers and more students will eventually be able to purchase personal devices for educational purposes.

Notwithstanding the high costs of implementing ICT-based education the government, schools, and other education players will actually save a lot of money in the long term. There will be no more need to print and buy more learning resources such as books, past exam papers, study guides, etc.

2) INTERNET CONNECTION

The cost of Internet connection in Malawi is super expensive. As if this is not enough, the connection is usually very poor. These challenges make it practically impossible for a majority of the population to access content on the Internet.

However, current developments promise to bring significant positive change to this situation. For instance the government of Malawi is reportedly implementing a \$23 million national optic fiber backbone project which is expected to increase Internet access and address mobile communication challenges in the country.

Other global tech giants are also working around the clock to address the problem of connectivity to marginalized areas worldwide. Google is currently piloting a project which aims at bringing Internet connectivity to communities using halogen balloons. On the other hand Facebook is trying to address the problem by using drones.

Everyone will eventually have access to the Internet and, judging from current trends, this should be expected to happen within a few years.

Another plausible solution would be for the government to establish a local intranet for the whole nation. This can be possible with the fiber optic backbone project. Content can be hosted on a national server and students can access this content without paying a single dime.

Furthermore, the government or any other entity can deliver content to students and teachers using local mobile service providers like TNM, Airtel, Access, etc. The content can be CACHED inside an operator's data center, making it faster and cheaper for the operator to serve that data to the country.

3) ATTITUDES

Oftentimes the older generation has lamented the fact that most of our youth tend to misuse technology. Many young people are notorious for getting glued to movies or series for hours on end, and getting hooked to instant messaging apps and social media platforms where they usually talk about mundane and idle things.

This use of technology is indeed a curse, rather than a gift. It does not advance their academic objectives. The failure of many students to obtain honorable grades at MSCE can be traced to the loss of hours they spent chatting aimlessly or watching gigabytes upon gigabytes of movies instead of studying.

It can be realistically urged, however, that students do what they do with these technology gadgets because they do not contain school content. In the recent years following the technological revolution there has never been any apps, software, videos, or games which have been carefully developed for

our secondary school students in Malawi. It is only now that companies like Padziwe and TECULES are coming up with such initiatives.

I believe our students deserve to be given a chance to prove that they can ignore movies or aimless chatter on social media and get immersed in school content available on their gadgets.

Besides, which is a better approach between training our young people to use technology responsibly versus prohibiting them to use it entirely? The essence of school is training. I believe the school has a huge part to play in guiding students in the proper use of technology so that positive results can be obtained. Let us remember that the students will still have an unlimited access to technology when they are out of school.

A NEED FOR COLLABORATION

For this vision to be successfully realized there's a need for collaboration of policy makers, innovative ICT companies, NGOs and other relevant educational institutions. Government, through the ministry of Education Science and Technology, needs to get flexible in its policies and approach towards the use of ICT in education.

When it comes to innovation I believe that ICT companies should play the crucial role in spearheading this revolution. Gordon Brown says:

"In recent years, private-sector funding options have opened up countless new opportunities for education-sector social entrepreneurs. However, as with technology, the public and nonprofit sectors have been slow to keep up; both still need to recognize the value of social enterprises focused on education.

This gap points to a unique opportunity to realize social enterprise's underappreciated potential. To grasp this opportunity, we should first acknowledge that too many ideas emanating from the nonprofit sector are stillborn and unfeasible, often for lack of finance. So we should do more to provide seed capital for education startups...which can then help scale up successful pilot programmes¹."

Therefore, social enterprises should be empowered to bring as many worthwhile innovations as possible to the education sector. Government or NGOs should not flinch from partnering with this part of the private sector to implement educational programs that are technologically oriented.

CONCLUSION

There have been numerous studies conducted in the western world, and one conducted here in Malawi, investigating the potential role of ICT tools in education. These studies have discovered key benefits of ICT in education to be increased time using technology, increased motivation to learn, increased collaboration and communication, among others.

Ephraim Nyondo's four-part series of articles which sought to identify the space for mobile phones in a classroom almost unanimously concludes, basing on feedback from students and teachers, that the mobile phone has become an integral part of learning for our students.

With proper guidelines for our students and policies that reflect modern day trends, we can effectively use ICT to help every student understand concepts at secondary school level and, as a result, pass their MSCE exams.

ABOUT THE AUTHOR

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