



Setting the Scene

This virtual meeting explored some of the challenges and successes of online education. The learning curve has been steep: much has been learnt about online teaching and learning, and people are now in a position to take stock of their experiences and evaluate some of the problems and opportunities. How much is being learnt through online teaching? What is the quality of this learning? Is online teaching merely the best way of responding during exceptional circumstances, or does it offer possibilities that can be taken forward and made a formal part of our educational offering?

This session hosted two school leaders who approached the topic from different perspectives – one more practical and the other more philosophical – and a panel of learners who shared their experiences and suggested ways to improve the quality of the online experience from a recipient perspective.



Overview of Presentation 1

Implementing online teaching: challenges, successes and lessons learned – Lawrence Manyesa, Principal, Vuleka SSB High School

Vuleka SSB High School is an independent, non-profit, Anglican Diocesan school providing affordable education focussing on development in maths, science and English home language.

The information in this section has been extensively summarised and is intended to be viewed together with the slides. Click [here](#) to view the slide presentation.

Lawrence described the process followed by the school to enable teaching and learning to continue during the Covid-19 school closure and reopening period, discussed the challenges and successes experienced in implementing an online programme, and suggested how some of the new practices could be taken forward.

The process followed

When the lockdown was announced during the March school holiday, immediate action was taken to communicate with the school community and to create a platform for online teaching. Teachers and parents were surveyed to determine which devices and platforms they had (or could have) access to. Most learners would be using cellphones, while a few would connect via tablets and laptops.

Initially the school used WhatsApp as its primary platform for teaching and learning. This allowed teachers to set up class groups, provide information in a variety of formats and engage in two-way communication with learners. The school tried other options such as Edmodo and Zoom before selecting Microsoft Teams as its preferred platform. This choice was enabled by a sponsor who undertook to fund all data costs for teachers and learners (the teachers had initially donated money to provide learners with data, but this was not sustainable in the long term).

The entire operation was set up and coordinated remotely. Teachers received training on using the various platforms effectively, and they in turn trained their learners. Protocols were developed to formalise and guide

online teaching and learning processes, so that both teachers and learners would benefit from using the technology appropriately and responsibly.

There was a continuous process of evaluation and reflection, with feedback being collected from teachers, parents and learners. This led to improvements such as reducing the duration of online classes after both teachers and learners experienced extreme fatigue (from 6 hours per day Monday to Friday, to 4 hours per day Monday to Thursday), to allow time for preparation, marking, homework and assignments.

Challenges experienced

- Not all learners could access the online platform. Those who were unable to connect remotely were provided with learning packs once schools opened on 3 June. The school eventually achieved a 100% outreach, with learners who could not access online classes fetching work from the school and submitting completed work on a weekly basis.
- The impact of challenging socio-economic circumstances – this ranged from poor attendance to hunger interfering with children’s ability to concentrate (the school runs a feeding scheme and provided food parcels during the closure) and a lack of access to electricity for charging devices.
- Despite having a comprehensive parents’ database, it was ‘no easy task’ to communicate and coordinate with parents in order to reach all learners.
- Teaching via WhatsApp was particularly challenging, for e.g. the delay between sending a voice note, allowing learners time to listen to it, and engaging further. Messages and voice notes ‘got lost’ amongst the entire conversation and sequential following was difficult for learners who experienced connectivity issues and then tried to catch up later.

Successes

- The initial survey and subsequent regular feedback from parents, learners and teachers provided an informed basis for moving forward.
- A systematic approach established a structure for effective delivery.
- Continuously reflecting on the process and checking the quantity and quality of work ensured an effective programme.
- The school was able to get 90% of its learners onto the initial WhatsApp platform and to begin online classes on the first day of the second term; Grade 12s began online classes during the March school holiday, which prepared them for the online learning programme and ensured that time was not wasted.
- Curriculum coverage remained on track for all classes.
- The school has improved its communication processes and knowledge of/ability to use technology.
- Collaboration amongst teachers improved.

Lessons learned

- It is essential to be very well prepared for online classes. Teacher preparation included pre-recording videos of themselves explaining topics while using whiteboards, as well as voice notes providing additional explanations. Teachers noted that the process of preparation was ‘very different from the usual’ and had to include anticipating conditions such as not being able to ‘read’ learners visually. Content was simplified.
- The importance of:
 - learners having a quiet, ‘formal’ environment in which to work
 - training teachers and learners to use the online platform effectively
 - dealing with challenges as they arose, so as to keep on top of issues.

Measurement of success

- This was mostly done in simple ways, e.g. by checking for understanding during lessons, setting exercises and marking them, and online quizzes. Longer more theoretical tests were used to check the achievement of objectives. Baseline assessments were administered to check mastery of concepts taught online.
- The most valuable evidence that online teaching had been successful was that when learners returned to school and teachers revised work taught online, learners had clearly understood it.
- Feedback was collected constantly from parents and used to review the online teaching programme and processes.



Overview of Presentation 2

Pitfalls, problems and possibilities of online teaching – Greg Theron, Executive head, Reddam House Waterfall

In reflecting on the impact of the Covid-19 pandemic on education, Greg began by linking the traditional system of education back to its roots in the (first) industrial revolution. Although there have been sporadic attempts to bring about change, the system has endured in its essentials for 200 years, ever since the invention of the blackboard. The introduction of computers only refined some of the processes of education. All this changed with the pandemic and the announcement of the lockdown – with schools having only a few days in which to develop a new understanding of what was important, and create a new model of delivery.

An opportunity to pause and reflect

Greg observed that: “When you press the pause button on a machine, it stops. But when you press the pause button on human beings, they start. They start to reflect¹ ... to rethink their assumptions, to reimagine what is possible and most importantly, to reconnect with their most deeply held beliefs.” Greg contends that to some extent this is what has happened to teachers during the pandemic – and that we have started talking and thinking about education – perhaps for the first time in a while.

Greg also referenced the work of American psychiatrist M. Scott Peck who linked depression to a process of growing mentally and emotionally, as a reaction to change, and which involved giving up a part of oneself in order to grow towards a more authentic, meaningful existence.² It can be argued that this is what has been happening in education. After an initial period of excitement, problem solving and pride in having navigated its way through a digital revolution, the teaching profession then found itself in a state of professional depression brought on by the loss of the ‘old, established ways of doing things’.

Instead of being overwhelmed by the changes, Greg maintains that the profession needs instead to recognise and acknowledge that it is now in a process of growing. In Greg’s view, we should not ever go back to ‘normal’. Teachers need to start engaging with the idea of replacing the old model of education – and if we do not begin to do this, it will prove to be one of the major pitfalls of this period.

““What we did before Covid-19 wasn’t working optimally – and if we go back to the way things were, we would have lost the lesson. We need to challenge ourselves to do better.”

¹Stated by Dov Seidman, an American author and columnist with a social-ethical focus, and quoted in *Thank You for Being Late*, by journalist and author, Thomas Friedman.

² In the book *The Road Less Traveled*, published in 1978.

Possibilities

Now is the time now to look for new and better ways of doing things. This will be difficult, as so much has already changed and there can be no certainty about the future. Greg also cautioned that the 'new normal' is already starting to show cracks.

“For millions of learners the ‘new normal’ never started, which is probably the starkest and most disturbing fact of all. As a society we are now more unequal than we were before.”

Mapping the way forward

To define the new model and map a way forward, Greg recommends drawing on:

The power of strategy – which can be harnessed by interrogating and agreeing on the goal towards which we will all strive, and then constructing the path by which to get there.

“We need to agree on equal education for all in this nation of ours – that includes personal mastery, civics education and preparation for the world.”

A collaborative process – this would involve acknowledging to each other (including learners, parents and industry) that we need each other in education processes, and then moving forward collaboratively, in terms of what we do and how we do it, to achieve the agreed goal.

Other areas to think about

The structure of online lessons – a process quite quickly became established (that includes teachers checking in, establishing authority and enquiring about learner well-being; providing a body of knowledge and related activities to build understanding; testing that understanding with some form of quiz or assessment; setting homework, and checking out). How can this be improved?

How to assess more effectively – this is a wonderful opportunity to really think through and get to grips with this question: how do we know if learners know what they are supposed to know? We need to look at the way we assess, and how it can be improved. The kinds of questions asked should be more open and thoughtful, so that learners cannot necessarily get to the answers easily.



Panel Discussion

The highlight of the meeting was a panel discussion on online teaching and learning with three young people: one who is currently in Grade 12, and two who are in Grade 10. All three attend independent schools; they include a low fee rural school with a maths and science focus; an affordable non-profit urban school based on Christian values; and a well-resourced school offering a rigorous, holistic education in a technologically rich environment. Despite these very different socio-economic contexts and their impact on individual circumstances, the panellists shared many similar views and experiences.

Panellists were asked to describe the experience from their point of view. What had worked for them? What were the challenges? How did it compare with their classroom experience? How could it be improved? CoP participants were invited to post their questions to the panel on the chat line.

These responses show the breadth of the discussion and indicate the main themes:

Online processes – general experiences

- It was a hectic time – especially for those of us from rural schools where we were not used to working with technology. We struggled to have the necessary resources to attend lessons. Learning was difficult at home as the environment wasn't conducive. Teachers provided notes (that were well explained), and if there was a need to clarify they would send audios. They couldn't send videos as they were more costly in terms of data and not everyone had the resources to participate.
- Our school tried to provide data and managed to distribute tablets to some learners. Others were able to use their parents' phones. Not all learners were able to join in the online lessons. They went to the school to collect materials and return work for marking.
- The online learning experience has been full of ups and downs; for me, more ups than downs. I personally struggled to adjust mentally. It is very tiring to sit in the same place every day, looking at the screen – trying to stay focussed and motivated. It is easy to lose concentration and end up missing something and not understanding fully.
- Some lessons were not quite effective, so we had to do some repeats when schools reopened.
- There are many factors to consider when doing online learning because everyone has such different experiences. Just keeping focussed and staying motivated during online lessons can be complicated and difficult.

What helped learners cope?

Having the support of teachers – teachers provided assistance in the form of examples to practice on, extra explanatory videos or voice notes, and giving feedback. Our teachers also exposed us to websites that we can use to gain further understanding such as the e-learning offered by Vodacom, Khan Academy and Siyavula.

Having the support of parents – parents helped by providing resources, making the work area more conducive, and cooperating in terms of expecting us to do chores in the home.

Emotional support – Our school was very good at keeping contact and helping where needed – making sure we could access the material and understood the work properly, but also reaching out to check on our well-being and making sure they knew how we were doing on a personal basis.

It was all quite stressful – but we were able to maintain a normal mental state because our school's Life Orientation teacher, who is also a psychologist, gave us support, reassured us and encouraged us to work with what was available.

Having the support of other learners – WhatsApp groups and the chat feature on MS teams enabled us to have conversations and gave us a support structure within our class/ subject groups. These exchanges combined academic support with social interaction (although they could also be distracting).

Lack of interactive learning

Panellists noted the loss of the interactive, social learning element they had been used to in class, whether this had taken place informally when checking understanding with a classmate, or intentionally in small groups, with the interaction forming a core element of the learning process.

- Your style of learning can be compromised in an online setting because there are only certain ways to convey knowledge online – it is all about explaining. Presumably, those with a more auditory style of

learning will have done better during this time, but for those who need a more hands-on and social approach to learning it has been difficult.

- Working online has reduced the interaction with classmates (which panellists see as a key aspect of learning), which has meant fewer opportunities for knowledge sharing and building a deeper understanding through exposure to other people's views.
- Online learning was not really working for me, even though my participation was high, simply because many of the other learners in the group were not really participating. The low participation ("...everyone just sitting there saying nothing") could have been due to technical difficulties or to them just not knowing the answers. In class my involvement would have been much greater because we would be discussing in person, with class member or teachers.

Practical work in science

The approach to science practicals varied greatly. Some learners were sent experiments which they carried out at home to get a sense of the concepts they were learning, videoed the process/ results, and sent them back. Some received videos of experiments being conducted, while others worked only with PDFs.

Broader benefits

I am grateful that we were able to continue learning during lockdown and that we were given the chance to learn to use technology – especially because there are some things you just have to do online, and it will be an advantage later when going on to university.

Topics that worked well online

Panellists mentioned examples such graphs in maths, and electricity and the Doppler effect in science as having come across well online. These topics lend themselves to being presented graphically. When the teacher draws while explaining, learners experience it almost as a one-to-one lesson, with the teacher sitting right next to them. Their experience is more direct online than it might have been if the teacher had done something similar when standing in front of a big class.

Improving the online learning experience

Panellists were asked to suggest ways in which teachers might improve the online experience for their learners.

Vary methods and approach

- Incorporate different styles of explaining, instead of doing the same thing every lesson and using the same teaching methods every day (e.g. demonstrating compared to just explaining, or having a class discussion)
- We mostly used pdfs and audios – but not videos because they use more data. We would have liked to see videos to watch the teachers explaining. For me, it is more effective to learn in a way that is interactive – when I can see the teacher writing, drawing and talking, I understand better.
- Instead of having to do the same kinds of questions and exercises each day on our own, we could do shared activities that we work together to solve, using teamwork, and incorporating different ideas. Sitting by yourself and doing those activities becomes monotonous – to have something more challenging would rejuvenate your focus and motivate you to want to participate.

Reduce the volume of work

- Start the school day later (at 8:00 rather than 7:00) and allow for short breaks between lessons.

- Allow more time per topic as learning at home takes longer (“we are not as quick to understand and there are distractions”).
- “Don’t bombard us with so much work”

More interaction – between teachers and learners, and between learners and learners

- Find ways to enable more interaction between learners – both formal and informal. Many learners feel constrained in an online environment (reluctant to participate as they are afraid of being wrong).
- Learners learn more by doing, so it is not effective to be in a group where they don’t participate. To encourage participation, teachers could form small follow-up groups for ‘shy learners’ so they have more opportunity to interact with the teacher and develop a better understanding.
- Building in more frequent opportunities for interaction would allow learners to ask questions/voice issues at the time the issue comes up, instead of bringing it up later when it is not as relevant.

In response to a question on what kind of formal learner interaction teachers could facilitate, one panellist suggested having learners research and present a topic (this could be made more interactive if learners worked as a group, with each being responsible for an aspect of the topic). The teacher could then provide input afterwards where there was a need for more direction.



Group Discussion

Participants were invited to join the discussion, either in person or on the chat line.

Bridging the digital divide:

- The pandemic has shown that technology is essential to our lives today. There needs to be more emphasis on making our children and teachers computer literate, especially in rural areas, so they feel confident using the technology. If something like Covid-19 happens again in future, we would then be better prepared, and could handle it better.
- In rural and disadvantaged areas, the level of engagement with e-learning is very low compared to schools and learners in reasonably well-to-do areas. Even when learners are given gadgets and data, the level of engagement continues to remain low. How can we increase the level of engagement?

“It is incredible what teachers have done in this short amount of time. I am concerned about equal access though, and the growing digital divide. I have been lecturing from home, in a rural area in the EC; there are so many children here who have had NO educational stimulus since the beginning of lockdown. No devices and no data for teachers or children. No communication from the school to the parents. It breaks my heart – what can we do for them? Who is responsible for initiating solutions and strategies?”

Authenticity of online work:

Question: How can we ensure that the online work learners do at home is their own work?

- Vuleka SSP had regular engagements with parents to ensure they understood that it is the child’s job to do the online work/homework, and the parent’s responsibility to make it possible, and to ensure the work is done.

Taking online teaching and learning into the future:

Question: To what extent is e-learning likely to continue once learners return to school? Especially in Grade 12 with the pressure of having to complete the curriculum, we are seeing that teachers naturally fall back on the norm – on what they have been comfortable with – and are no longer motivated to engage with online teaching.

Lawrence Manyesa responded as follows:

At Vulekha SSP no online classes are taking place for Grade 12s as they are now attending school daily – but we are using Microsoft Teams to livestream and record all Grade 12 classes, thereby making them accessible online. This approach (i) allows learners whose parents have not been comfortable with sending them back to school to continue learning at home, and (ii) gives slower learners, who might have missed something in class, an opportunity to go over lessons again in their own time.

A blended approach is being used for the other grades. This combines online classes (using Microsoft Teams) on days when learners are at home, with classroom-based lessons. On days when learners are at school, they are able to engage their teachers on anything that they might have missed online.

“We introduced this online system during particularly difficult times. Now that conditions are loosening up and children are returning to school, we are doing less online teaching. We now have an opportunity to look critically at the methodologies that we have been using, to bring more insight into what could have been done differently, and to refine the way we are doing it.”

Is online teaching taking us backwards? Making online teaching and learning more interactive:

Several participants observed that online teaching seemed to be pushing teaching back to a traditional one-dimensional interaction between teacher and learner (teacher gives information, asks questions, learner responds, teacher confirms, repeat sequence ...). Many of us have been trying to bring the learners’ ideas into discussion – but the limitations of the unfamiliar media have made it hard to make learners’ ideas part of the learning. Is there any way around this?

“Is there a feeling that we have had to throw out the socio-constructivist approach to teaching and learning maths? Have we gone back to the lecture method?”

Some responses/ suggestions from the panel:

- When doing maths and science examples or exercises, class facilitation mechanisms could be used where everybody participates, e.g. by saying how they interpret a question, how they would approach a problem, what methods they would use to solve it. This would show different ways of looking at the problem and different levels of understanding.
- All learners are different, and it might be difficult for a teacher to create a platform where everyone understands the same thing in the same way. One way to improve understanding and participation could be to give learners a chance to investigate/do research on a topic before the teacher presents it in a lesson.
- I believe that teachers are there to facilitate the learning of the learner – not only to give information, ask questions and [exert] control. A system where the learners only listen to the teacher also promotes situations where everything that the teacher says is great, and learners can’t question anything, get clarity or correct the teacher when what the teacher says contains a mistake. The interaction between the learner and the teacher should be more ‘socio-academic’ (if that exists) so that learners are able to really benefit from the class instead of just getting information from the teacher and having the same routine over and over again. Learners must be able to contribute.

- Teachers need to make conventional subjects like science and maths be ‘more fun’, such as by asking learners to interpret and build the argument. It is up to the teacher to find ways of making lessons more interesting and more interactive.

Comment from the floor:

- This issue goes to the heart of pedagogy itself – if a teacher is able to create conversations in the classroom, that teacher will be able to do that online as well. If the teacher is there as the facilitator, and the learners are able to interact with one another, you will get great ideas from the learners.
- Lawrence Manyesa: Engaging learners when teaching online is certainly doable – but it requires teachers to intentionally adopt a learner-centred approach and to continually review their online teaching methodologies (just as they would review their classroom teaching methodologies).
- Peter Glover: We must not underestimate the importance of interpersonal interaction to teaching – being able to read cues lets us see if there is understanding. The big question is how to do the same thing online. We perhaps also have to be brave enough to try those things where we are forced to give away some control (which could be intimidating for teachers, but it can be done).



Facilitator’s Summing Up

CoP facilitator, Peter Glover, noted that the different perspectives of the keynote speakers – one philosophical, and the other practical – were two sides of the same coin and should be integrated in any effective education model. The young panellists provided great value by sharing their experiences of online teaching and learning, as well as their insights and suggestions for improving that experience. The panel showed the importance (especially now), of teachers finding ways of talking to their learners and listening to them carefully.

What have we learnt that can improve the system that we are returning to? Peter observed that what we have learnt and still are learning about online methods has not only been about providing a replacement for classroom-based teaching and learning during the pandemic; we have also been learning lessons and new approaches that can be effectively incorporated into education and taken forward into the future.



Chat comments

The chat function gives CoP participants opportunities to share their questions, comments and views. We have tried to group the conversational threads, and have shown illustrative examples of comments on these issues. The aim is to ensure that people’s views and suggestions are captured in order to inform action going forward. Chat comments are taken verbatim, and should be read alongside the Meeting Highlights. We have not included attribution to individuals, as there was so much overlap in the conversations.

Assessment – ensuring that online work is the learners’ own

- If learners submit online assessments, they can get help from parents and apps like PhotoMath. What can we do to ensure that it is their own work?
- How did you ensure that the learners were learning what they were supposed to learn and that they actually understood?

- I agree with Lawrence in terms of assessing whether it is the learners' work, especially in primary school. Learners may require the assistance of parents in subjects like maths and science. Bloom's Taxonomy will assist teachers in designing a variety of assessments for different learning levels.
- Should we not be re-imagining assessment? What is the purpose? What are we assessing?

Psycho-social support to learners and teachers

- Please comment on the psycho-social support needs of learners and teachers and how these were addressed.
- I like the fact that LEAP 5 gave their learners psycho-social support alongside the online learning and teaching.
- I think teachers could also benefit from psycho-social support, together with the learners.
- Have you tried to establish chat groups of friends to engage in discussions on topics that you had online lessons on, to overcome the isolation? If so, was this beneficial?
- Did any of the students receive support from external organisations (not school or family)?

Equality of access – online vs paper-based

- What was the format of the material taken home by those learners who had no internet access? Did the school manage to evaluate if that was as effective as the audio and visual learning that the rest of the learners were getting?
- Thanks for sharing the Vuleka experience. Your efforts have certainly reached a fair number of learners. What is worrying though is the fact that a large % of learners still may not have benefited from online learning because they don't have access to devices and data. Vuleka has been fortunate, but in other parts of the country donations are scarce and the majority of learners are not able to access education. Greater effort should have come from government to accelerate access. The reality is that inequalities have worsened. Should we not look more at blended learning approaches?

Comments on the panel

- So wonderful to hear from young people.
- Very interesting to hear from the learners themselves.
- This is a fantastic idea to have afforded learners an opportunity to engage and share their online experiences. Much can be learnt when we engage with all stakeholders to improve the current systems that schools are using to support the learning taking place.
- Enjoying listening to these learners expressing themselves so clearly. They have really done well during trying times.
- It was a brilliant idea to involve learners in the session to hear from the 'horse's mouth' how they experienced it. I however think the learners involved were not the 'average learner'.

Practical work

- Were learners encouraged to perform science experiments at home, e.g. using things like vinegar and eggs to show the reaction of carbonates with acid? Were the learners able to take pictures of their work and send their pictures to their teachers?

How can the online experience be improved? Is technology taking teaching backwards? What are the limitations of online teaching and learning?

- Online discussions are possible if you give learners breakaway sessions on WhatsApp or other platforms. Learners should be encouraged to use the video function, but it should not be compulsory. They can use the chat function to engage as well.
- I liked the suggestion for teachers to form follow-up smaller learner groups to address the needs of 'shy' learners to voice their questions and concerns.
- Is there a feeling that we have had to throw out the socio-constructivist approach to teaching and learning maths? Have we gone back to the lecture method?
- There are some reservations I picked up regarding assessment and learner interactive activities. How best may we improve these during the virtual teaching/learning process?
- Learners are finding it difficult to adapt to not having social interaction. I think that the tutor approach would apply for more detailed explanations in Maths and Science. Learners will have to adapt to self-regulated learning which will prepare them for tertiary level.
- Pre-recorded sessions will help.
- If a teacher is skilled at creating conversations in class, these can also be achieved online.
- Much as online learning is a tool to be used in teaching even when things go 'back to normal' one should always keep the limitations in mind i.e. not being able to read from the non-verbal behaviour of learners how good their understanding is. Learners also don't get to practise social skills, i.e. problem solving, handling of conflict, etc.

What can we take forward?

- Adaptation. We should always be willing to change. Change is what makes us human. Our views should always be reshaped. Life is all about evolution.
- Thanks to both speakers: to Lawrence for the agility you showed; to Greg for lifting the conversation to re-imagining our collective new future. I am interested in personal mastery to empower ourselves as teachers to engage differently. Where do we start?
- We should push for the adoption of technology in the classroom, making all our learners and teachers comfortable by providing training for all. This will diminish the effect of some learners and teachers feeling inadequate when it comes to rolling out lessons online and using the technology. Then when educational software is being utilized everyone will be on the same level of expertise.
- Teachers need to be very open-minded and flexible regarding change and innovation, especially in maths and science. Teaching and learning are evolving at a tremendous rate. I think we can prepare and reinvent ourselves continuously for the future.