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Education Researchers Respond to The COVID-19 Pandemic Research Report

Theme 5:

Unlocking the Lockdown Mindset

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UNLOCKING THE LOCKDOWN MINDSET

1. Introduction

This document reports the findings of (1) a desktop review on Grade R–12 and early childhood development (ECD) teaching and learning resources available for teachers, learners and parents; and (2) an online survey researching levels of access and engagement of teachers, learners and parents. This review forms part of a larger research project which aims to contribute meaningfully to finding solutions to the pressures being placed on education systems, by investigating the best mega-, meta- and micro-level education strategies that can be used during times of crisis.

2. Background

With the country and the world at large grappling with COVID-19, the Minister of Basic Education has noted that:

> *Since 26 March 2020 in the basic education sector we have held just less than fifty (50) meetings with different stakeholders. In each meeting we deliberated on the future of basic education, following the COVID-19 induced national state of disaster, resulting in the national lockdown. One principal guiding us was lowering the infection rate, ensuring safety but balance it against protecting lives. At all times during the consultations we have started with the safety of our learners, teachers and employees. We made safety a priority. (Angie Motshekga, 30 April 2020)[1]*

On 30 April 2020, the National Coronavirus Command Council approved the following adjustment to the school calendar for 2020 (Angie Motshekga, 30 April 2020)[2]:

1. Office-based staff to return to work on 4 May 2020, in line with the directive from the Department of Public Service and Administration.
2. School Management Teams should return to work on 11 May 2020 to prepare the schools prior to the return of learners.
3. Teachers return to work on 18 May 2020.
4. Grade 12 and Grade 7 learners go back to school on 1 June 2020.

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[1] Motshekga A. (2020). Minister Angie Motshekga: Basic Education Sector recovery plans for the reopening of schools, following the Coronavirus COVID-19 lockdown adjustment of regulations.
https://www.gov.za/speeches/minister-angie-motshekga-basic-education-sector-recovery-plans-reopening-schools-following

[2] Ibid.

The COVID-19 pandemic has led to a national shutdown. Schools have been identified as high-risk areas where infection could spread easily. Following the proclamation on the state of disaster in South Africa, teaching and learning cannot continue in the conventional way due to COVID-19 and the risk it poses. As a result, teachers, learners and parents need access to quality teaching and learning resources in order to ensure that schooling continues in some form during this lockdown period.

3. Methodology

The study commenced on Tuesday 31 March with the launch of Thematic Area 5, at which all researchers were introduced to each other and informed of the research plan. The aim was to complete the research during the three-week lockdown period. The team consisted of nine researchers, two education researchers, two co-leads and the lead researcher. The study utilised a mixed method approach in the form of a desktop review and a quantitative survey.

The national lockdown has resulted in a disruption to schooling, and learners and educators have had to adapt to new ways of teaching and learning during this time in order to cover the national curriculum. The aim of the desktop review was to better understand the teaching and learning resources that are available for use by teachers, learners and parents. Similarly, the aim of the online survey was to better understand how teachers, learners and parents have adapted to new ways of teaching and learning – if at all. It seeks to understand what is being used for teaching and learning, and whether teachers, learners and parents have access to the technology which allows them to utilise learning services such as smartphone applications, live-streamed lessons and other forms of online learning.

3.1 Desktop review

The content of this desktop review is based on an analysis of teaching and learning resources for ECD, Foundation Phase, Intermediate Phase, Senior Phase and Further Education and Training (FET).

To find relevant resources, the research process entailed a general search of various notices, journal articles, websites, social media, newspapers, television and radio programmes, and word of mouth through personal networks. Each researcher was given a research focus area. There was one researcher each for ECD, Foundation and Intermediate Phase resources. The Senior Phase, FET (Grade 10–11) and FET (Grade 12) research focus areas had two researchers each due to the large number of subjects in these phases.

Overall, the research process went well, and the researchers were able to find many relevant resources. The researchers did experience a few challenges, including that the myriad of resources available made deciding which ones to investigate a little challenging. There is a great deal of information and it takes time to comb through the resources to select the most useful. Another challenge was the data capturing process. The consolidated data capturing template was only provided later in the research process, thus causing some delay as researchers had already been using another template. Furthermore, it was difficult to find uniform and comparable information across all resources as not all information required

in the shared template was readily available. Information on contact details and alignment with the Curriculum Assessment Policy Statements (CAPS) was difficult to establish. Some websites required researchers to register or sign up before the resources could be accessed, and others did not provide contact details. Lastly, the consolidated template did not work for the ECD focus area due to the distinct ECD teaching and learning requirements. A separate tab was thus created for this focus area.

3.2   Surveys

Three online surveys for researching the levels of access and engagement of teachers, learners and parents were developed using Google Forms. The surveys were mostly quantitative. The purpose of each survey was clearly stated, and electronic consent was required from all respondents, with the learner survey requiring parental consent in addition to learner assent. The teacher and learner surveys were developed by the Centre for the Advancement of Science and Mathematics Education (CASME), and an initial round of data collection took place over a 24-hour period from 7–8 April 2020. The surveys were then widely distributed through the Bootcamp network, with data collection taking place from 15–27 April 2020. A parent survey was also developed for the Bootcamp and sent out simultaneously.

For the survey analysis and write up process, the researchers were divided into three teams consisting of three researchers per team. All three survey teams met on Friday 24 April to develop and finalise an analysis plan for each survey in preparation for the analysis and findings write-up.

4.   Desktop review findings

The research indicates that there are a number of resources available for teachers, learners and parents. The main findings to emerge from this research are presented below. The lists of resources found are provided in Annexures B (List of Grade R – Grade 12 Resources) and C (List of ECD Resources) .

4.1   Lack of offline resources

A significant finding is the lack of resources that are available offline. In this case, offline resources refers to educational resources that reach their intended targets (school children, teachers and parents) through a medium other than the internet. This means that we do not know what is available to a large percentage of our learners – learners in rural and urban areas who do not have access to smart devices and the internet. Most of the resources on online platforms can only be accessed by those with access to technology and unlimited data. This finding is significant in that it indicates how this lockdown period could widen the inequality gap in the South African education system, with those who do not have online access at risk of falling behind the national syllabus.

4.2   Public visibility

The Department of Basic Education (DBE) has put together a myriad of comprehensive educational resources that are not well known in the public sphere, including textbooks, workbooks, exercise books, homework books, test banks and solutions for every grade and subject relevant to South Africa.

4.3 Parents as education facilitators

Parents have had to become more engaged in their children's education and learn how to facilitate their learning themselves. Those parents who cannot afford tutors have had to invest time to guide their children, which includes familiarising themselves with the content.

4.4 Big focus on Maths and Science

The research also indicated that Mathematics and Science are the two subjects for which resources are the most readily available. This is important as these are two of the major problem areas in South African schooling. However, this emphasis disadvantages those learners not taking these subjects. The desktop review revealed a lack of material covering subjects such as Agricultural Studies, Maritime Economics and Consumer Studies, among others. Another are that was found to need attention is resources for learners with special educational needs.

4.5 CAPS alignment

It is reassuring to know what the DBE has a significant amount of resources which are CAPS aligned.

4.6 Practical and engaging content

Many of the resources provided content in the form of tutorial videos (live or pre-recorded) while also offering the option to send follow-up questions to assigned tutors. Other resources, such as the SATeacher Learning and Ten Fold Education apps, offered daily online activities with fewer videos and more practical work. One of the resources that stood out in terms of usability and content was the Siyavula Education website, which offers video tutor sessions, examination preparation material, as well as curriculum content coverage and an option where learners can answer questions about a given topic and receive immediate feedback. Membership is offered for a free trial, but access must be purchased thereafter.

For ECD in particular, one of the most valuable resources was a set of parent guidelines which indicate the types of activities children should be doing at certain ages. This gives the parent the opportunity to explore and create other activities related to each subject area in addition to the ones provided. The guidelines also provide tips and tricks that parents can use to teach their children, as well as every day examples on how education can be incorporated into general activities beyond a semi-formal teaching environment.

Other interesting resources include communication platforms for teachers, learners and families to build close-knit communities by sharing home lessons daily via photos, videos and messages, as well as via other subject-based web and mobile apps.

4.7   Declining number of views

The Africa Teen Geeks free video classes (STEM Lockdown Digital School) were very informative and easily accessible on social media; however, during the course of this research, there was a noticeable steady decrease in the number of viewers for each new video. This may be due to a lack of interest, but also to a lack of facilities. The latter possibility reinforces the concern that only a small number of South African learners have access to such online resources.

4.8   Alternative resources

One way to widen access is by making available resources VAT zero-rated. However, it needs to be noted that the benefits of technology demonstrated worldwide throughout this pandemic continue to be out of the reach of the ordinary South African learner. In any case, only a small percentage of the online resources found were zero-rated.

What is evident is the need to find offline resources that can be accessed by the majority of learners. During our meetings, it was repeatedly emphasised that resources need to be accessible to all learners in different environments to prevent perpetuating the cycle of inequality. In this regard, the researchers suggested educational CDs and DVDs as alternative solutions to resources accessed on the internet. Once such offline resources have been identified and curated, there is the question of how they can be distributed in a safe manner – given the current lockdown of non-essential services.

5. Survey findings

This section presents the findings of the teacher, learner and parent surveys undertaken to determine learners' levels of access and engagement. A total of 230 teacher responses, 246 learner responses and 279 parent responses were received.

Table 1: Survey respondents

Province	Teacher survey	Learner survey	Parent survey
Eastern Cape	22	52	18
Free State	27	10	16
Gauteng	26	11	64
KwaZulu-Natal	82	120	29
Limpopo	26	26	33
Mpumalanga	0	2	61
Northern Cape	3	3	24
North West	0	8	2
Western Cape	36	10	32
Unknown	8	4	0
Total	**230**	**246**	**279**

5.1 Teacher survey findings

The teacher survey was designed to gather information on whether teachers have been engaging with their learners during this lockdown period, and, if engagement is taking place, what that engagement looks like. The survey also looked into the type of support teachers require for the upcoming term. The results of the survey are presented below.

5.1.1 Respondent demographics

Figure 1 provides an overview of the teacher survey respondents. Over a third were from KwaZulu-Natal, with a close to even distribution of respondents from Limpopo, Western Cape, Free State and Gauteng. There was a very small number of respondents from the Northern Cape (1%) and none from Mpumalanga and North West.
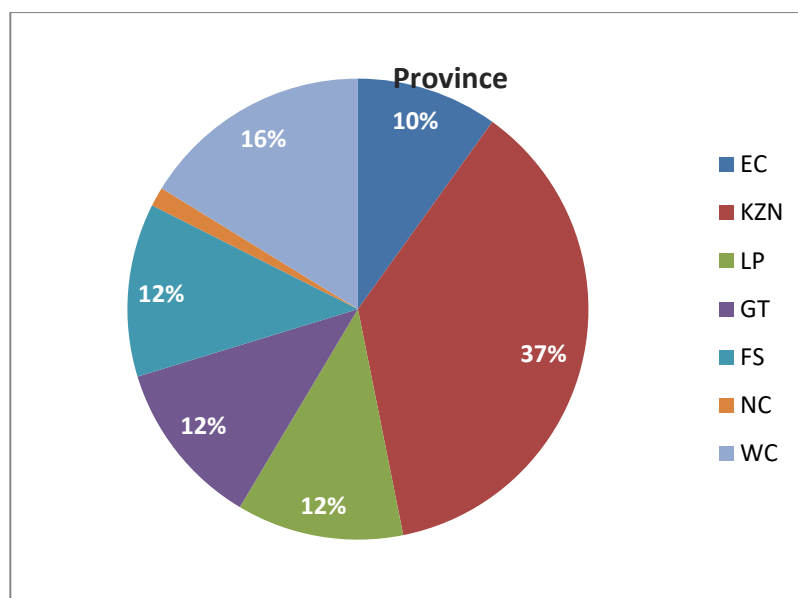
Figure 1: Teacher survey respondents by province

A large number of respondents (60%) indicated that they are currently teaching in primary schools. Tables 2, 3 and 4 provide an overview of the teacher survey respondents broken down by school category, by province and by phase.

Table 2: Number of respondents by school category

School category	Total	%
Primary	135	60
Secondary	88	39

Combined	3	1
Total	**226**	**100**

Table 3: Number of respondents by school category and province

Province	Total	Primary	Secondary	Combined
Eastern Cape	22	12	10	
KwaZulu-Natal	81	32	47	2
Limpopo	26	12	14	
Gauteng	26	19	6	1
Free State	26	25	1	
Northern Cape	3		3	
Western Cape	35	32	3	
Total	**219**	**132**	**84**	**3**

Table 4: Number of respondents by phase[3]

Phase	N	%
Foundation	48	21%
Foundation to Senior[4]	4	2%
Intermediate	47	21%
Intermediate to Senior[5]	21	9%
Intermediate to FET[6]	5	2%
Senior	20	9%
Senior toFET[7]	43	19%
FET	37	16%
Total	**225**	**100%**

A large number of teachers indicated that they were teaching in the Senior Phase (Grade 7–9). All phases were represented in the survey, with more than 50 respondents per phase.
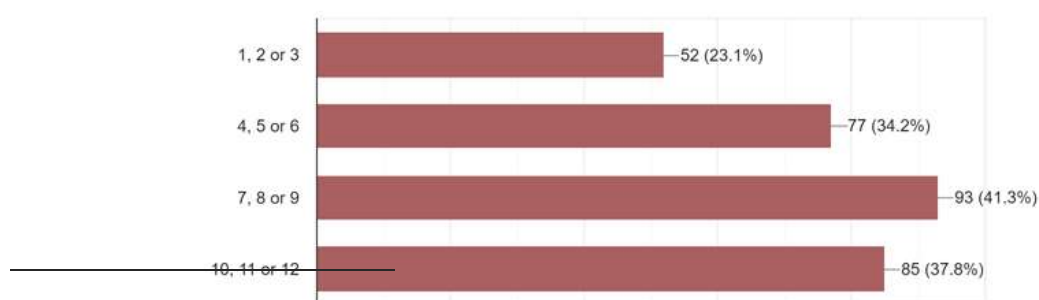
[3] A number of teachers are teaching across a few phases. The phases in this table have been grouped based on teacher selection.

[4] These are teachers who indicated that they are teaching between Grade 1 and Grade 7

[5] These are teachers who indicated that they are teaching between Grade 4 and Grade 9

[6] These are teachers who indicated that they are teaching between Grade 4 and Grade 12

[7] These are teachers who indicated that they are teaching between Grade 7 and Grade 12

Figure 2: Phases/grades teachers were teaching in

5.1.2 Have teachers been in contact with their learners since the lockdown started?

Over half of the surveyed teachers responded positively to this question.
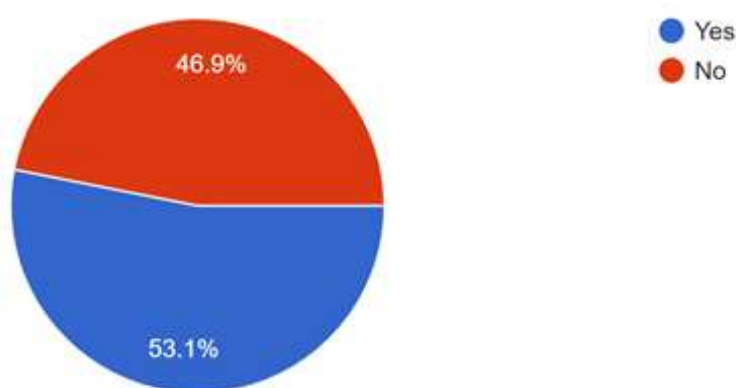
Figure 3: Teachers in contact with learners

Table 5 presents teachers' contact with learners by province. A large percentage of respondents from the Free State and the Northern Cape indicated that they had not been in contact with their learners. In all other provinces, 50% or more of teachers indicated that they had.

Table 5: Teacher contact by province

Province	Total	Yes	No	%
Free State	26	7	19	27%
Northern Cape	3	1	2	33%
Limpopo	26	13	13	50%
KwaZulu-Natal	82	42	40	51%
Eastern Cape	22	13	9	59%
Western Cape	35	24	11	69%
Gauteng	26	19	7	73%
Total	**219**	**132**	**84**	
Average				**52%**

When looking at the data by school type, a larger proportion of secondary school teachers (69%) indicated that they had been in contact with their learners than primary school teachers (43%).

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Table 6: Teacher contact by school category

School category	Total	Yes	No	%
Primary schools	133	57	76	43%
Secondary schools	88	61	27	69%
Combined schools	3	1	2	33%
Total	**224**	**119**	**105**	
Average				**49%**

When looking at the data by phase, more than 60% of teachers in the Foundation to Senior Phase, Intermediate to FET Phase, Senior to FET Phase and the FET Phase itself indicated that they had contacted their learners. A much lower percentage of Intermediate to Senior Phase and Senior Phase teachers indicated that they had contacted their learners.

Table 7: Teacher contact by phase

Phase	Total	Yes	No	%
Foundation	48	22	26	46%
Foundation–Senior	4	3	1	75%
Intermediate	47	22	25	47%
Intermediate–Senior	21	6	15	29%
Intermediate–FET	5	5		100%
Senior	20	7	13	35%
Senior/FET	43	30	13	70%
FET	37	24	13	65%
Total	**225**	**119**	**106**	
Average				**58%**

5.1.3   Did learners take workbooks and textbooks home before the lockdown?

Most teachers indicated that learners had taken their workbooks and textbooks home before lockdown.
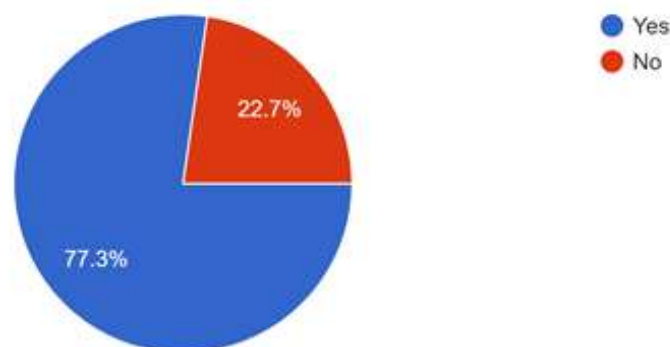
Figure 4: Learners taking workbooks home

A close look at learners' use of workbooks during the lockdown based on province shows that an average of 77% of teachers confirmed that their learners were using workbooks and/or textbooks during lockdown. The Free State, Western Cape and Eastern Cape recorded the highest use of workbooks during lockdown. Gauteng recorded the lowest, with just above half of the respondents (56%) indicating that their learners were using workbooks during lockdown.

Table 8: Learners taking workbooks home by province

Province	Total	Yes	No	%
Free State	23	20	3	87%
Western Cape	23	20	3	87%
Eastern Cape	20	17	3	85%
KwaZulu-Natal	74	56	18	76%
Limpopo	20	14	6	70%
Gauteng	25	14	11	56%
Total	**185**	**141**	**44**	
Average				**77%**

5.1.4 Are learners using their workbooks to learn?

When considering school phases, responses from teachers show that over 65% of learners in all phases were using their workbooks. The data indicates that learners in the FET and Intermediate phases used their workbooks the most, with over 80% of learners in those phases using them. However, this picture could be different if the mixed groups, for example Intermediate to Senior Phase, were considered as part of the individual groups. (The true picture is distorted because some teachers indicated that they are teaching in more than one phase.)
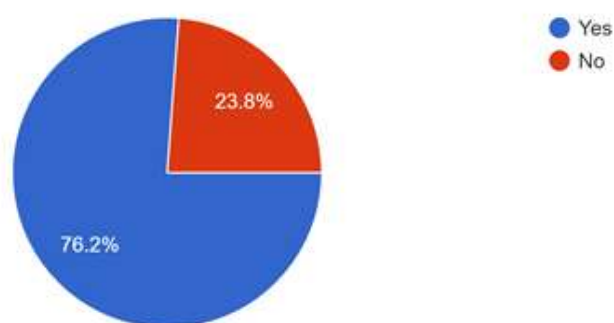
Figure 5: Learners using workbooks to learn

Table 9: Learner workbook use by phase

Phase	Total	Yes	No	%

FET	32	29	3	91%
Intermediate	43	35	8	81%
Senior	17	12	5	71%
Foundation	32	22	10	69%
Senior/FET	36	25	11	69%
Intermediate to Senior	19	13	6	68%
Foundation to Senior	3	2	1	67%
Intermediate to FET	3	2	1	67%
Total	**185**	**140**	**45**	
Average				**73%**

When looking at the data by school type, teacher responses show a 100% use of workbooks by learners attending combined schools. However, the sample size for this category is quite small, with only three teachers. About 78% of teachers from secondary schools and 74% of the teachers in primary schools indicated that learners are using their workbooks during lockdown.

Table 10: Learner workbook use by school category

School category	Total	Yes	No	%
Combined	3	3		100%
Secondary	74	58	16	78%
Primary	110	81	29	74%
Grand Total	**187**	**142**	**45**	
Average				**84%**

5.1.5 How do teachers know that learners are using their workbooks to learn?

Responses to this question were categorised into three themes, namely "Yes", "I don't know" and "No". The themes "Yes" and "No" were further grouped into sub-themes to better understand the nature of the responses.

Teacher awareness of learner workbook and textbook use (Yes)

A total of 14 themes were generated from a wide range of quotations under "Yes". When looking at the network diagrams (See Annexure D), the most popular themes are highlighted using the brightest colour. "G" represents groundedness, which is a measure of frequency of quotations or simply the number of quotations within a particular theme. "D" represents density, which is a measure of connectedness of quotations to themes. This also indicates the number of themes a particular quotation is linked to.

The most popular sub-themes with more than 20 quotations each were "Interaction with parents", "feedback from learners", and consistent interaction between teachers and learners through "giving tasks during lockdown".

The following verbatim quotations were extracted from "interaction with parents":

We sent some workbooks home and have scanned other pages and worksheets via email. I check on children at least twice a week via a WhatsApp video call and they parents can scan work and email it or take a photo of the work using their phones and send it to me.

Work has been loaded on D6 and some parents have made contact.

As I am in contact with the parents of my learners via WhatsApp, I do send them electronic resources. parents ask questions regarding the DBE workbooks, I have also sent them an electronic copy of the DBE workbooks.

I've been talking to some of the parents telephonically.

Teachers indicated that feedback came in different forms – from learners asking question, posting comments on social media platforms (such as Facebook) as well as learners participating actively on WhatsApp-messaging classrooms. Some teachers had the following to say:

I'm doing revision using worksheets, from their responses I note they do personal studying.

I am being asked to explain certain tasks.

Because they are able to answer the questions that I asked them to do.

They ask questions while answering.

While some teachers gave learners tasks to complete during the lockdown period, others maintained contact with learners and taught and tracked them using various online platforms. These included the D6 communicator, Google Classroom and Class Dojo OneNote. Some teachers said the following:

I am in contact with my classes and for some of my classes, such as English, I have assigned work that they complete and either submit on google classroom or send an image of the completed work on my class WhatsApp group as evidence that the work is being completed.

I am tracking them Google classroom and on dojo classroom.

Some Learners, those present in the last days before lockdown, were given books to take home, they have been provided with online activities (posted on the D6 communicator) and are using their books and textbooks.

Course information is distributed through OneNote, use of these in class has been regular.

Teacher awareness of learner workbook and textbook use (Not sure/I don't know)

Results show that a considerable number of teachers were unsure whether their learners had taken and were using workbooks and textbooks during lockdown. A total of 21 quotations emerged under the category: "I don't know/Not sure". Apart from simply mentioning that they didn't know, or that they

hoped so, some teachers gave explanations to support their views. Selected verbatim quotes are shown below:

> *They don't participate in the WhatsApp group I created.*

> *I suppose they are using their workbooks since they have them at home. And I suppose they are reading and studying during this period of lockdown. There is no way of contacting or communicating with these learners.*

> *No idea as I don't have parents email addresses.*

> *I'm not sure as I'm not in contact with them.*

Teacher awareness of learner workbook and textbook use (No)

Teachers who responded that learners were not using workbooks and textbooks during lockdown gave many reasons. These were categorised into 12 themes. The most popular themes with quotations between four and seven each were "They don't do assigned tasks"; "We did not give them workbooks to take home"; "They don't have textbooks"; and "I have no contact with them". Some teachers seemed very pessimistic about learners doing any schoolwork during lockdown, claiming that learners did not do assigned tasks. This sentiment finds expression in the following verbatim quotes:

> *When I am supposed to track, I find out no work is done.*

> *Grade 12s are not using theirs because they never asked a question for clarity or whatsoever with regards to the given tasks.*

> *Most of them are unable to do homework.*

Some teachers explained that they had not given learners workbooks to take home. Others added that not all students had taken workbooks. They said the following:

> *They didn't take any books home. Only homework sheets.*

> *They do not have textbooks … they rely on their own workbooks.*

> *I have always had learners leave their books for the holidays, because majority always tend to lose them or damage them.*

> *Lock down came unexpected.*

Other teachers simply indicated that they did not have contact with either learners or parents:

> *For the grades at 0%, I have no contact with them.*

No contact with parents or learners because most of them are not exposed to media and also the lack of electricity in the village.

I never contact them.

5.1.6   Are teachers setting tasks for learners?

Close to 60% of teachers indicated that they are setting tasks for their learners during the lockdown. In four out of the seven provinces, more than half of teachers indicated that they were setting tasks. Less than half of the teachers in the Free State, Limpopo and Northern Cape indicated that they were setting their learners tasks.
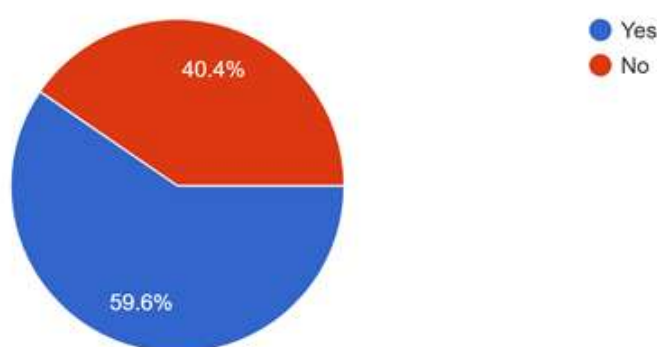
Figure 6: Teachers setting tasks for learners

Table 11: Teachers setting tasks by province

Province	Total	Yes	No	%
Eastern Cape	22	12	10	55%
Free State	26	11	15	42%
Gauteng	26	17	9	65%
KwaZulu-Natal	81	56	25	69%
Limpopo	25	11	14	44%
Northern Cape	3	1	2	33%
Western Cape	34	23	11	68%
Total	**217**	**131**	**86**	
Average				**54%**

When looking at the data by school category, a large number of teachers in secondary schools (71%) indicated that they were setting tasks for their learners. Fewer teachers in primary schools (53%) and combined schools (33%) indicated that they were doing the same.

Table 12: Teachers setting tasks by school category

School category	Total	Yes	No	%
Primary schools	132	70	62	53%

Secondary schools	87	62	25	71%
Combined schools	3	1	2	33%
Total	**222**	**133**	**89**	
Average				**53%**

When looking at the data by phases, more teachers in the Intermediate to FET, Senior to FET and the FET Phase itself are setting tasks than teachers who teach in the other phases, with over 65% of teachers in these phases indicating that they are setting tasks for their learners.

Table 13: Teachers setting tasks by phase

Phase	Total	Yes	No	%
Foundation	48	25	22	52%
Foundation to Senior	4	2	2	50%
Intermediate	47	26	19	55%
Intermediate and Senior	21	11	10	52%
Intermediate to FET	5	4	1	80%
Senior	20	7	13	35%
Senior to FET	43	32	11	74%
FET	37	25	11	68%
Total	**225**	**132**	**89**	
Average				**58%**

If teachers are setting tasks, how regular is the follow up and feedback?

Close to one third of teachers indicated that they follow up with their learners often. Another 19% indicated they did so very often. And while 23% of teachers indicated that they follow up with their learners occasionally, 20% indicated that they do not follow up with their learners at all.
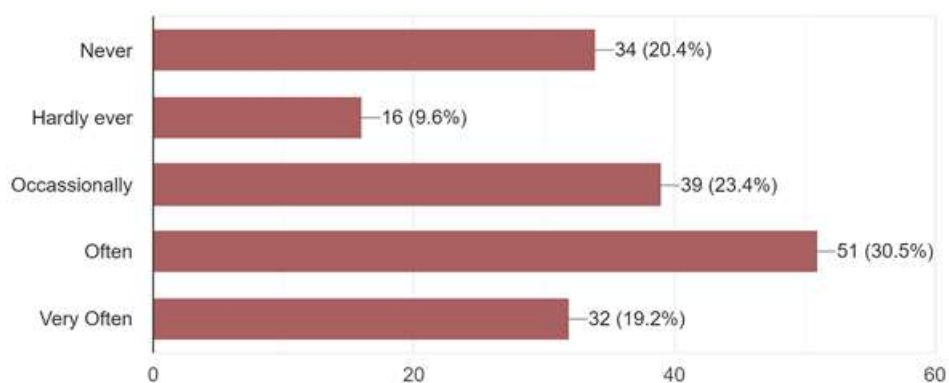
Figure 7: Teacher follow up and feedback

When looking at the data by school category, the majority of teachers indicated that they were regularly following up with their learners. This ranged from occasionally to very often; fewer teachers indicated that they hardly ever followed up or never followed up. Unfortunately, the sample size of the combined schools is too small to deduce much.

Table 14: Teacher follow up by school category

School category	Total	Never	Hardly ever	Occasionally	Often	Very often
Primary schools	88	16	12	22	21	17
Secondary schools	75	16	4	15	28	12
Combined schools	2	1				1
Total	**165**	**33**	**16**	**37**	**49**	**30**

Similar to the school category, when looking at the data by province, the majority of teachers, with the exception of Free State, indicated that they were regularly following up with their learners. This ranged from occasionally to very often. Fewer teachers indicated that they hardly ever or never followed up with their learners.

Table 15: Teacher follow up by province

Province	Total	Never	Hardly ever	Occasionally	Often	Very often
Northern Cape	1			1		
Limpopo	15	3	1	4	4	3
Eastern Cape	17	4	1	3	6	3
Free State	17	6	3	3	4	1
Gauteng	21	1	3	4	5	8
Western Cape	25	1	2	13	3	6
KwaZulu-Natal	65	15	6	9	25	10
Total	**161**	**30**	**16**	**37**	**47**	**31**

When looking at the data by phases, the majority of teachers also indicated that they were regularly following up with their learners. This ranged from occasionally to very often. Fewer teachers indicated that they hardly ever or never followed up with their learners.

Table 16: Teacher follow up by phase

Phase	Total	Never	Hardly ever	Occasionally	Often	Very often
Foundation	28	6	1	9	4	8
Foundation to Senior	3		1		2	

Intermediate	34	6	6	9	7	6
Intermediate and Senior	15	3	2	3	4	3
Intermediary to FET	5	1		1	1	2
Senior	12	4	2	1	3	2
Senior to FET	36	6	3	6	14	7
FET	31	7	1	8	12	3
Total	**164**	**33**	**16**	**37**	**47**	**31**

If teachers follow up, what method do they use most often?

Two thirds of respondents who had indicated that they follow up with their learners use WhatsApp to communicate with them. Other methods of communication include email (10%) and Google Classroom (7%). Another 5% of teachers indicated that they use a combination of methods, and these include: a combination of Facebook and WhatsApp; a combination of Zoom, WhatsApp and email; a combination of Class Dojo and Google Classroom; a combination of WhatsApp and Google Classroom; and a combination of Google Classroom, email and WhatsApp. Other methods of communication mentioned include Microsoft Forms, phone calls, SMS, school apps, Microsoft Teams and YouTube. One teacher also indicated that they follow up with their learners when the learners collect food packages.

Table 17: Teacher follow up method

Phase	N	%
Combined	6	5%
Email	13	10%
Facebook	1	1%
Google Classroom	9	7%
Microsoft Forms	1	1%
Phone call	2	2%
Physical	1	1%
School app	4	3%
SMS	1	1%
Teams	3	2%
Telegram	1	1%
WhatsApp	89	67%
YouTube	1	1%
Zoom	1	1%
Total	**133**	**100%**

Teacher rating of learner response

We asked teachers to rate the response that they get from learners on a scale of 1 (poor) to 5 (excellent). A significant proportion of teachers (32%) rated the response from learners as good. A very small number of teachers (4%) rated the response from learners as excellent, while over 20% of teachers indicated that the response from learners is poor.
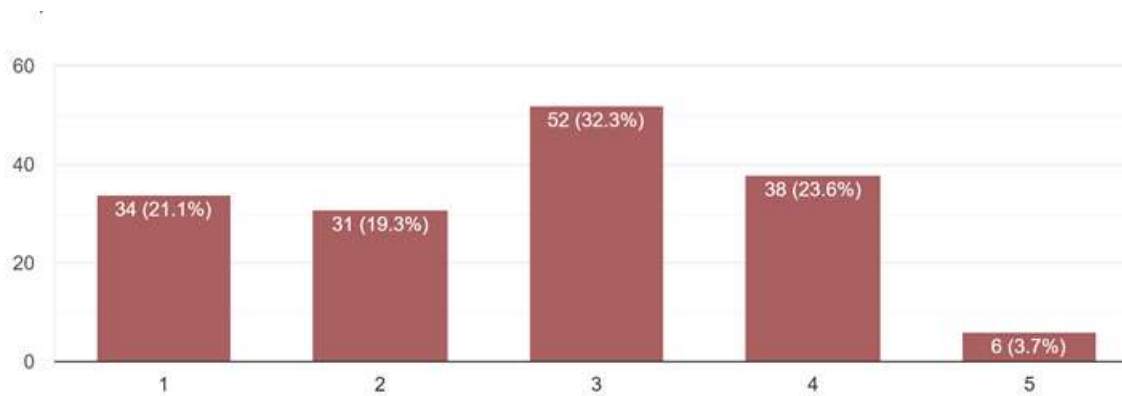
Figure 8: Learner response rating

5.1.7 Teacher awareness of TV and radio lessons

On average, 92,4% of teachers are aware of television and/or radio lessons. There are slight differences in the awareness levels by province, but the small sample may have skewed the results.
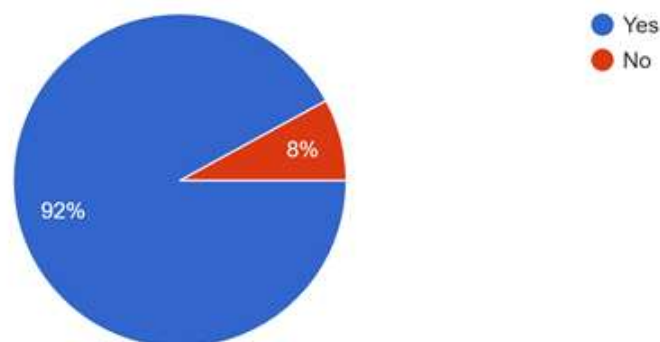
Figure 9: Teacher awareness of TV and radio lessons

Table 18: Teacher awareness by province

Province	%
Northern Cape	100,0%
Eastern Cape	95,0%
KwaZulu-Natal	93,9%
Free State	92,6%
Limpopo	92,3%
Western Cape	88,2%
Gauteng	84,6%
Average awareness	**92,4%**

The average of 92,4% of teachers by phase differs slightly due to the n/a (not applicable) values, but average awareness levels remain constant. There are slight variations across the phases, but these are not significant enough to pick up specific patterns.

Table 19: Teacher awareness by phase

Phase	%
Foundation	93,6%
Foundation to Senior	75,0%
Intermediate	82,6%
Intermediate to Senior	100,0%
Intermediate to FET	100,0%
Senior	100,0%
Senior/FET	90,7%
FET	94,4%
Total	**91,9%**

When looking at the data by school type, in all cases, the majority of teachers (over 90%) are aware of the TV and radio lessons.

Table 20: Teacher awareness by school category

School category	% awareness
Primary	91,0%
Secondary	93,1%
Combined	100,0%
Average	**91,9%**

The average of 92% of teachers by subject differs slightly due to the n/a values, but average awareness levels remain constant. There were slight variations across the subjects, but not significant enough to pick up specific patterns. The small numbers of responses and very different combinations of subjects accentuates the impact of a single teacher's response on the data – one n/a or unaware response significantly impacts the response rates (see Annexure E).

How did teachers learn about the TV and radio lessons?

Given the fact that there was no instruction to rank responses, the results, as with the subject combinations, did not provide meaningful information. There were 146 different responses due to the open-ended nature of the answer, making it very difficult to group them. What is clear is that people receive information from a wide range of sources including: social media (26%); word of mouth, WhatsApp (14%); TV and radio (15%); media (14%); the DBE in the form of communication from circuit offices, subject advisors and department websites (6%); and education NGOs, such as the Zenex Foundation and CASME (4%).

Table 21: Teachers' source of awareness

Source of awareness	N	%

DBE	8	6%
Education organisation	4	3%
Email	1	1%
Media	19	14%
Social media	36	26%
TV and radio	21	15%
WhatsApp	19	14%
Word of mouth	28	21%
Grand Total	**136**	**100%**

Have teachers shared information about the TV and radio lessons with parents?

Over 50% of teachers indicated that they had shared information about the TV and radio lessons with parents.

Figure 8: Teachers sharing information with parents

Table 22: Teacher sharing with parents by province

Province	% shared
Eastern Cape	63,6%
Free State	44,4%
Gauteng	57,7%
KwaZulu-Natal	54,9%
Limpopo	73,1%
Northern Cape	66,7%
Western Cape	44,4%
Average % shared	**55,4%**

Table 23: Teacher sharing with parents by phase

Phase	% shared
Foundation	47,9%
Foundation to Senior	75,0%
Intermediate	48,9%

Intermediate to Senior	28,6%
Intermediate to FET	80,0%
Senior	45,0%
Senior/FET	67,4%
FET	75,7%
Average % shared	**51,6%**

Table 24: Teacher sharing with parents by school category

School category	% shared
Primary	46,3%
Secondary	71,6%
Average % shared	**55,5%**

There is very little correlation between whether teaches shared information with parents depending on whether they sent workbooks home or not.

Table 25: Workbooks taken home[8]

Workbooks taken home	No	Yes
No	39,22%	60,78%
Yes	40,94%	59,06%
Average	**40,54%**	**59,46%**

Table 26: Teacher sharing with parents by province and phase

Phase	EC	FS	GT	KZN	LP	NC	WC
				%			
Foundation	100,0	29,0	57,1	75,0	71		82,4
Foundation to Senior		100,0	50,0	100,0			
Intermediate	75,0	91,0	55,6	38,5			50,0
Intermediate to Senior	100,0	50,0	100,0	55,6	67		
Intermediate to FET				50,0			
Senior	66,7			62,5	50		40,0
Senior/FET	20,0			43,3	67		
FET	66,7		50,0	46,2	80	100	50,0
Total	**68,1**	**62,0**	**50,0**	**48,8**	**69**	**66,7**	**61,8**

The average 92% of teachers by subject (Annexure E) differs slightly due to the n/a values, but average awareness levels remain constant. There were slight variations across the subjects, but not significant enough to pick up specific patterns. A small number of responses and very different combinations of subjects accentuate the impact of a single teacher's responses on the data – one n/a or unaware response significantly impacts the response rates.

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[8] % Percentage shared with parents depending on whether workbooks were sent home or not.

Have teachers shared information about the TV and radio lessons with learners?

Over 50% of teachers indicated that they have shared information about the TV and radio lessons with learners.
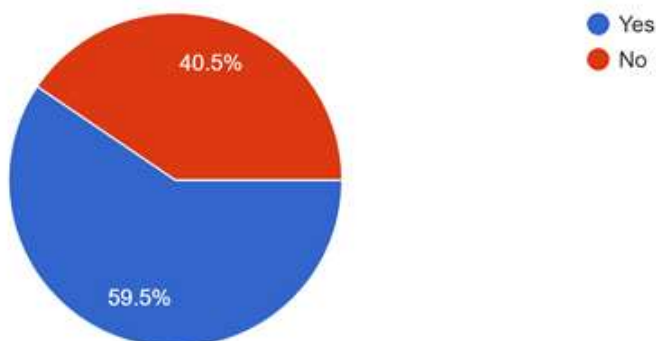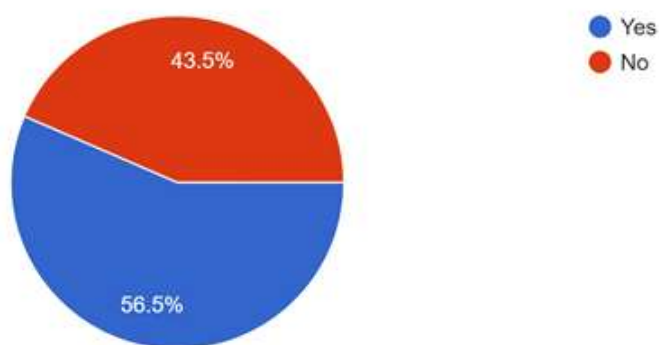

Figure 9: Teachers sharing information with learners

Table 27: Teachers sharing with learners by province

Province	% shared
Eastern Cape	66,7%
Free State	46,2%
Gauteng	57,7%
KwaZulu-Natal	56,3%
Limpopo	76,0%
Northern Cape	66,7%
Western Cape	47,1%
Total	**57,2%**

Table 28: Teachers sharing with learners by phase

Phase	% shared
Foundation	51,1%
Foundation to Senior	75,0%
Intermediate	51,1%
Intermediate and Senior	28,6%
Intermediate to FET	80,0%
Senior	45,0%
Senior to FET	69,0%
FET	75,7%
Total	**57,1%**

Table 29: Teachers sharing with learners by school category

School category	% shared
Primary school	48,5%
Secondary school	72,4%
Total	**56,5%**

There seems to be very little difference between whether teachers shared information with learners or not, depending on whether they sent workbooks home. If anything, sending workbooks home led to less sharing of information with learners. There may be many reasons for this, including that, having sent workbooks home, teachers thought learners would not need to watch TV lessons.

Table 30: Workbooks sent home[9]

	% not shared	% shared
No workbooks sent home	41,18%	58,82%
Workbooks sent home	44,19%	55,81%
Average	**42,68%**	**57,32%**

There seems to be a very strong correlation between the percentage of teachers who both made contact with their learners and who shared information regarding the TV programmes.

Table 31: Teacher sharing vs not sharing[10]

	% not shared	% shared
No	63,00%	37,00%
Yes	26,67%	73,33%
Average	**43,18%**	**56,82%**

There is a significant difference in the information shared with parents relative to learners, and relative to the school category. Teachers share very little with learners compared to sharing with parents. There is also a big difference between the amount of information shared with parents of primary school learners and those with learners in secondary school. What is not clear from the question is whether this controls for parents with learners in both primary and secondary schools.

Table 32: Teacher sharing vs not sharing by school category

School category	% not shared	% shared
Primary	37,3%	96,8%
Secondary	16,7%	61,9%
Total	**30,9%**	**79,4%**

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[9] Percentage of teachers shared with learners if workbooks were sent home or not.

[10] Percentage of teacher shared with learners if teachers made contact with learners or not.

Are teachers personally watching or listening to the broadcasts?

There is a significant difference between teachers from different provinces watching TV and/or listening to the radio for educational purposes. The province with the biggest percentage of TV watching only constituted a small part of the sample, which may have skewed the results. However, the next three provinces with a bigger number of respondents, and those with low levels of watching, show a big difference in teacher responses by province.
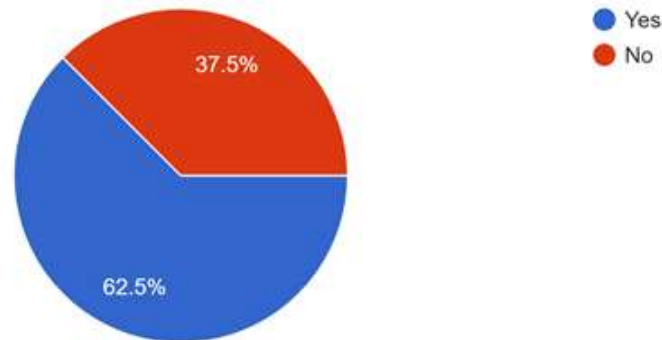
Figure 10: Teachers watching TV and radio lessons

Table 33: Teachers watching TV and radio lessons by province

Province	No	Yes
Gauteng	57,69%	42,31%
Western Cape	50,00%	50,00%
KwaZulu-Natal	43,75%	56,25%
Limpopo	24,00%	76,00%
Eastern Cape	22,73%	77,27%
Free State	7,69%	92,31%
Northern Cape	0,00%	100,00%
Average	**37,04%**	**62,96%**

Table 34: Teachers watching TV and radio lessons by province

Phase	No	Yes
Foundation	31,91%	68,09%
Foundation–Senior	50,00%	50,00%
Intermediate	26,67%	73,33%
Intermediate–Senior	10,00%	90,00%
Intermediate–FET	80,00%	20,00%
Senior	35,00%	65,00%
Senior–FET	50,00%	50,00%
FET	48,65%	51,35%
Average	**37,50%**	**62,50%**

Table 35: Teachers watching TV and radio lessons by school category

School category	No	Yes
Primary	27,48%	72,52%
Secondary	50,57%	49,43%
Combined	33,33%	66,67%
Average	**37,50%**	**62,50%**

5.1.8   What type of support do teachers require for Term 2?

The lack of sufficient differentiation between the items presented a major data challenge. A better way to pose the question may have been to ask teachers to rank them in order of importance.

At least 39% of respondents marked all items as equally important. Looking at the percentage of "Most important" or "Less important" is not very interesting as there is not much difference. It is more informative to look at the difference between choices because this not only indicates what is most liked, but also shows how significant the difference between choices is. Not only is Revision regarded as the most important by most respondents, but also the fewest respondents regard Revision as not important. Worksheets are regarded as most important by a similar number of respondents, but a bigger number regard them as less important. It is therefore clear that Revision is regarded as the key support mechanism, with Worksheets less so, followed by Lesson Plans and then Audio-visual Material. It is when considering the combination of the three variables that the strongest and weakest preference becomes clearer.

Table 36: Type of support required by teachers

Type of support	% most important	% less important	% difference
Lesson plans	73,2%	26,3%	47,0%
Worksheets	81,7%	17,8%	63,8%
Revision	86,6%	13,4%	73,3%
Audio-visual	77,3%	22,7%	54,7%
Average	**79,8%**	**25,0%**	

Table 37: Type of support required by teachers – most important

Type of support	% most important
Revision	86,6%
Worksheets	81,7%
Audio-visual	77,3%
Lesson plans	73,2%
Average	**79,8%**

Table 38: Type of support required by teachers – less important

Type of support	% less important
Lesson plans	26,3%
Worksheets	17,8%
Revision	13,4%

Audio-visual	22,7%
Average	**25,0%**

Table 39: Type of support required by teachers – difference

Type of Support	% difference
Lesson plans	47,0%
Worksheets	63,8%
Revision	73,3%
Audio-visual	54,7%
Average	**59,7%**

5.1.9   Conclusion

In conclusion, the research shows that, to a large extent, teaching and learning is continuing during the lockdown period. Over half of teachers have been in contact with their learners since the lockdown started. Three quarters of teachers indicated that their learners took their workbooks and textbooks home. Moreover, another three quarters of teachers indicated that learners are using their workbooks and textbooks to learn. Sixty percent of teachers indicated that they are setting tasks for learners during this lockdown period, and that there is some follow up. Over 90% of teachers are aware of TV and radio lessons, and many teachers have shared information on these lessons with learners and parents. Most teachers also indicated that they are personally listening to the TV and radio lessons.

5.2   Learner survey findings

The learner survey was designed to gather information on whether learners are continuing to learn while at home during lockdown, and, if they are, what resources they are using for their studies. The results of the survey are presented below.

5.2.1   Respondent demographics

Figure 11 shows the number of learners that took part in the survey, which was distributed to the public from 7–22 April 2020. The data shows us that a large percentage of the learners were from KwaZulu-Natal (50%) and most of them are completing Grade 12 (48%). This group is followed by the Eastern Cape and Limpopo, with 21% and 11% respectively. There was a very low number of respondents from Mpumalanga and the Northern Cape, with only 1% each.
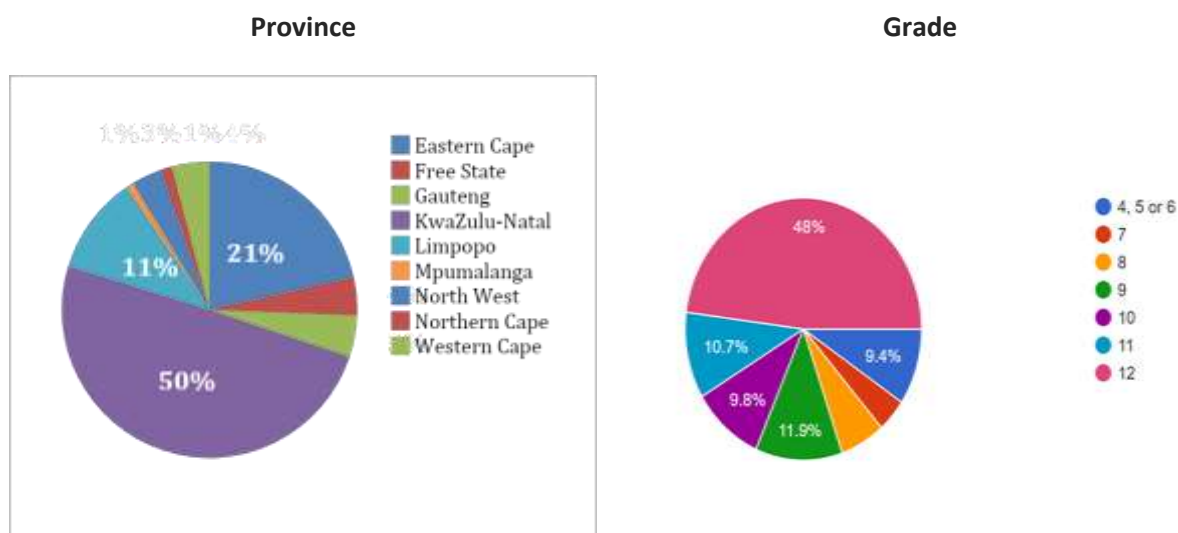
Province	Grade

Figure 11: Learner survey respondents

Table 40 provides a breakdown of the learner respondents by grade and province. When looking closely at the figures presented, a pattern seems to arise. We see that, in most provinces, learners in Grade 9–12 make up the majority of the respondents. This can be explained by the importance of these grades for learners' future career and education paths. Grade 9 learners are given the opportunity to leave the traditional education system and follow more technical or vocational training, while those who choose to remain in the traditional system depend on their Grade 11 and Grade 12 results to ensure their place in higher education institutions to further their education.

Table 40: Respondents by province and grade[11]

Province	G 4–6		G 7		G 8		G 9		G 10		G 11		G 12		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
Eastern Cape	1	2	2	4	12	23	16	31	12	23	1	2	8	15	52
Free State	9	90	1	10		0	0	0		0	0	0	0	0	10
Gauteng	1	9		0		0	1	9	4	36	2	18	3	27	11
KwaZulu-Natal	5	4	1	1	1	1	11	9	3	3	18	15	80	67	120
Limpopo	3	12	1	4	2	8	0	0	1	4	4	15	15	58	26
Mpumalanga	0	0	0	0	0	0	0	0	1	50	0	0	1	50	2
Northern Cape	1	13	1	13	0	0	0	0	0	0	0	0	6	75	8
North West	0	0	0	0	0	0	0	0	0	0	0	0	3	100	3
Western Cape	3	30	3	30	0	0	1	10	2	20	0	0	1	10	10
Total	**23**	**10**	**9**	**4**	**15**	**6**	**29**	**12**	**23**	**10**	**25**	**10**	**117**	**48**	**242**

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[11] Four respondents out of the 246 did not provide provincial information and have not been included in this table.

5.2.2 Did learners take their workbooks home before lockdown?

We asked respondents whether they took their workbooks home before lockdown. Figure 12 illustrates that the majority of the participants (91%) were able to take their workbooks home. This indicates that a majority of learners had access to offline resources to continue working on their school work during the lockdown period. This means that the rest of the learners were either using other types of resources besides their workbooks to continue learning, or they were not doing any form of learning during this period.
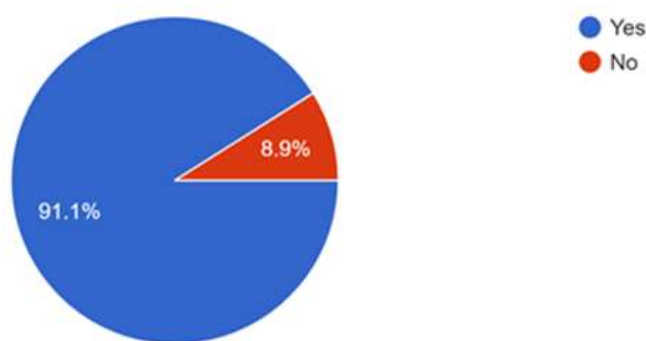

Figure 12: Learners who took workbooks home

Table 41 gives a further breakdown of the information provided in Figure 12. The numbers show that most respondents were able to take their workbooks home in all provinces except for North West. With respect to those who did not take their workbooks home, it is hard to find out why without getting more information from the participants.

Table 41: Learners who took workbooks home by province

Did you take your workbooks or textbooks home before lockdown?	No		Yes	
	N	%	N	%
Eastern Cape	3	6%	49	94%
Free State	1	10%	9	90%
Gauteng	1	9%	10	91%
KwaZulu-Natal	12	10%	108	90%
Limpopo	0	0%	26	100%
Mpumalanga	0	0%	2	100%
Northern Cape	0	0%	3	100%
North West	4	50%	4	50%
Western Cape	1	10%	9	90%
Total	**22**	**9%**	**220**	**91%**
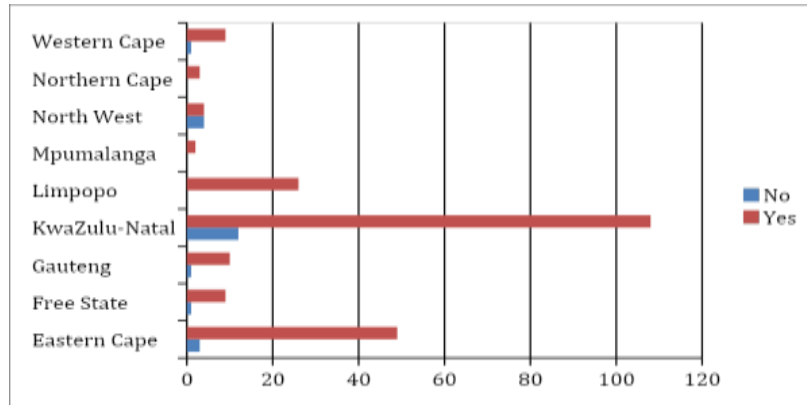
Figure 13: Learners who took workbooks home by province

Table 42 and Figure 14 show that a large percentage of learners in all grades were able to take their workbooks home before lockdown. All learners in Grade 8 and Grade 10 took their workbooks home.

Table 42: Learners who took workbooks home by grade

Did you take your workbooks or textbooks home before lockdown?	G 4–6	G 7	G 8	G 9	G 10	G 11	G 12
Yes	20	8	15	26	24	20	109
No	3	2	0	3	0	6	8
Total	**23**	**10**	**15**	**29**	**24**	**26**	**117**

Figure 14: Learners who took workbooks home by grade

In addition, over 90% of learners in Grade 12 also took their workbooks home.

Table 43: Grade 12 learners who took workbooks home

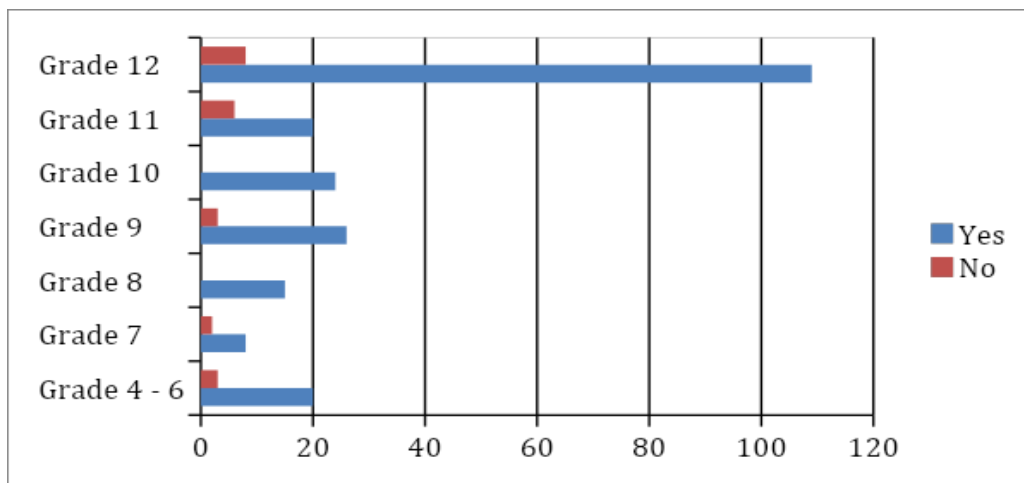| Did you take your workbooks or textbooks home before lockdown?	G 12	
	N	%
Yes	109	93%
No	8	7%
Total	**117**	**100%**

5.2.3   Do learners have a personal study timetable that they follow on a regular basis?

The data shows that, overall, there is a small difference (6%) between those who have a personal study timetable and those who do not.
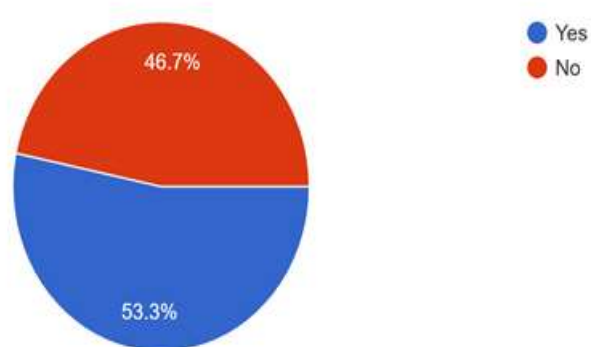
Figure 15: Learners with a personal study timetable

A large percentage of learners in Limpopo, Gauteng and Free State have a timetable that they follow regularly, while learners in the Western Cape, Northern Cape and North West do not have such a timetable (Table 44).

Table 44: Learners with personal study timetable by province

Do you have a personal study/learning timetable that you follow on a regular basis?	No		Yes	
	N	%	N	%
Eastern Cape	28	54%	24	46%
Free State	2	20%	8	80%
Gauteng	2	18%	9	82%
KwaZulu-Natal	56	47%	64	53%
Limpopo	8	31%	18	69%
Mpumalanga	1	50%	1	50%
Northern Cape	7	88%	1	13%
North West	2	67%	1	33%
Western Cape	7	70%	3	30%
Total	**113**	**47%**	**129**	**53%**

Figure 16: Learners with personal study timetable by province
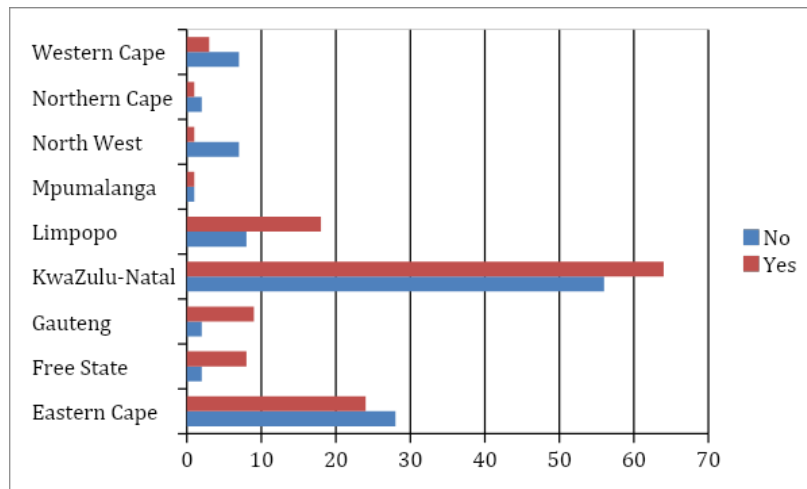
When the data is broken down into grades, we see that more learners in Grade 8, 9 and 12 have a study timetable than those who do not. On the other hand, there is a larger number of learners in Grade 4–6, and Grade 10 and 11 who do not have a study timetable than those who do.

When looking at Grade 12 learners, a greater proportion of learners indicated that they have a study timetable that they follow on a regular basis, which makes sense given the pressure of the end of the year exams and the significant preparation required. It is important to note, however, that a large number of Grade 12 learners indicated that they do not have a personal study timetable. When looking at the other high school grades, a significant percentage of them also indicated that they do not have a personal study or learning timetable. Clearly, some learners are continuing with their studies in a structured manner while others are not. This could present a challenge for teachers and learners once the lockdown is over.

Table 45: Learners with personal study timetable by grade

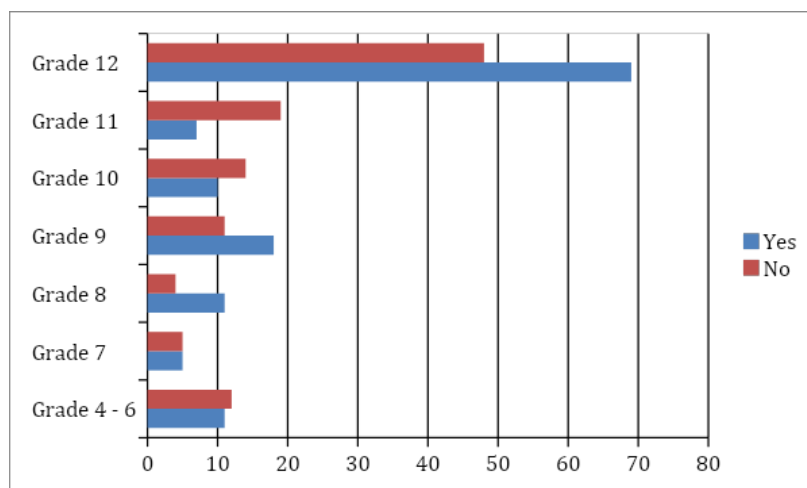| Do you have a personal study/learning timetable that you follow on a regular basis?	G 4–6	G 7	G 8	G 9	G 10	G 11	G 12
Yes	11	5	11	18	10	7	69
No	12	5	4	11	14	19	48
Total	**23**	**10**	**15**	**29**	**24**	**26**	**117**

Figure 17: Learners with personal study timetable by grade

Table 46 shows that 41% of the Grade 12 learners surveyed, which is quite a significant number, do not have a personal study timetable. This information should raise huge concerns with the DBE with regards to this year's matric exams. It is not clear whether learners are able to effectively continue with their studies during this lockdown period and if this year's matric exams can take place in the usual manner. There is a chance that the full syllabus will not be covered given all the teaching and learning time lost during the lockdown period, and many learners may not be able to absorb the rest of the curriculum when the accelerated programme is put into place.

Table 46: Grade 12 learners with a personal study timetable

Do you have a personal study/learning timetable that you follow on a regular basis?	Grade 12	
	N	%
Yes	69	59%
No	48	41%
Yes	69	59%

5.2.4   Are learners making time every day to learn or study?

The majority (77.1%) of the learners have indicated they are making time to study every day. It seems that learners have been able to continue with some form of learning from home during this lockdown period. There are various factors that could affect the continuation of the study process such as: the areas in which the respondents live; the types of schools the respondents attend; and the engagement of teachers, amongst others. The accessibility of resources and support play an important role in learners being able to continue with their studies.
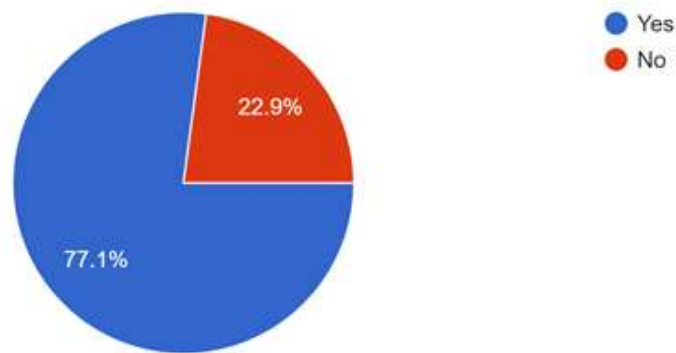
Figure 18: Learners making time to study

Table 47 indicates the number of respondents studying every day, by province. A large percentage of respondents from most of the provinces indicated that they are studying every day. Respondents from Mpumalanga are the only ones who indicated that they do not study every day. However, it is important to note the small sample size of Mpumalanga respondents makes drawing conclusions more difficult.

Table 47: Learners making time to study by province

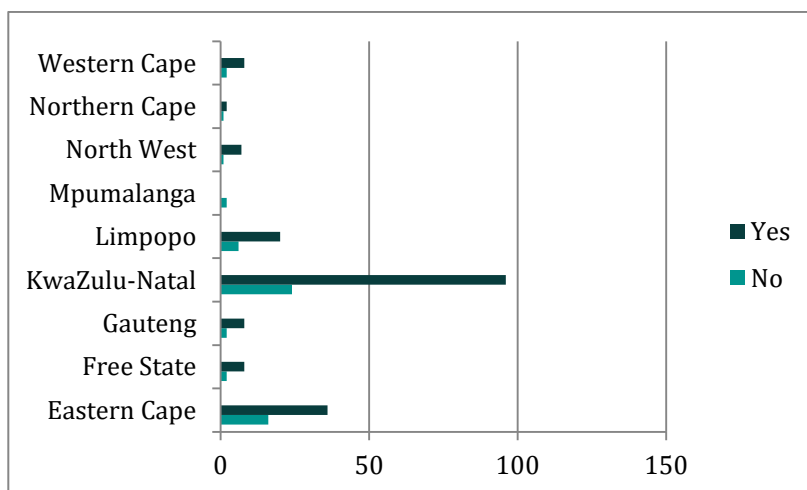| Are you making time every day to learn or study?	No		Yes	
	N	%	N	%
Eastern Cape	16	31%	36	69%
Free State	2	20%	8	80%
Gauteng	2	20%	8	80%
KwaZulu-Natal	24	20%	96	80%
Limpopo	6	23%	20	77%
Mpumalanga	2	100%	0	0%
Northern Cape	1	13%	7	88%
North West	1	33%	2	67%
Western Cape	2	20%	8	80%
Total	**56**	**23%**	**185**	**77%**

Figure 19: Learners making time to study by province

Table 48 shows the number of learners making time to study every day, by grades. In all cases except for Grade 8, more learners are making time to study than those that are not.

Table 48: Learners making time to study by grade

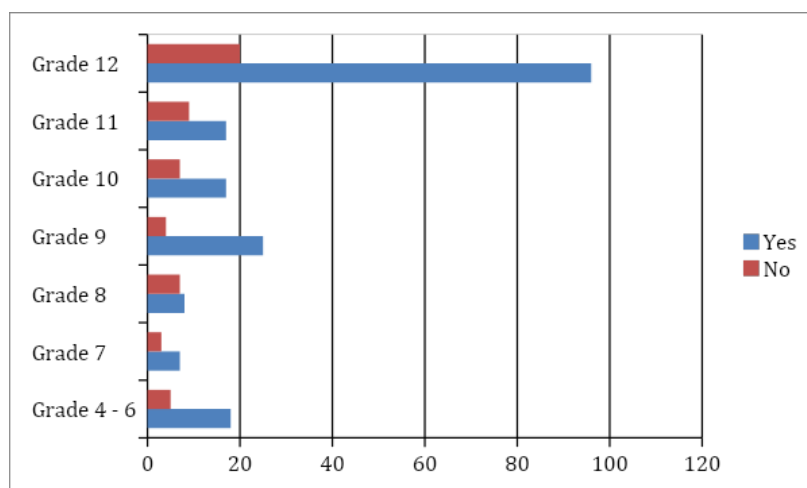| Are you making time every day to learn or study?	G 4–6	G 7	G 8	G 9	G 10	G 11	G 12
Yes	18	7	8	25	17	17	96
No	5	3	7	4	7	9	20
Total	**23**	**10**	**15**	**29**	**24**	**26**	**116**

Figure 20: Learners making time to study by grade

In the South African education system, a great emphasis is placed on the Grade 12 final exams because they play a large role in determining learners' trajectory into higher education. Table 49 indicates that a significant number of Grade 12 learners (83%) are making time every day to study. The fact that 17% are

not making time to study every day does not mean they are not studying at all; it is possible that these learners are continuing to study but not regularly every day.

Table 49: Grade 12 learners making time to study

Are you making time every day to learn or study?	Grade 12	
	N	%
Yes	96	83%
No	20	17%
Total	**116**	**100%**

5.2.5   How often are learners learning every day?

Figure 21 illustrates how often the surveyed learners study in a day, with 22% of the respondents studying the same amount as when they were in school. This indicates that a number of learners have maintained their study routines while at home during the lockdown.
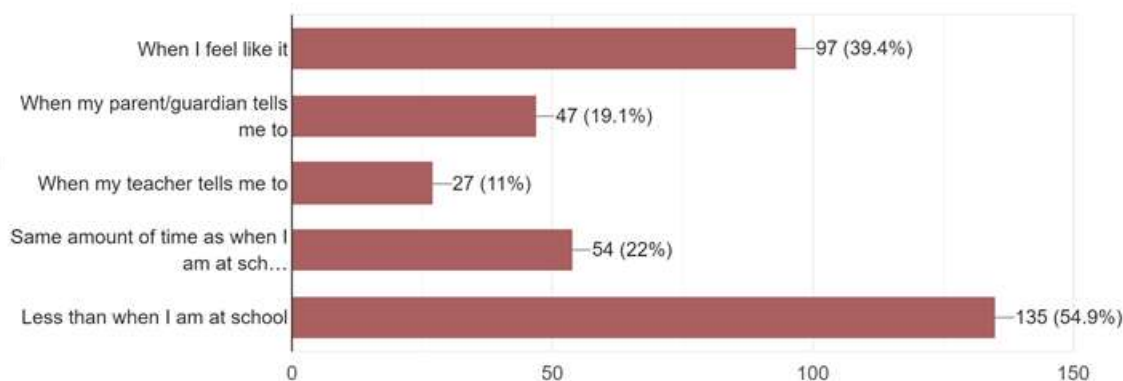

Figure 21: How often learners are learning every day

A large number of respondents (54.9%) are studying at home, but they indicate that they study less than when they were in school. A fifth of the respondents (19%) study when their parents or guardians tell them to. This factor depends on learners' ages – Grade 11 and 12 learners are at an age where their parents should not always need to tell them when to study. However, a number of Grade 11 and 12 respondents do only study when their parents tell them to.

Another 11% of respondents study when their parents and their teachers tell them to. On one hand, this small percentage could mean that most learners are self-motivated. On the other, it could indicate that there is not enough engagement and communication between the teachers and learners during this time.

Notably, 39.4% of the respondents indicated that they study when they feel like it. This could mean that learners might not feel under as much pressure without a schedule set by their schools, teachers, parents or themselves. A lack of resources could be another reason for the lack of motivation to study.

5.2.6 What do learners use for their studies at home?

Figure 22 shows that the respondents rely mostly on their textbooks to study (80.1%). This indicates the importance of each learner having their own textbooks. Another 43.9% indicated that they use subject material to study, showing that some teachers were able to give learners subject study material before the lockdown.

A large number of respondents (56%) also indicated that they study using online resources – the second-highest study tool option. The combination of textbook, subject material, online resources and study guides indicates that the learners are using various tools to find sufficient relevant information for their studies.
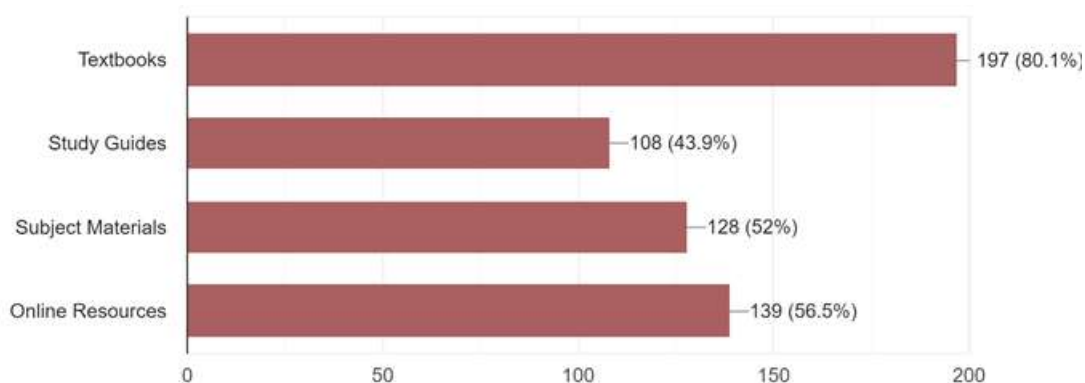

Figure 22: What learners use for their studies at home

5.2.7 Do learners know about the radio broadcast lessons?

Figure 23 shows that a greater number of the respondents (67,8%) were aware of academic support through radio broadcast lessons than those who were not (32.2%).
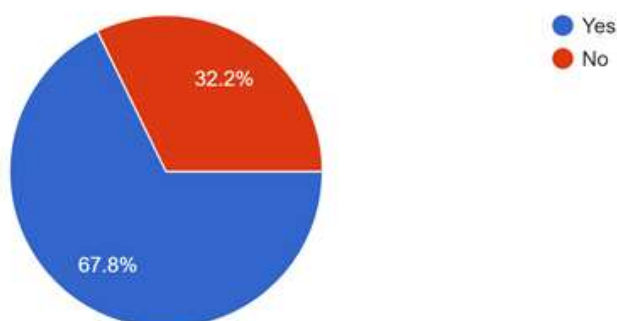

Figure 23: Learner awareness of radio broadcast lessons

Table 50 shows the number of respondents aware of the radio broadcast lessons. The Western Cape had the highest percentage of respondents (80%) who had not heard about the radio broadcast lessons. The Eastern Cape, Mpumalanga and North West also had a high percentage of learners who were not aware of these lessons. All learners from the Free State and most learners from Gauteng, KwaZulu-Natal and Limpopo indicated that they were aware of the radio lessons.

Table 50: Learner awareness of radio broadcast lessons by province

Do you know about the radio broadcast lessons?	No		Yes	
	N	%	N	%
Eastern Cape	28	54%	24	46%
Free State	0	0%	10	100%
Gauteng	3	27%	8	73%
KwaZulu-Natal	25	21%	95	79%
Limpopo	7	27%	19	73%
Mpumalanga	1	50%	1	50%
Northern Cape	3	43%	4	57%
North West	2	67%	1	33%
Western Cape	8	80%	2	20%
Total	**77**	**32%**	**164**	**68%**
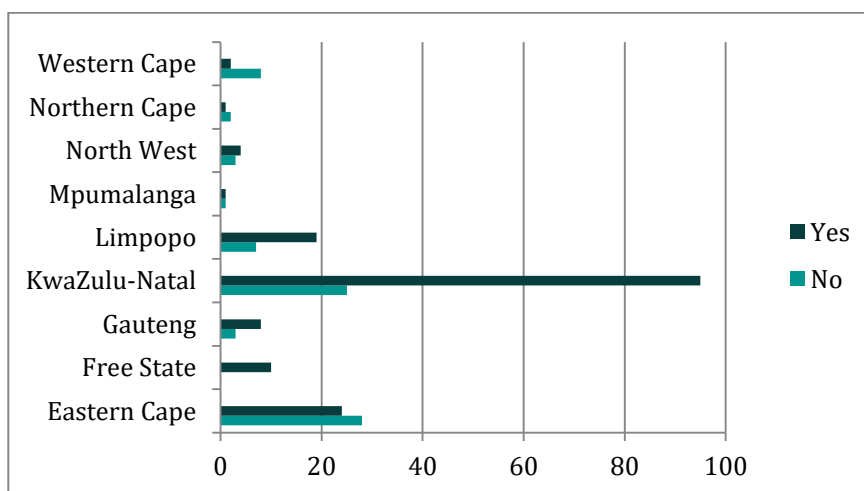
Figure 24: Learner awareness of radio broadcast lessons by province

Table 51 gives a further breakdown of the responses by grades. In most grades, a larger proportion of learners indicated that they were aware of the radio broadcast lessons than those who were not. There were more learners in Grade 9 who were not aware of the radio broadcast lessons than in other grades. In Grade 7, 10 and Grade 11, there was an even split between learners who were aware and those who were not.

Table 51: Learner awareness of radio broadcast lessons by grade

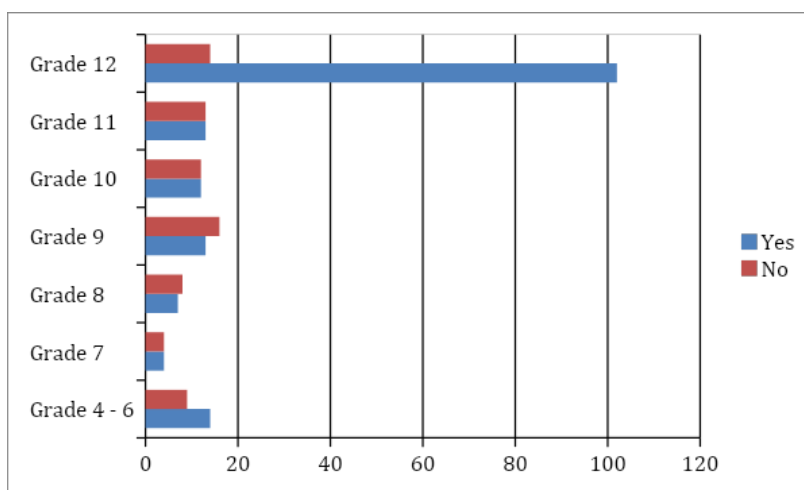| Do you know about the radio broadcast lessons?	G 4–6	G 7	G 8	G 9	G 10	G 11	G 12
Yes	14	4	7	13	12	13	102
No	9	4	8	16	12	13	14
Total	**23**	**10**	**15**	**29**	**24**	**26**	**116**

Figure 25: Learner awareness of radio broadcast lessons by grade

Table 52 shows that a larger proportion of Grade 12 learners (88%) were aware of the radio broadcast lessons compared to those who were not (12%).

Table 52: Grade 12 learner awareness of radio broadcast lessons

Do you know about the radio broadcast lessons?	Grade 12	
	N	%
Yes	102	88%
No	14	12%
Total	**116**	**100%**

5.2.8   Have learners been listening to the radio broadcast lessons?

Figure 26 shows that even though they were aware of the radio lessons, the majority of respondents (63.1%) do not actually listen to them. Only 19.4% of the participants listened as often as possible. The reason for the high number of non-listeners might be linked to the fact that not many of them listen to the radio in the first place, or that they were simply not aware of the radio lessons. This, unfortunately, is because radio is considered a dying form of media in urban areas, and radios are seldom found in modern homes.
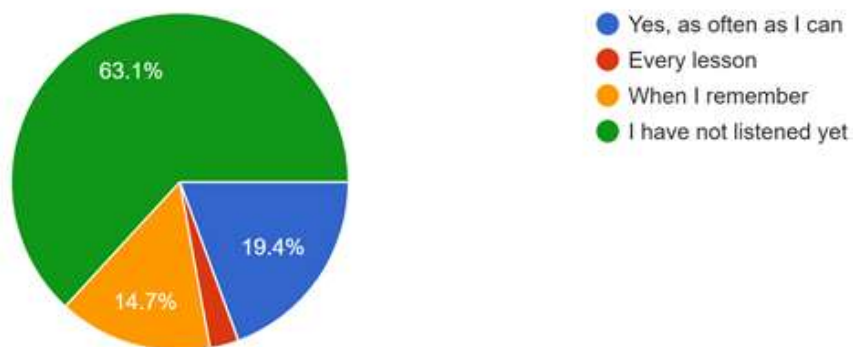
Figure 26: Learners who listen to radio broadcast lessons

Table 53 illustrates that in most provinces, with the exception of Limpopo and the Free State, the majority of learners in each province have not listened to the radio broadcast lessons. However, there are also a significant number of learners in the Eastern Cape, Free State, Gauteng, KwaZulu-Natal and Limpopo who have been listening to the lessons. Most of these provinces, with the exception of Gauteng, are classified as rural provinces. Schools in these kinds of provinces often lack the resources to print out entire workbooks, and learners in these areas often do not have access to technology and online resources. This could possibly explain the somewhat higher number of respondents who have listened to the broadcast lessons in these areas.

Table 53: Learners who listen to radio broadcast lessons by province

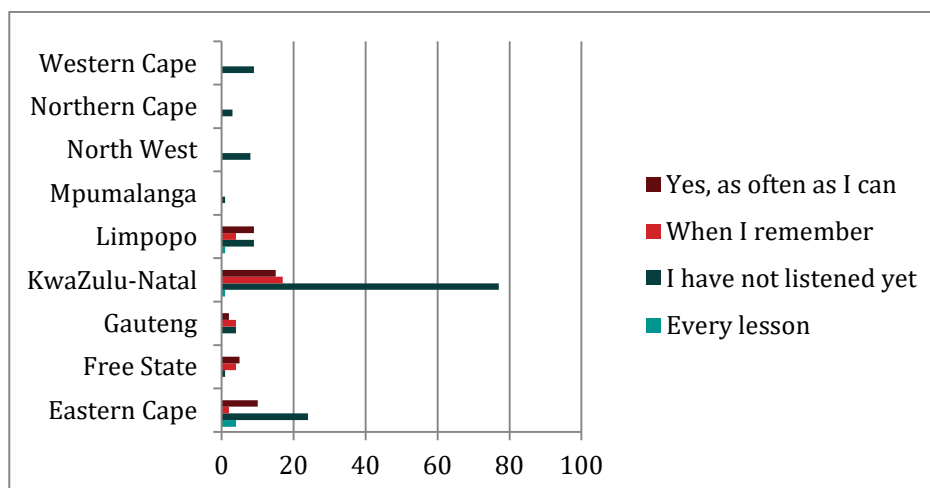| Have you been listening to the radio broadcast lessons?	Every lesson	I have not listened yet	When I remember	Yes, as often as I can
Eastern Cape	4	24	2	10
Free State	0	1	4	5
Gauteng	0	4	4	2
KwaZulu-Natal	1	77	17	15
Limpopo	1	9	4	9
Mpumalanga	0	1	0	0
Northern Cape	0	8	0	0
North West	0	3	0	0
Western Cape	0	9	0	0
Total	**6**	**136**	**31**	**41**

Figure 27: Learners who listen to radio broadcast lessons by province

Table 54 provides a further breakdown of the information by grades. In most grades, significant numbers of learners have not listened to the radio broadcast lessons. Grade 4–6, Grade 8 and Grade 12 have the largest percentage of learners who do listen to the radio broadcast lessons. In the case of Grade 12, it is important to have such resources so that learning can continue at home in some form. In the case of the grades with the second-highest numbers of learners listening to the lessons, namely Grade 4–6, this could mainly be because most radio stations have had educational segments from Monday to Friday (14:00–17:00) that are directed at primary school education with a focus on Mathematics and the home language of the listener.

Table 54: Learners who listen to radio broadcast lessons by grade

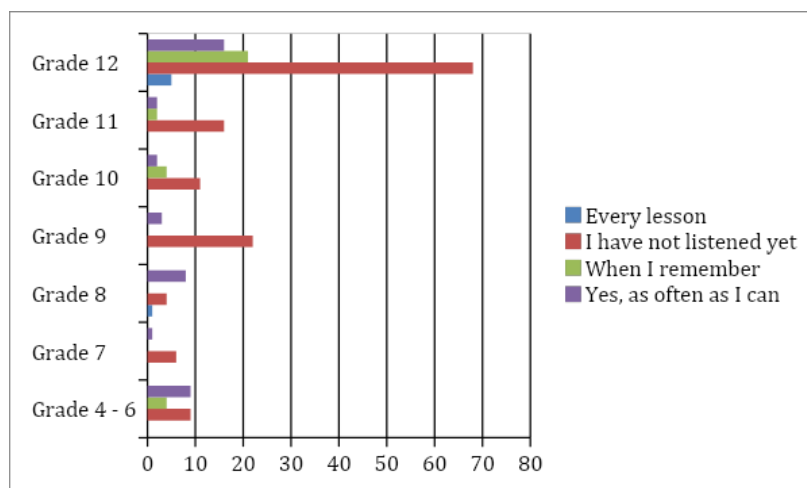| Have you been listening to the radio broadcast lessons?	G 4–6	G 7	G 8	G 9	G 10	G 11	G 12
Every lesson	0	0	1	0	0	0	5
I have not listened yet	9	6	4	22	11	16	68
When I remember	4	0	0	0	4	2	21
Yes, as often as I can	9	1	8	3	2	2	16

Figure 28: Learners who listen to radio broadcast lessons by grade

Table 55 shows that although the majority of Grade 12 learners do not listen to the radio broadcast lessons, close to 40% are making use of this resource in some way. The combination of textbook, subject material, online resources and study guides discussed previously could possibly indicate that learners are making use of other resources and thus do not need to listen to these radio lessons. Learners could also be using other media to help them study, such as YouTube videos and other online resources.

Table 55: Grade 12 learners who listen to radio broadcast lessons

Have you been listening to the radio broadcast lessons?	Grade 12	
	N	%
Every lesson	5	5%
I have not listened yet	68	62%
When I remember	21	19%
Yes, as often as I can	16	14%
Total	**110**	**100%**

5.2.9   Who do learners ask for help if they experience challenges with the lessons presented on the radio or TV?

Figure 29 shows that 56% of the respondents rely a great deal on their peers for educational support. This could stem from the respondents' need for social interaction with their peers during this time. A large percentage (47%) of learners also indicated that they go to their parents for assistance, which makes sense seeing as learners are at home with their parents, who would be more accessible than their teachers. Nearly half the learners (44.5%) are asking their teachers for assistance, which indicates that there is some engagement.
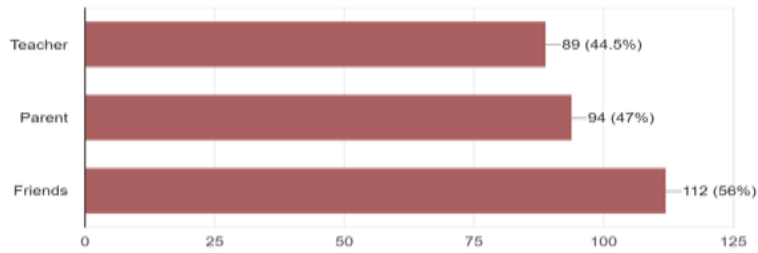
Figure 29: Where learners get assistance if they experience problems with radio or TV lessons

5.2.10 Conclusion

In conclusion, the research indicates that the majority of learners took their workbooks home before lockdown and that most learners are making time to study every day – although in some cases this is not structured in the form of a regular personal study timetable. Notably, most learners indicated that they are studying less than when they were in school, which is understandable given the lack of a routine.

Most learners are using a combination of textbooks, study guides, subject materials and online resources for their studies at home. This also further emphasises the importance of each learner having access to their own study materials, such as textbooks and study guides, because this allows learners to continue with their studies independently while in situations such as the current one. Even though only one-third of learners indicated that they were not aware of the radio broadcast lessons, two-thirds who were aware of the lessons indicated that they had not listened to any yet. There could be a number of reasons for this, including learners having access to the other teaching and learning resources discussed above. Lastly, the research indicates that learners are mostly using their peers as a source of support, with teachers and parents as their supplementary support.

Half of the survey respondents were Grade 12 learners. A great emphasis is placed on Grade 12 because of the school leaving exams at the end of that year. Therefore, having access to such a large sample of Grade 12 learners provides some useful insights into this important group.

5.3 Parent survey findings

The parent survey comprised 20 questions that addressed topics such as socio-economic circumstances; resource access; engagement (parent-to-learner and parent-to-teacher); awareness (with regards to the COVID-19 global pandemic and how it has impacted schooling); and the type of support that the parents would most benefit from while supporting their children with their schooling. The results of the parent survey are presented below.

5.3.1 Respondent demographics

Overview

Figure 30 provides an overview of the demographics of the parent survey respondents. A large number of respondents were from Gauteng (23%) and Mpumalanga (22%), while Northern Cape was not well represented with only 1% of the respondents. The respondents were mainly female (84%). Approximately 44% of respondents indicated that they were from urban areas, while 32% and 3% were from rural areas and informal settlements, respectively. The good proportion of respondents from rural settings and informal settlements combined indicates that these individuals are making an effort to continue their children's schooling, despite having less than optimal access to telecommunications and other learning resources.

Parents in this sample are highly educated, with over 80% possessing a higher certificate and above. It is interesting to note, however, that despite this level of education, some parents expressed the view that their knowledge and confidence was challenged by the requirements of their children's studies.

> *As much as I have access to learning resources, teaching a child is challenging when you are not a qualified teacher. I worry whether what I am doing with her is enough.*

> *It unrealistic to teach curriculum by a parent who has not studied the current curriculum or been an educator in an environment especially with younger siblings in play.*

> *I just feel that our children need to go back to school. This is because as parents we can't help with everything and even if we do have access to certain resources, which we don't, we as parents may fall short in certain areas such as patience, which is something we need in order to teach our children effectively and in order to avoid conflict.*

> *It's hard when trying to help them since we are not professional teachers … they oppose my teaching … they say I'm not explaining like their teacher ☺.*

> *I would like to assist my children but they are doing subjects which are out of my area of understanding.*
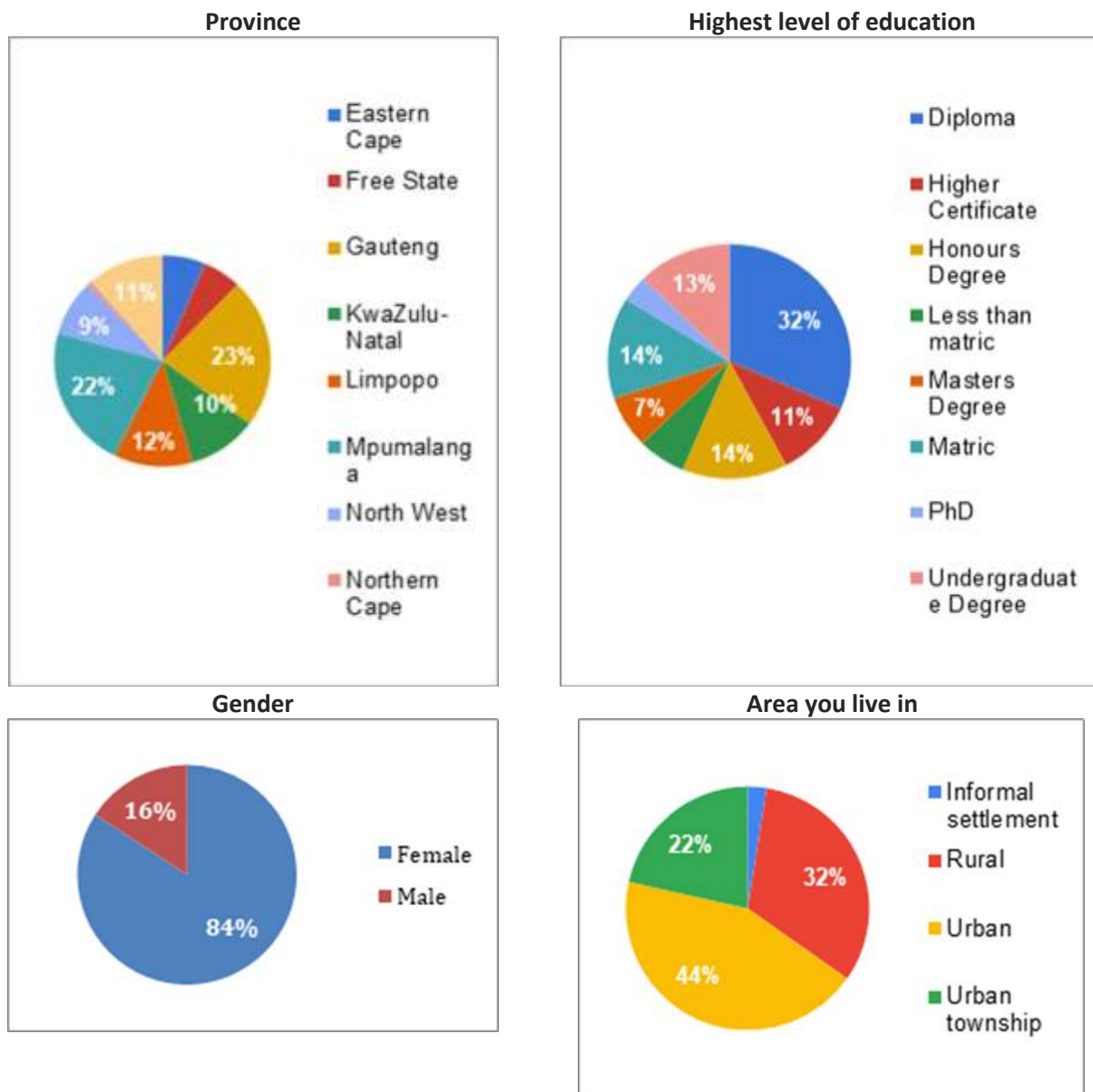
Province

Highest level of education

Gender

Area you live in

Figure 30: Demographics of parents

Children's grades

The majority of the caregivers indicated that they have either two or three children in school, with more than half of these learners in the Foundation Phase. This does not necessarily indicate that learners in Grade 10–12 are not a priority, but it may show that the Foundation Phase requires a more hands-on teaching approach; learners in higher grades are able to continue with learning by themselves, requiring less supervision.

Children's schools

A combined total of 72.8% of respondents indicated that their children attend either a private or public fee-charging school (29.4% and 43.4%, respectively), while 27.2% respondents indicated a no-fee school.

This shows that more than 30% of learners are from a less advantaged (rural) background and have little to no access to telecommunication services and/or devices. Considering that e-learning will play a significant role in schooling for many months to come, this is a concerning observation.

Gauteng had the highest percentage of respondents who indicated that their children were enrolled in fee-charging private and public schools (10% each), which accounts for 20% of the total respondents. Mpumalanga had the highest number (12%) of respondents who indicated that their children were enrolled in no-fee public schools. Moreover, Mpumalanga also had the highest number of respondents (13%) that indicated that they resided in a rural area.
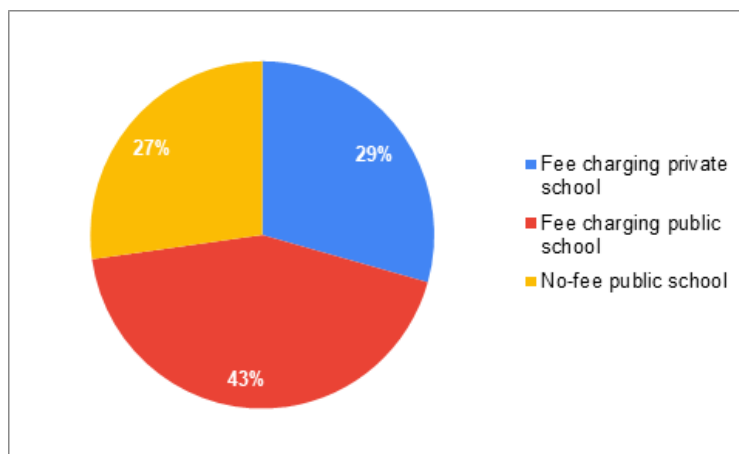
Figure 31: Children's schools

Parents working from home

A large percentage of parents are continuing to work during the lockdown period, with almost 43% working from home and another small percentage representing essential workers working outside of home.

Figure 32 shows the proportion of respondents who are working from home (yes); who are not working from home (no); who are essential workers working outside of home; and who are unemployed.
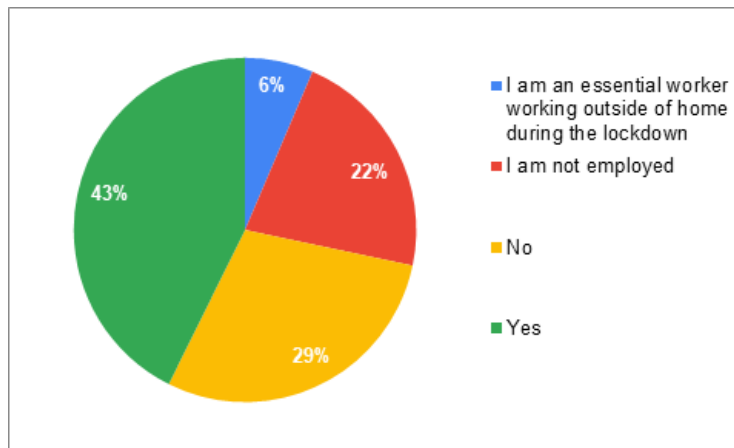
Figure 32: Parental involvement

5.3.2   Parental engagement

Parent–learner engagement

Children continuing with their studies during the lockdown period

When asked if their children were continuing with their studies during the lockdown period (in some or other form), 78% of respondents indicated that their children have been, indicating that there has not been a complete disruption to learning. If, by factoring in living conditions, we take a closer look at the 22% who indicated that their child/children had stopped learning, we see that the majority of these respondents come from rural areas (44%). The majority of respondents who indicated that their child/children had continued learning come from urban areas (49%). This suggests a correlation between a child's location and his/her ability to continue studying during a lockdown. It is likely that urban dwellers have better access to the information and resources required to facilitate distance learning, such as internet connections/data/television/computers, etc., which are not as readily available in less urban settings. Such findings should form the basis of targeted campaigns to improve access to resources and information in less developed locations.
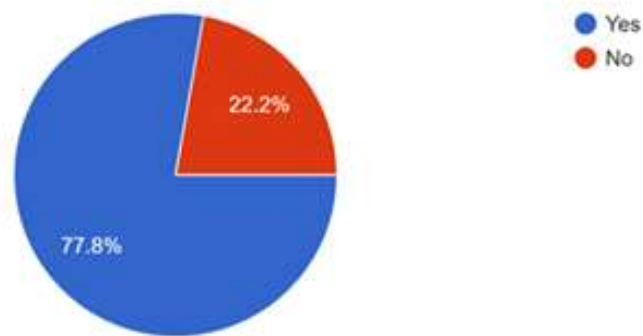
Figure 33: Children continuing with their studies

Respondents from most of the provinces indicated that children were continuing with their studies. The highest percentage of parents who indicated that their child/children were not studying during the lockdown were from the North West, followed by those from the Eastern Cape. Upon further investigation it was discovered that 29% of those from North West and 55% of those from the Eastern Cape indicated that their children had taken their textbooks home before the lockdown.
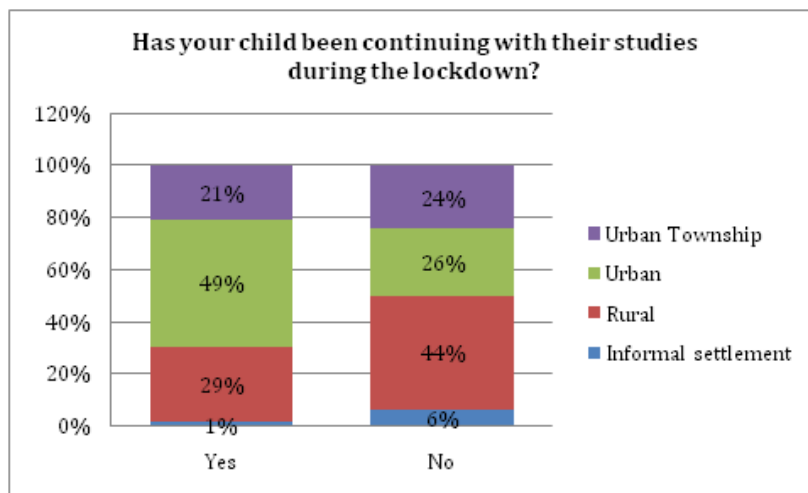
Figure 34: Children continuing with their studies by type of area

Child/children continuing studies per province
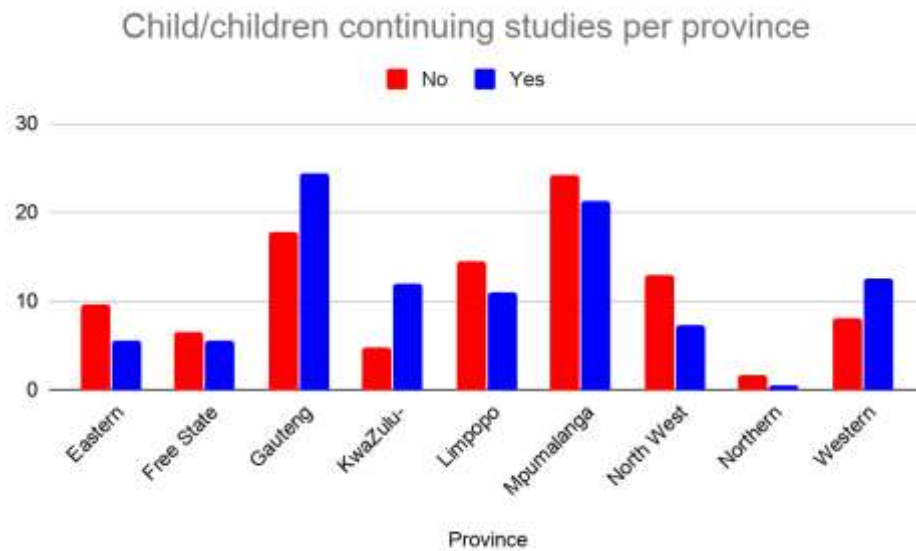
Figure 35: Children continuing with their studies by province

Children taking workbooks or textbooks home

More than half of the respondents who took part in the study (67.4%) indicated that their child/children were able to take their workbooks or textbooks home, indicating that these children had access to an offline source of study material.

Child/Children took home workbooks per province
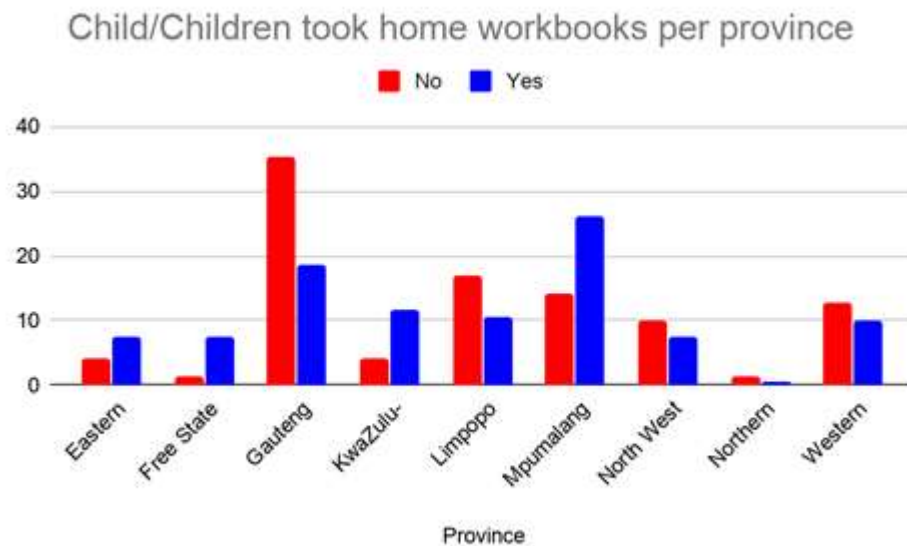
Figure 36: Children took home workbooks per province

Most of those parents who indicated that their children were not continuing with their studies were from Gauteng. When focusing on Gauteng, of the respondents who indicated that their children had not

been able to take their workbooks home, 57% also indicated that their children were not watching any television or radio lessons.

Children using workbooks to learn

Most parents indicated that their children took their workbooks home. A few parents whose children did not, noted that they would find it useful if they could access their children's books somehow.

> *If we could have our children's books from school it would be perfect because we can now reach them ourselves. Right now she is reading story books for kids and learning through the tablet. We have the router. But my biggest concern is her syllabus, she is falling behind. If only they could allow us to go pick up their school books that would be perfect.*

> *I feel like the school should have given us their note book so we can assist them.*

> *I answered this survey on behalf of my tenants whose children are in my yard. In my own case my child who is in grade 12 at an independent school has continued with schooling as if nothing is happening. She gets e-classes which shows me that e-learning is possible. The other kids on the other hand who go to public schools have nothing. Not even work books. It's quite sad.*

In other cases, children completed the workbooks and have had no further work.

> *The workbook was completed very fast. There was no provision made for extended lockdown.*
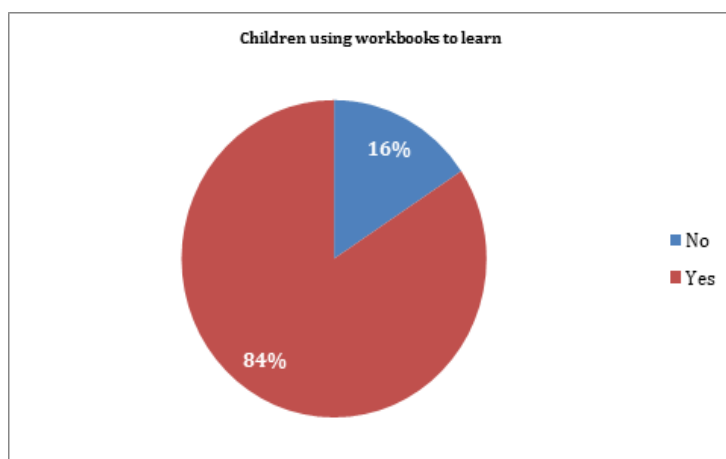
Figure 37: Children using workbooks to learn

What are children using for their studies at home?

When asked this question, 61% of the respondents indicated that their children use textbooks and workbooks, with online resources as the second highest response.

A small percentage of the respondents (2%) indicated that they have developed their own resources. Other parents (<2%) indicated that their children's teachers have continuously been sending them study material on WhatsApp.
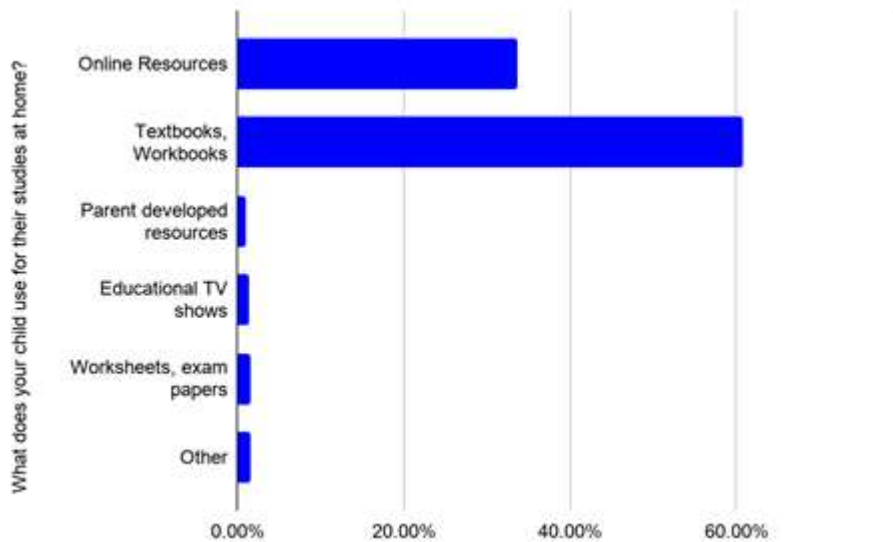
Figure 38: What children are using for their studies

The majority of those who had answered "no" to the question "Did your child take their books home before the lockdown?" indicated that they were making use of online resources (65%), while the majority of those who answered "yes" to that question, indicated "textbooks and workbooks" as the resource they were making use of.
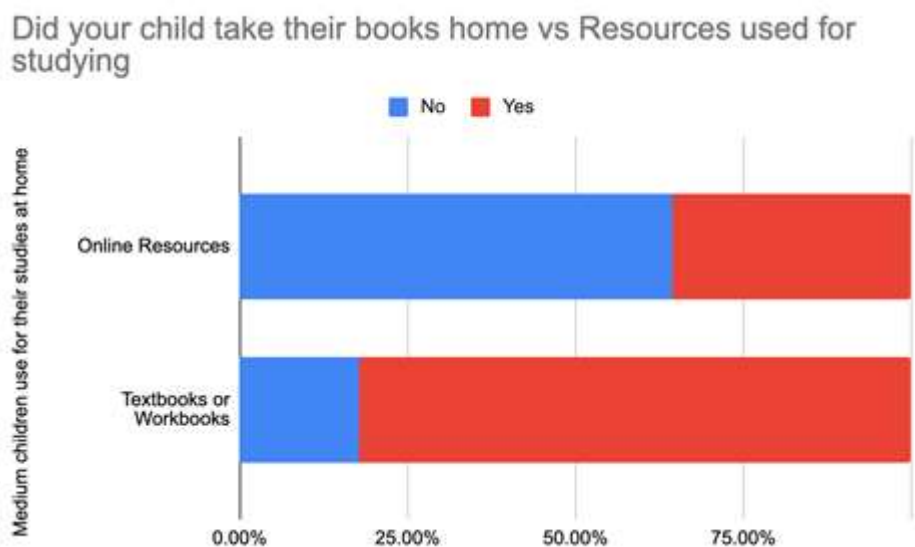
Figure 39: Medium children use for their studies

A number of parents noted the challenge of accessing resources, including online lessons, television and radio programmes, and internet access.

> *So far we are doing fine, just that data is drowning us.*

> *My main problem is the data, I spend a lot to get some of the things my children need to do with my phone, any help please about that.*

> *Wi-Fi at home is limited.*

> *I am suffering to get data and to buy computer for my child, as … our area is very poor. We can be glad to have tablets, computer and data to support online teaching and learning.*

> *Since the start of lockdown we as parents are sometimes unable to help our child to study online because data are more expensive and we won't afford and some of the work needs to be researched on internet.*

Do children have a personal study timetable that they follow on a regular basis?

The responses to this question were nearly evenly split. The absence of a personal study/learning timetable does not necessarily indicate a lack of learning. A different study approach other than one based on a regular, personal timetable may have been followed.
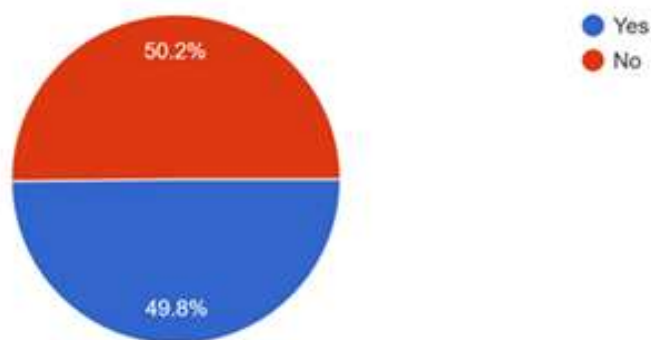
Figure 40: Children's personal study timetable

How often is your child learning every day?

Of the respondents whose children are continuing with their learning, the majority do so at the request of their parent/guardian (53%). This indicates a role switch has had to take place from teachers to parents. Parents cannot be expected to successfully execute this new role without communicating with their children's teachers.
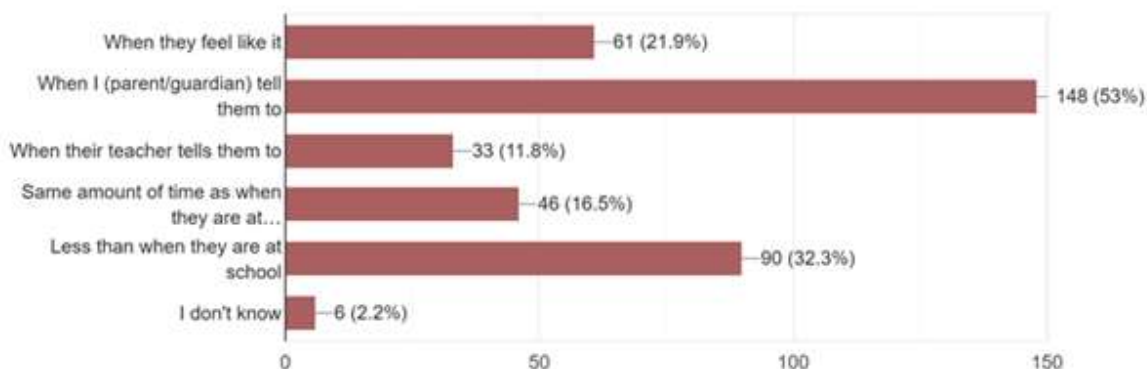
Figure 41: How often children are learning

Parental awareness of the TV and radio lessons

Only 26.2% of the parents indicated that they were not aware of any television or radio lessons. Figure 42 illustrates the number of parents who were aware of these lessons broken down by the province and areas the respondents live in. In all provinces besides Northern Cape, a large percentage of parents were aware of the TV and radio lessons. This is also the case with respect to the areas in which respondents live, although in the case of those living in informal settlements, the difference is not very large.
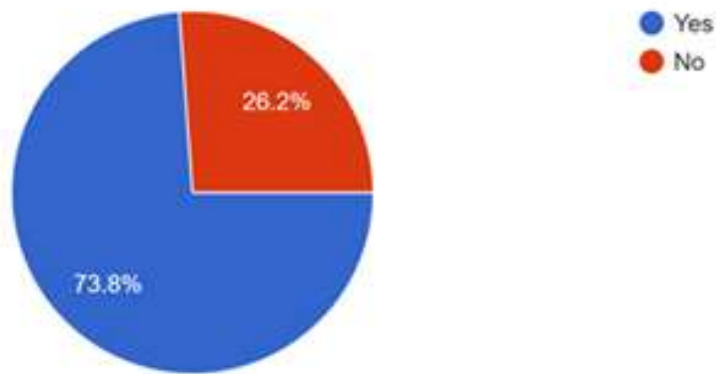
Figure 42: Parental awareness of TV and radio lessons

By province	By area
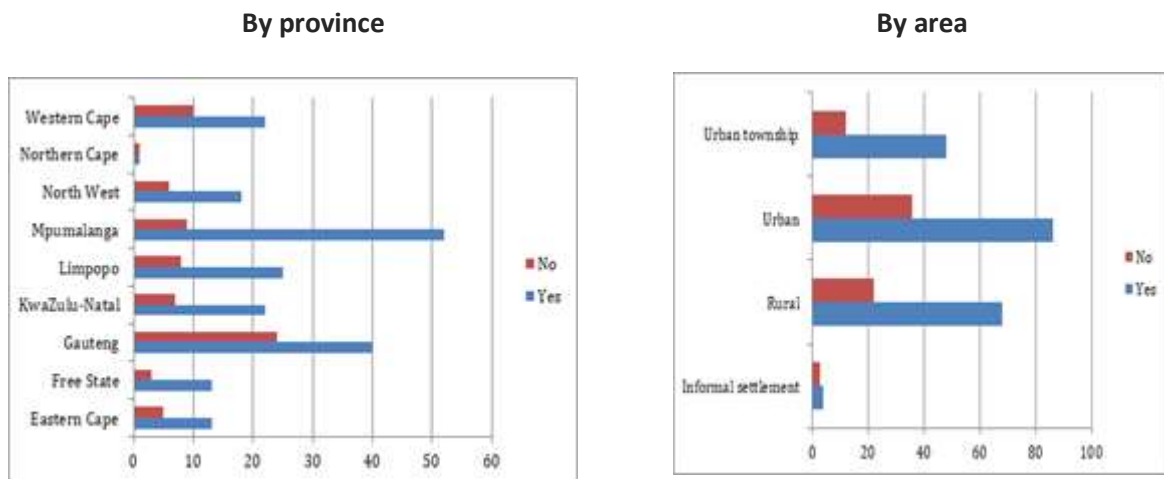
Figure 43: Parental awareness of TV and radio lessons

Children's engagement with TV and radio lessons

A great number of learners (47%) are watching or listening to the TV and radio lessons as often as they can.
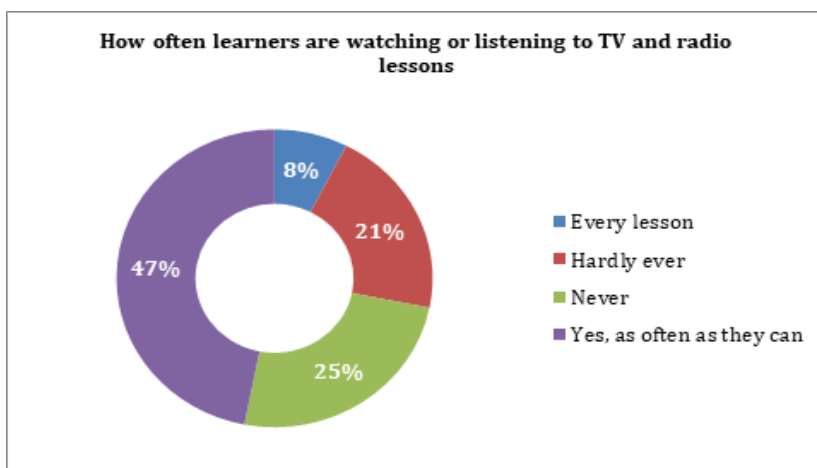
Figure 44: How often learners are watching or listening to TV and radio lessons

However, even in cases where resources such as TV and radio lessons are available and the learners have access to them, there is still the challenge of the resources not covering all grades. Two parents claimed that they were not able to access lessons for a specific grade even though they had access to the TV lessons:

> *I can't locate grade7 lessons from Channel 317.*

> *Can they show all subjects on 317?*

Additionally, some parents made the observation that learners find listening boring. One parent claims:

> *Kids do feel bored by listening.*

This speaks to children needing classroom engagement. Even though they have access to online resources such as TV and radio lessons, learners are not engaged and feel bored.

One parent also noted differentiated teaching and the potential for dishonesty as one of the disadvantages of online education.

> *Online learning is not applicable to all students – some learn better in a real life classroom scenario. Some follow up work and remedial lessons for weaker students is not practical via online methods. Assignments and projects are negatively impacted. So too are other assessments that need to be done as per DoE criteria. The potential for dishonesty with regard to online school work and tests is a greater threat to overall true values. Parents /guardians / siblings can do the work and post as students work due to various factors e.g. Both parents work, time limitations, fatigue, inadequate resources, discipline, crowded households, too many kids to tend to, easy way out, etc. Online testing will also be a challenging aspect. There are many advantages to choosing online schooling. The balance between the in school and online options will need to be managed carefully to obtain appropriate desired standards and positive potential calibre of graduates / professionals / labour force / intellectuals / etc.*

Have parents been assisting children with their school work during this lockdown period?

A large proportion of respondents (83,5%) responded positively to this question. Looking at the work situation of such respondents, it is evident that parents working from home (44%) as well as those who are not working from home but are still home due to the lockdown (30%) are best equipped to assist their children with school work. This is not entirely conclusive as there are a number of parents who met the above conditions but failed to assist their children with their school work. This suggests that there may be other factors at play (such as the content of the homework and the parent's ability to assist).
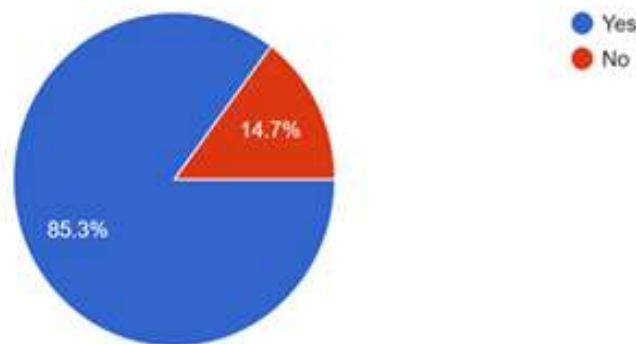
Figure 45: Parents assisting learners

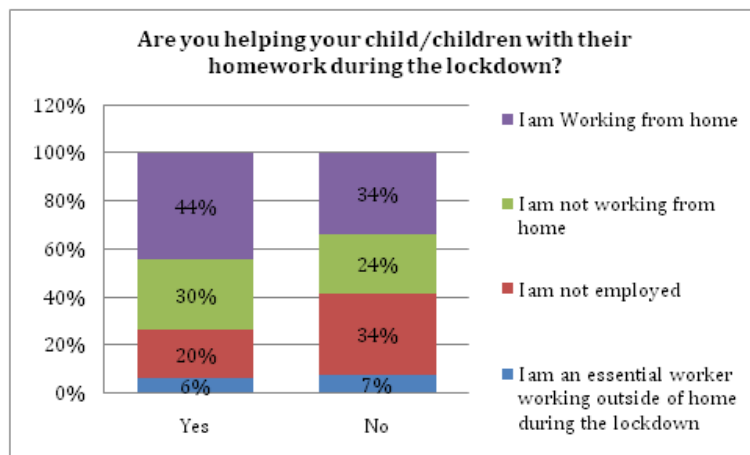**Figure 46: Parents assisting learners by employment status**

Parents identified a number of challenges, including their employment commitments, lack of support, too much work given to learners, and a lack of structure and routine at home.

Quite a number of parents in the survey identified their employment commitments as a challenge when it comes to assisting their children with school work:

I'm an essential worker, I'm struggling to come back from work and assist my kids with school work. It's too much for me. This means I have my work which is 8am to 5pm plus educators' work. I'm finding it very difficult to assist my kids with learning.

It's been very difficult to juggle home schooling 3 kids and still continue working from home. With all the resources that I have my work suffered. I ended up working late when they're sleeping. I'm exhausted but I have to do both especially the Grade R and Grade 5, they are not independent enough to do the work alone so that means I must be there to teach. And then because our helpers are also off juggling home schooling the kids, working from home with meetings throughout the day, housework like making the kids food, it has been the hardest experience.

It's not easy to focus on my work and help my children to learn while I must also give myself time to study.

I think the workload is too much for me as a parent because I am working from home. I have my own deadlines, attending meetings it becomes difficult to spend as much time as is required providing assistance. The work provided is equivalent to what the child has to do when they are at school and this is impractical at home. As a parent I am also going through the anxiety of the current situation, there is a lot of uncertainty and having to focus on work, house chores and then school work is a bit overwhelming and the child also is not motivated to do the work especially when they themselves are struggling to come to terms with the fact that they can't leave the house to be with their friends or teacher.

It is very hard to keep a learning structure when both parents are working from home and there is no guide on how to structure and learning.

Teachers are unable to understand that we as parents have no time to do our own work. My oldest is in matric and youngest is in grade 2 and I finish work with my youngest at about 1 so it's hard to get things done.

Lack of support:

It's not easy to teach kids of different grades at home when you also a primary care giver.

Too much work:

I really appreciate the WhatsApp groups created by teachers, however they are bombarding kids with a lot of work, they only send work to be done they don't present lessons. In my view that's overwhelming for the learners and parents as the lockdown has its own effects.

They must not send too much work at once.

Lack of structure and routine at home:

It is very hard to keep a learning structure when both parents are working from and there is no guide on how to structure and learning.

It's difficult and frustrating for me as a parent because one of my children (Grade 12 one) doesn't want to open his books and there is totally nothing I can do at all.

Studying at home is so difficult to my kids as they are not used to that environment.

Everyone's situation and circumstances are different. As a single parent who goes to work during the lockdown, my kids have become somewhat lazy and inconsistent as there is nobody to encourage, convince and assist them with the day to day requirements to enable them to do their school work.

Parent–teacher engagement

Have teachers been in contact with parents since lockdown started?

A little more than half of respondents (54.5%) have remained in contact with their child's/children's teacher during the lockdown, while 45.5% have not.
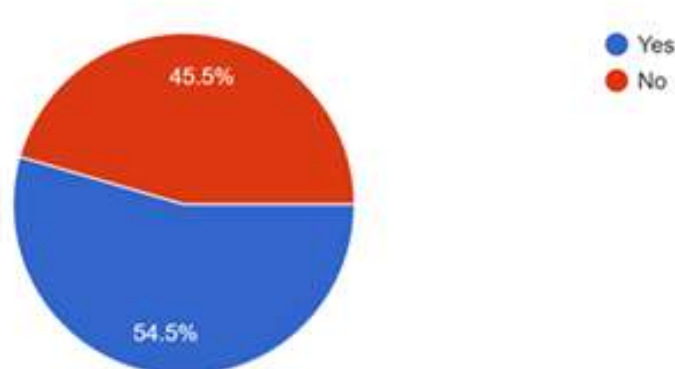
Figure 47: Teacher contact

Looking at the school category of respondents' children's schools provided further insight into the question of contact. Non-fee charging schools represented the majority of cases where there had been no continued contact with teachers (46%). This group also represented the minority of cases where communication had continued (11%). This suggests the need for an incentive system within non-fee paying schools to promote parent–teacher communication, and government should look into this.
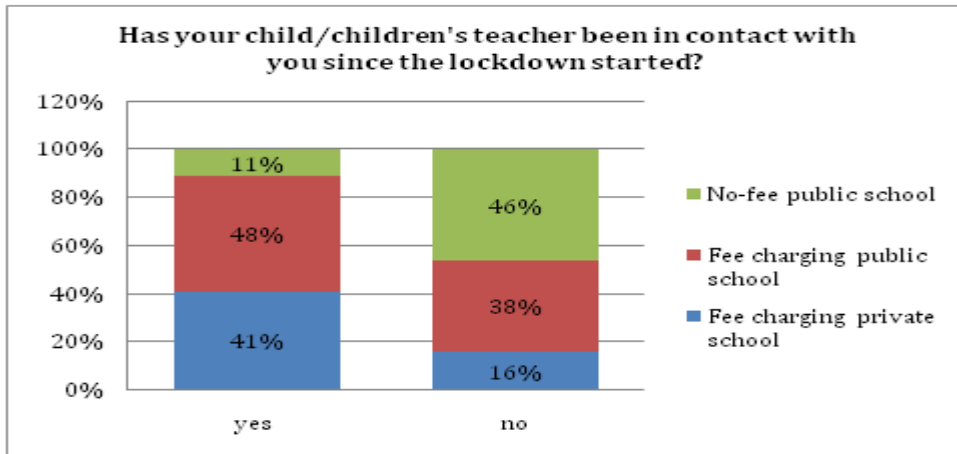
Figure 48: Teacher contact by school type

How often are teachers communicating with parents?

Almost half of the respondents indicated that teachers are communicating with them often, while another 28% indicated that even though teachers have contacted them, there has been very little communication (hardly ever).
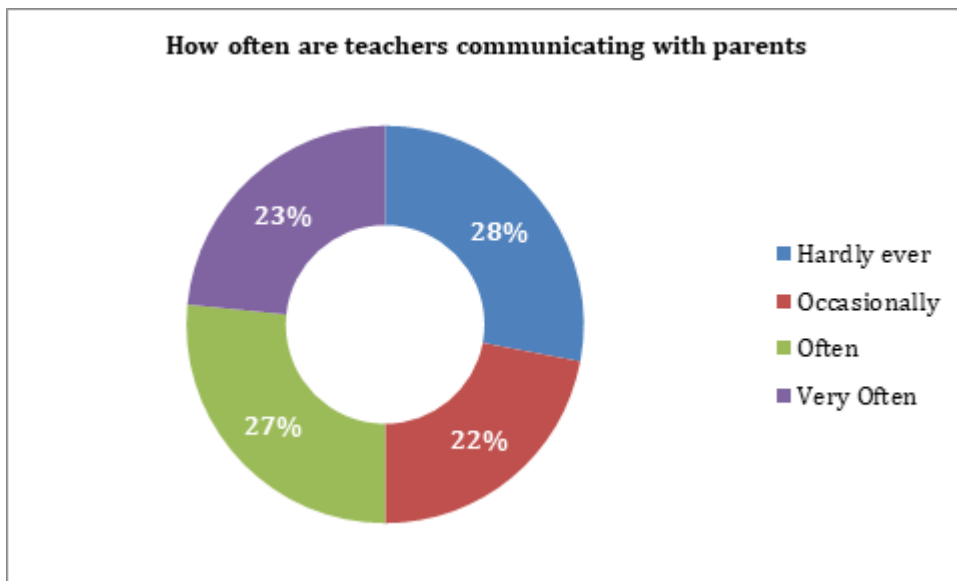
Figure 49: Frequency of teacher communication

Parents who said that they have been in contact with children's teachers indicated the most used medium as WhatsApp (39%) and emails (8.6%). The prevalence of WhatsApp as a medium of communication shows how successful it has proved in this regard – and there is a strong case for its mass adoption across schools.
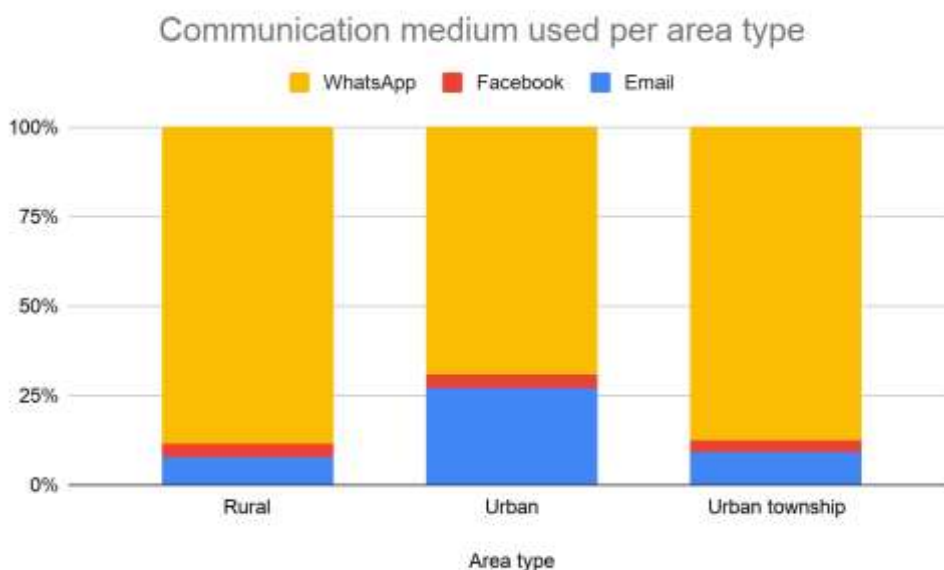
Figure 50: Communication medium used by area type

WhatsApp is a relatively easy medium to set-up for parent–teacher communication, and the required data costs to teachers – particularly in no-fee paying schools – is something the government can consider. There is no doubt that communication is key to continued learning, and hence this is an area that should be given more attention.

Email communication was the least used amongst all groups, but this was especially true for those from rural areas and urban townships. WhatsApp, on the other hand, was the most popular medium used for communication between the teacher and parent.

5.3.3   Access to resources

As discussed previously, more than half of the respondents who took part in the study (67.4%) said that their children were able to take their workbooks or textbooks home, indicating access to an offline source of study material. Respondents were asked the following questions to establish what other sources they had available.

1.   In your home do you have access to the following?

In response, more than 50% of the respondents indicated that they had access to radio, television, computer and a smartphone. In addition, 64% indicated that they had access to data or Wi-Fi for internet connectivity, while 34% said they had a tablet.
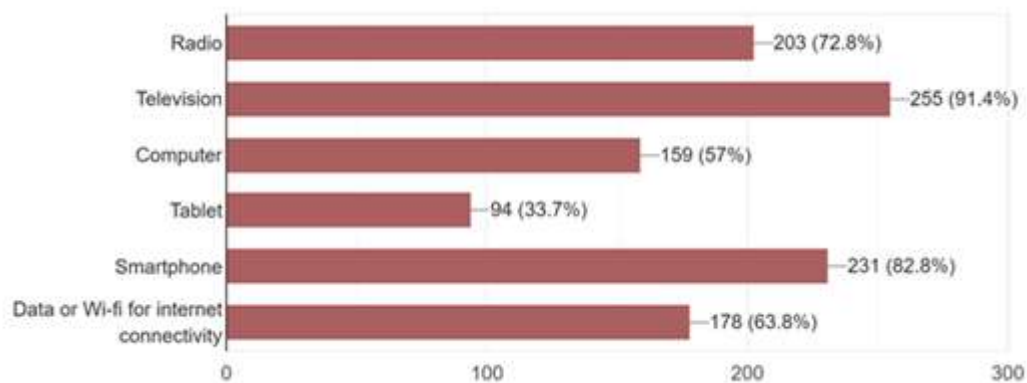
Figure 51: Access to resources

2.   Does your child have their own computer, tablet or smartphone?

In response, 52.3% of parents said their children did not have their own computer, tablet or smartphone. This result may be influenced by the high number of parents (more than 50%) who indicated their children's grade to be from Grade R to Grade 3.
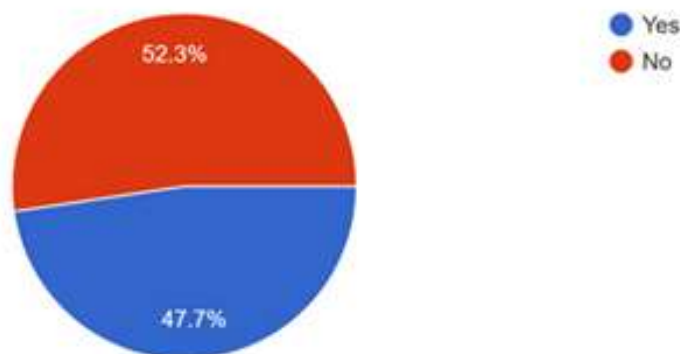
Figure 52: Children's access to resources

5.3.4   Type of support

What type of support do parents require to be able to effectively assist their children with their schoolwork?

Most parents (71%) indicated that they require support with teaching and learning resources. A large number also indicated that they need support with teaching guides, internet access, technology, flexible working hours and follow up from educators to check on their child's progress.
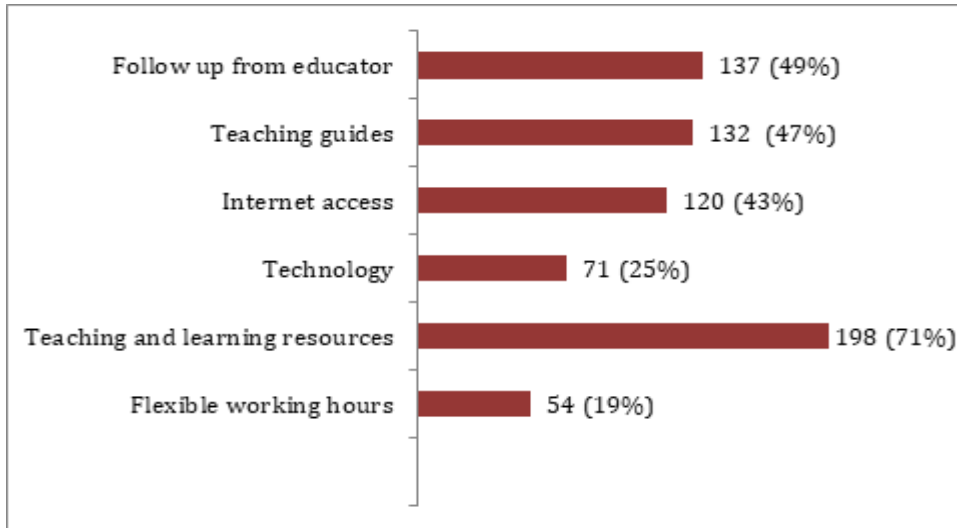
Figure 53: Type of support

Access to online and offline resources:

> The government was supposed to give free lessons that did not want data.

> The department must at least use the money it was supposed to be using this lockdown to buy at least Tablets for all learners.

> Department of education must assist with tablets and extra lessons after lockdown and in schools they must let students to use their smartphones learn and with free Wi-Fi in schools.

> I can be happy if all the learners can be provided with tablets with school projects, so that the teachers can send them school activities to complete and send to teachers.

> If we could have our children's books from school it would be perfect because we can now reach them ourselves. Right now she is reading story books for kids and learning through the tablet. We have the router. But my biggest concern is her syllabus, she is falling behind. If only they could allow us to go pick up their school books that would be perfect.

> I feel like the school should have given as their note book so we can assist them.

> Yes, I wish they can be given a day for us as parents to collect workbooks for the term to assist as much as we can.

> Wi-Fi is needed.

Content and curriculum:

> Yes to have more lessons on TV.

Can they show all subjects on 317?

I wish our public schools can send us homework.

Informing the syllabus for the terms of the year will be helpful.

Most importantly for my grade 9 son, a teaching guide would make me feel more equipped to help. Whereas now I am sort of thumb sucking on my own.

Online teaching lessons would be more helpful, class setting teaching where everyone can log on together at one time with the teacher teaching like Worksheet Cloud but school specific and interactive, perhaps where students can comment and ask questions. It's taking too much of my time sitting actually teaching and explaining.

Government should provide study guide to each child for free.

Reassurance and guidance:

Free resources online are best to help but without interactive programs and a progress tracking system it's hard to use. Especially because we don't have a printer and have to hand write everything, it's time consuming.

As a parent I have concerns about whether any of the work that my child is doing will be checked and responded to by teachers? This is a real concern as my child will be really disappointed if there is limited or no feedback from her teachers. The reason I have this fear is that the teachers will probably engage in other contingency planning. Unless going through the work/ revision is made part of the immediate tasks to be done.

Equally teachers should have made means to communicate with children so they can go or do their school work during this difficult time.

Effective communication between teachers and parents is required in order for parents to assess what children are doing.

Parents need guidance through the curriculum.

I think educators should take Saturday classes to try and help the learners, especially the kids who do not have smart phones, they are far behind with their school work.

I would like to communicate with her teachers on the terms topics.

Most of the exercises given by teachers to my child were revision on work completed. This needs to be checked especially for learners who need to consolidate their learning.

5.3.5 Uncertainty and anxiety

Parents also expressed uncertainty and anxiety regarding a number of things not necessarily linked to teaching and learning, including anxiety about the current Covid-19 pandemic; financial difficulty; and health and safety concerns.

General anxiety

Parents expressed concern regarding the Covid-19 pandemic and the uncertainty that it brings:

> *I think the workload is too much for me as a parent because I am working from home. I have my own deadlines, attending meetings it becomes difficult to spend as much time as is required providing assistance. The work provided is equivalent to what the child has to do when they are at school and this is impractical at home. As a parent I am also going through the anxiety of the current situation, there is a lot of uncertainty and having to focus on work, house chores and then school work is a bit overwhelming and the child also is not motivated to do the work especially when they themselves are struggling to come to terms with the fact that they can't leave the house to be with their friends or teacher.*

> *I would like to keep receiving support from school if I decide not to let my children back to school for remainder of year.*

> *The matric students are very stressed about the uncertainty regarding this year in terms of the lockdown and the danger of going back to school. The government should either cancel this year and give the children assessed marks, or they should cancel the year and repeat it next year. It is not a good idea to send them back to school at this point, as there are many children and families who have underlying health conditions and are therefore high-risk.*

Financial difficulty

Parents also expressed concern about not being able to provide financially for their children as a result of the limitations imposed by the lockdown:

> *I have problem because am stressed about what they are going to eat every day cause no one is working In our house. I close the small business that I was doing for baking the fat cake and fish is one that we are survive from it.*

> *We are living under stress of where our next meal will come from.*

Health and safety

Parents also expressed concerns regarding the health and safety of learners:

> *As an SGB member I have major concerns as to the implementation and the lack of preparation and communication regarding the following aspects, hygiene in schools, the staff e.g. more*

teachers and cleaners, sanitizers, water, social distancing amongst children during school and their activities and when they are playing, the type of masks and the wearing of masks the entire day, the control of public transportation from school to home and vice versa how do we control the behaviour in the transport, last but not least how prepared are we to handle children with pre-existing conditions as they are more prone to infections.

5.3.6   Successes

Parents also identified a number of successes, including the important role being played by the DBE and online education.

The DBE is recognised for the important work being done:

This is not an easy time in our lives but would like to thank the government for trying this hard while people keep violating lockdown rules. How I wish people understand no one brought this so we need to work together to succeed. Dept of Education is doing the best to keep learning happening ,parents to follow suite.

Parents also note the important role online education is playing during this lockdown. In cases where the online learning systems were already up and running, it appears that online learning is working especially well during this period.

The school has been really on top of their game. We use Google classroom where we sort of clock in for class and do activities. It was easy to adjust because even on school days they would be required to share some activities and project online.

In my own case my child who is in grade 12 at an independent school has continued with schooling as if nothing is happening. She gets e-classes which shows me that e-learning is possible.

The lessons on 317 are helpful and easy to follow. I think if children can regularly watch the relevant lessons they'll benefit a lot.

I think the teachers and the kids have been great. We have had structured work and assignments from the high school and structured recommended learning from the pre-school. I think in this time its unchartered territory but given what we were I think we have all been handling pretty well.

5.3.7   Conclusion

In conclusion, the parent survey indicates most children in all provinces are continuing with their studies during this lockdown period, with most parents assisting them. More than half of learners took their workbooks or textbooks home, indicating access to an offline source of study material. Moreover, e-learning is being used by parents, with the assistance of teachers, to continue covering the curriculum at home. The data also illustrates that most learners are studying when their parents tell them to; however this could be due to the large number of parents who indicated that their children are in the Foundation

Phase. Over 70% of parents indicated that they have access to TV, radio and smartphones while fewer parents indicated having access to computers, data and Wi-Fi connectivity. In addition, less than half of the learners do not have access to their own computer, tablet or smartphone, which could present a challenge when it comes to online learning.

Parents have identified a few obstacles regarding teaching and learning at home, including not being well equipped to maintain teaching and learning routines. More advantaged households appear to be coping as there is access to the required resources, such as a stable internet connection and study materials for learners to work with. Poorer households often have to prioritise providing food over the child's education, as a hungry child cannot study well.

The intersection of socio-economics cannot be ignored when the question of independent, at-home learning is raised. This problem has been illuminated by the data, which reflects some of the socio-economic constraints experienced by parents during the lockdown. Before trying to cover the curriculum remotely, the government needs to prioritise providing access for all, especially for those who are already at a greater disadvantage. Failure to do so will increase the already significant divide between more and less advantaged learners.

6. Lessons learnt

Here, the Theme 5 researchers share the lessons they have learnt from conducting this research project.

> *Firstly, I was unaware that there were so many resources for learners of different phases already, although I was a bit disappointed that almost all of them are only available online. This will make it difficult for less privileged learners and parents to access available educational resources. Secondly, I have been improving my time management and multi-tasking skills having to work on various tasks. I have also been able to capture data on an online document particularly manoeuvring through Excel, which I had not done before. Overall, it's been a good experience.*

> *More than anything, I've learnt of the dire need for greater access to digital technologies and skills across South Africa's population. The world is moving along at a frighteningly fast pace, and we stand the real risk of being left behind if we do not work to close the gap. The lockdown and the limitations placed on education has really served to highlight South Africa's shortcoming in this critical area. Now is the time to begin working towards implementing viable solutions to ensure that all our learners have access to these critical digital skills and technologies so that they may align with where the rest of the globe is going.*

> *This has been a really interesting, and eye-opening experience for me as it shone a light on the realities faced by many South Africans. I am currently doing my final year in a Master's degree, so I am not currently in South Africa. This experience gave me the opportunity to look at life from*

my two realities: as a student staying in Europe, and as a South African trying to make a difference for people in my country.

This is with no disregard to all the institutional challenges experienced here, but it was quite interesting to see the pace at which things progressed here in Europe after the outbreak of COVID-19.

One day we were told that we could no longer go to school, and a week after that we were given an outline on the process in which teaching would be conducted online. As students, all we had to do was familiarise ourselves with the already existing online platforms.

This was not possible back home in South Africa, in fact, putting such measures into place would only have brought even more inequality. The reality is that some learners cannot afford internet services, in fact, some South Africans cannot be bothered by having a mobile device when they can barely afford food.

This experience made me appreciate my position more, and appreciate that I could be part of a cause that will impact others' lives.

The main thing that I have learned so far is the Department of Basic Education has a lot of gaps to fill. These gaps can be closed by a large scale project that will place a learning device in the hand of every child. There also need to be plans that equip students, parents and teachers we the required tools to adapt to the new form of learning. On the other hand this period maybe used to transition the education systems that is more 'beefed up' and closely aligned with our international counterparts.

I have found that there is a significant amount of online learning resources available for senior phase learners, however, not all learners will have access to these resources and this may have dire consequences for these learners, their schools and caregivers. The information obtained by myself and my fellow researchers will be used by the DBE in maintaining a database of learning resources available outside of the DBE, which will ultimately be used to supplement regular teaching material; not only during the lockdown, but in any potential circumstance when regular schooling cannot continue.

I have learnt that the issues of poverty and inequality in South Africa have far more widespread negative consequences in the delivery of governments aid. As something such as providing free educational resources should not be difficult to provide if they are available. Which they are, government resources, resources provided by private firms through CSI and resources provided by NGOs.

Such socioeconomic issues make an issue like the delivery of educational resources far more difficult. If the general level of social welfare was higher than it currently is, access to online resources would not be as big and the slack would be easier to handle by government and NGOs.

It is unfortunate that social assistance efforts have an additional hurdle to get over because of this.

7. Recommendations

1. It is evident that there is a lack of offline resources available to assist teachers and learners during this lockdown period. The Department of Basic Education (DBE) must provide offline resources that can be accessed by the majority of learners, and find ways to distribute these in a safe manner at this time.

2. The DBE needs to ensure that they include interventions for learners with disabilities and special needs in their planning.

3. WhatsApp is being used as one of the main methods of communication during this period. The DBE should consider a more structured way of effectively using WhatsApp for teaching and learning purposes.

4. The DBE must engage with parents and caregivers to communicate the type of support required to effectively support learners.

5. There are concerns about learners returning to schools. The DBE should make clear what health and safety measures have been put in place, and what psycho-social support will be provided to teachers and learners.

6. While some learners have been able to continue with their learning routines at home, many others have not. Accordingly, the DBE must ensure that their curriculum-recovery strategy makes provision for all learners.

Annexures

Annexure A: Theme 5 research team

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Annexure B: List of Grade R – Grade 12 Resources

Name of organisation providing resource	Description of resource	Who can use resource?
Africa Teen Geeks	Science, technology, engineering and mathematics (STEM) Lockdown Digital School - Free online classes for learners via YouTube or Facebook.	Learners
Learning Lab Apps	Worksheet Cloud Live Lessons - Free online video school lessons for South African pupils in Grades 3-7 (other grades to be added)	Learners
Learning Lab Apps	Online browser application for practicing basic mathematic functions (addition, subtraction, multiplication, division)	Learners, teachers, caregivers
Dreyer Lotter	SATeacher - Online webstore for learning and teaching resources; while the SATeacher android app can be used by learners, teachers and cargivers.	Learners, teachers, caregivers
Think Brain Wave	Think Brain Wave - Virtual platform for free pre-recorded videos.	Learners
Ten Fold Education	Mobile based learning app for senior phase (Grade 10-12). Sections are taught by tutors via uploaded videos or animated videos. Students can then submit answers to questions on the app and get immediate feedback.	Learners, teachers, caregivers
Mindset Learn	Online video-based learning resource for senior phase (Grade 10-12). Short videos for a wide range of subjects are uploaded for viewing.	Learners and teachers
Siyavula Education	Open education resource (OER) for Grades 8-12 Maths and Science learners. Questions are presented in their categories and learners can submit an answer to be immediately checked. Practice and exam prep is also offered.	Learners and teachers
Vodacom e-school	The Vodacom learning platform with Internet access to education content for all grades for high school South African learners	Leaners
Department of Basic Education (National Senior Certificate Examination)	Past NSC Examination papers help students to know what they already know and what they are yet to know	Learners
Mindset	A South African not-for-profit company that creates, sources and distributes high quality, curriculum aligned digital content to support the education and health sectors	Learners and teachers
Maths Excellence	The Maths Excellence website is established by a network of concerned and dedicated mathematics educators. Their objective is to improve the standard of maths education and make maths more accessible to all South African learners. The website is dedicated for educators to debate issues that affect them and their learners; to exchange ideas and resources as well as to become an effective pressure group for change	Teachers
2Enable	This website provides access to a variety of educational content for free. This is most useful to Schools that wish to create a professional web presence and who are serious about e-learning and who wish to offer their students access to an entire 'School in the Cloud'.	Learners and teachers
Sci-Bono	Sci-Bono provides Mathematics, Science, Technology and computer training for all teachers Grade R - 12	Learners and teachers
Teacher! Resources	Teacha! is an online marketplace for teachers in South Africa to	Teachers

Name of organisation providing resource	Description of resource	Who can use resource?
	buy and sell digital teaching resources for their South African classroom.	
Thunderbolt kids project	To attempt to improve the STEM subjects in South Africa, Thunderbolt focuses on teaching Natural Sciences and Technology to lower grades (4-6) and provide resources for every child in a government school	Teachers and learners
National Curriculum Statements (Department of Basic Education)	The National Curriculum Statement Grades R-12 gives expression to the knowledge, skills and values worth learning in South African schools. This curriculum aims to ensure that children acquire and apply knowledge and skills in ways that are meaningful to their own lives. In this regard, the curriculum promotes knowledge in local contexts, while being sensitive to global imperatives.	Learners and teachers
Maths Online	A tutoring service providing support, advice and tutorials in Maths and any academic discipline where Maths can be applied. Interactive learning online, learners can work at their own pace, watch the video tutorials as many times as they need to until they get it	Learners
Sesotho.web	The aim of this page is to provide, in addition to the other pages of this site, classroom resources in Sesotho (Southern Sotho). This language is studied as Home Language, First and Second Additional Language at schools throughout South Africa.	Learners, teachers, caregivers
WideOpenSchool	Wide Open School is a free collection of the best online learning experiences for kids curated by the editors at Common Sense. There is so much good happening, and we are here to gather great stuff and organize it so teachers and families can easily find it and plan each day.	Teachers and caregivers
Extramarks	The Learning App by Extramarks is empowering learners through rich, animated lessons which make learning exciting and engaging. Our app gives complete curriculum coverage of Math, Science and English subjects for grades 6 to 12 which allows you to lean anywhere, anytime.	Learners, teachers, caregivers
Twikl	Twinkl is a site that is based in the UK, which has a fantastic range of South African Teaching Resources that you can download and use in seconds. Designed by teachers for quality and accuracy, our South Africa Teaching Resources cover every learning stage from Foundation through to Intermediate.	Teachers
ClassDojo	ClassDojo is a school communication platform which teachers, students, and families use every day to build close-knit communities by sharing what's being learned in the classroom home through photos, videos, and messages.	Teachers and caregivers
Ekstep foundation	An open learning platform with a collection of learning resources in literacy & numeracy	Teachers and caregivers
RACHEL (Remote Area Community Hotspot For Education and Learning)	Rachel is a portable plug-and play server which store educational websites and makes that content available over any local (offline) wireless connection .	Learners, Teachers, communities
Open Omnia	Mathematics App	Learners
SABC and Department of Education	Public broadcaster to support the education programming during this the time of lockdown.	Learners
E-Classroom	Digital educational platform providing a range of educational resources and skills training. All resources are written by	Learners,Teachers, Parents

Name of organisation providing resource	Description of resource	Who can use resource?
	subject specialists.	
Via Afrika	Produce and package educational content and learning experience to be enjoyed in varius formats. Publishes a comprehensive range pd educational materials for schools and TVET Colleges in South Africa and Botswana.	Teachers
Department of Basic Education	Through the Thutong Portal, the South African Department of Basic Education aims to lead the drive to improve learning in the country through appropriate use of technology. The Thutong Portal is the online point of entry to a comprehensive array of free educational resources, policy information, and interactive services concerning all aspects of the South African Schooling Sector. It will provide relevant information and services about the South African school curriculum, teacher development, school administration, and management. Thutong aims to facilitate ease of use, enabling users to find and make use of its resources and services in the most intuitive ways possible. In order to help to develop and improve the quality of education in South Africa, the curriculum resources contained in the Thutong Portal will seek to describe the teaching and learning pathways and processes that learners should work through in order to achieve identified Learning Outcomes and/or Assessment Standards as set out in the South African National Curriculum Statements. Thutong's key focus is on creating strong and vibrant online communities of practice in order to facilitate discussion and sharing of information and ideas amongst peer networks, and in an effort to encourage South African educators to develop and improve education by sharing the country's common intellectual capital.	Learners,Teachers, Parents
Math Enrichment	With Covid-19 confining students around the world in their homes - we thought we would bring some sunshine into their lives. YES we will be offering FREE Living Maths sessions ONLINE. Time table is set out below. Teachers and students are welcome to join!	Learners,Teachers, Parents
E-Classroom	E-Classroom is driven by our belief in the power of social change and transforming lives for the better. E-Classroom was the first digital education platform to launch in South Africa (2011) providing a wide range of educational resources and skills training in response to a desperate need from teachers and parents for good quality educational resources. All our resources are written by subject specialists at the top of their chosen field. All learners have the right to quality education and our business ethos focuses on providing affordable resources to all schools, parents and learners from Grade R to post matric through the following channels:	Learners,Teachers, Parents

Name of organisation providing resource	Description of resource	Who can use resource?
	Our worksheet support platform: Lightens the load for teachers and parents by providing worksheet and lesson plan support. Content is developed for each Grade and learning area. We are always hard at work developing new modules or adding to existing material. This offering is developed for Grades R-12 for a minimum registration fee. Our knowledge-based assessment and exam papers: Assists learners during exam time. These practice papers are an invaluable revision and study resource and we will continue to grow this platform with additional subjects. Our Courses for learners (Grades 10-12): These engaging courses have been developed by subject specialists and provide all the information that a learner needs in which to revise the subjects and topics they feel need extra attention to bag that "A"!	
Worksheet Cloud	WorksheetCloud is a premium online app that lets your child practice and study for class tests and school exams. We've now launched WorksheetCloud Live Lessons – this free online classroom service. We're a dedicated team of teachers, designers, developers and educational strategists who have a passion for helping South African families through the stress that is often associated with tests and exams. Our mission is to encourage the development of happy families by empowering parents to assist children to reach their full learning potential and gain a feeling of success.	Learners,Teachers, Parents
Maths & Science	Maths & Science Marketing (MSM) is a company that has produced software to enable teachers, schools and learners to move into the 21st century – confident that they can meet the challenges with which they are faced. MSM has employed people who have run regional, Provincial, as well as National projects in Maths & Science over the past 30 years and therefore has developed the knowledge, skills and expertise to develop materials & methodology as well run effective, valuable projects throughout the country. Providing all schools and individual learners with FREE access to all 100 000 pages, links, video clips and simulations – downloadable to computers, tablets and smart phones, we believe that we are enabling everyone to excel in these crucial subjects! Research indicates that 85% of the population (including previously disadvantaged learners) will have access to smart phones over the next 1 – 3 years. They will thus be able to access whatever they require from our website – even if they do not have DAILY access to the methodology and materials in the classroom situation.	Learners,Teachers, Parents
National Research Foundation (NRF)	This project is sponsored by National Research Foundation (NRF) of South Africa.	Learners,Teachers, Parents

Name of organisation providing resource	Description of resource	Who can use resource?
	Quality mathematics education is a current priority in South Africa. As such, continued support initiatives for both teachers and school students is at the core of addressing the current mathematics crisis in South Africa. Even though resources are available to any teacher who accesses these via the Internet, teachers are often overwhelmed by the number of available resources. To this end we initiated and introduced a mathematics information delivery hub (MIDHub), which provides easy and quick access to relevant material and quality instructional resources for mathematics teachers.	
Department of Basic Education	DBE page containing links to apps which were determined CAPS aligned designed to help students practice	Learners,Teachers, Parents
Siyavula	Textbooks Free, Exam Prep Paid. Unlimited questions. Full solutions. Instant feedback. With Siyavula Practice, you CAN master Maths and Physical Sciences. Exam Prep helps you to apply what you've learnt to real life exam questions.	Learners,Teachers, Parents
Department of Basic Education	There is much focus on the later grades in high school where learners are grappling with science and maths concepts. But, many of the misconceptions and problems that are evident at this level, often have their roots in the primary school phase. To attempt to improve the STEM subjects in South Africa, we actually need to start at the beginning and secure a strong foundation on which learners can build their future Science and Technology careers. This is something that we at Siyavula and the Sasol Inzalo Foundation believe strongly in. Not only this, but both organizations recognize the power and potential of open educational resources to make a difference to education in South Africa. This set the stage for a strong partnership to produce resources for Natural Sciences and Technology for Grades 4-6 to be printed by the Department of Basic Education for every child in a government school in 2013.	Learners,Teachers, Parents
THINK Digital College	Think Digital College (TDC) is the first virtual school in South Africa providing both the South African and British International aligned curricula	Learners
Vodacom e-School	A free resource for students to learn, revise and be evaluated.	Learners
IXL Maths and English	IXL is an immersive learning experience that provides comprehensive, curriculum-aligned maths and English content for preschool to grade 12	Teachers and Learners
Teneo School at home	A portal where students can engage with real teachers in a live, interactive virtual classrooms from 7h45 to 14h00 during the school term. Teneo has four terms and follow the department of Basic Education's annual calendar	Learners
Virtual Schools	Virtual Schools specializes in the provision of cutting edge home schooling solutions for the South African market.	Learners
Paper Video	Paper Video is an online resource that covers high school Maths, Physics,Life Sciences, and Accounting. The online	Leaners, Teachers,and

Name of organisation providing resource	Description of resource	Who can use resource?
	platform provides a wide variety of downloadable resources at no charge.	Parents
*12-Story Library, an imprint of Bookstaves	12-Story Library has opened up access to our full library of ebooks, each of which are paired with a unique resource web page with content updates, live news feeds, videos, image galleries, and lesson plans.	Teachers, learners, caregivers
*123 Homeschool for ME	Free printable worksheets and educational activities to help making learning fun. Resources arranged by grade or subject	Teachers, caregivers
*2Simple	Purple Mash is a website designed for children aged 3-11. It contains many creative tools ie: coding, animation, publishing, art and also applications for maths, spelling and grammar. Teachers can 'set work' for children easily then view / comment on completed files. It also contains thousands of topic based activities. Serial Mash gives you a whole library of e-books and corresponding activities. Both can be used on any tablet or computer with a web browser.	Teachers, learners, caregivers
3DBear	Easy-to-use AR learning app and lesson plans provide you and your students with the opportunity to design and create in Augmented Reality.	Teachers, learners, caregivers
3P Learning	3P Learning is a global leader in online education and we truly love learning. Our suite of learning resources is designed for schools and families, covering mathematics, spelling and literacy. We're a global team of passionate education and technology gurus based right around the world.	Teachers, learners, caregivers
3rd Space Learning	Third Space Learning are specialists in teaching maths to young children, providing interventions and resources for 5 to 11 year olds (KS1 and KS2, 1st Grade to 6th Grade). Follow the link for hundreds of free maths resources for parents and guidance on supporting with maths at home.	Learners, caregivers
8X8	8x8 Video Meetings is free and web-based. It's available to anyone, globally, at no cost. It's a helpful tool in the event of school closures, event cancellations or for quickly implementing virtual learning environments. Visit https://8x8.vc/, name your meeting and click start. It's that easy. No need to share an email address or download software.	Learners
Academy4SC	Academy4SC is a video series on various psychology, rhetoric, logic, reasoning, and economic topics. Each video comes with an explanation of the topic as well as a lesson plan. New videos are added frequently	Learners
Accelerating Young Minds	AYM's multimodal learning activities provide an invaluable kickstart to your child's education. Help your child to unlock their full potential today!	Learners, teachers and caregivers
Acessibyte	Accessibyte Online is offering free access to its entire cloud platform of apps for blind, low vision, deaf and reading impaired students. Highly visual and fully audible typing tutor, games, flash cards and study apps.	Learners, teachers and caregivers
Achieve3000	Achieve3000 partners with educators to deliver a comprehensive suite of digital solutions that significantly accelerate literacy and deepen learning across the content areas. Our personalized and differentiated solutions provide equity in the classroom, enabling teachers to help all students achieve up to 3x expected growth. For more than four million	Learners, teachers and caregivers

Name of organisation providing resource	Description of resource	Who can use resource?
	students in grades PreK-12, Achieve3000 improves high-stakes test performance and drives college and career readiness.	
All Digital School	A website meant to help both teachers and parents deal with the education of kids remotely through providing guides for teachers and parents to show them what tools/resources they need to move their teaching online and putting together a directory of educational digital resources and tools for both teachers and parents.	Learners, teachers and caregivers
Africa Map puzzle	This App is a puzzle of Africa, where each piece is the shape of a country. Tap, drag and lock the pieces into place. Your progress is saved as you lock pieces.Grade 1-3 Discovery area: Matching activity. Grade 4-9 Settlements: Map Skills. Grade 10-12 Using Atlases	learners
Geography learning game	This is a Geography quiz game with; Political Map: locate on the map the capitals of all countries in the world. Additionally you can learn flag of each country. Physical Map: locate on the map landmarks: rivers, mountains, mountain ranges, lakes, seas, islands, peninsulas, capes, gulfs, straits, canals, plains, depressions, deserts.Political Map for allocation of political features e.g. countries & flags. Physical Map for all landmarks e.g. rivers, mountains, gulfs, etc.	Learners
Google earth	Application that is used across subjects to explore the globe, direction, spaceThe content covered is aligned to CAPS and includes language of position, position of views and direction and measurement.	learners
WB Climate	This is a game App developed to make climate change information from the World Bank available. It creates awareness about the climate change. It is geared toward all people. It is an interactive, fun game that shows pertinent facts about climate change in the different countries around the world. It also shows how being proactive and doing 'small' things like recycling or reducing toxic waste can help the world be healthier and cleaner.	learners
English Tracker	The application creates awareness about the climate change. It promotes recycling or reduction of toxic waste for sustainable healthy environment.	learners
Practice English Grammar	The app's aim is to improve the user's English grammar through the use of nouns, adjectives, adverbs, conjunction, reported speech, interrogative words, verbs and tenses exercises.	learners
Math Doodle	The app is designed to look like a child scribbling on paper. This game is multi-layered in terms of what it offers. When the game is opened, it offers 5 choices: 1 - to go directly into the game and play; 2- to select the mode of the game which in this case is the 4 Mathematics operations, times tables and a mixture of all of the above; 3 - a sticker chart where reward stickers are automatically pasted when a certain number of correct answers are given (the player can move the sticker with a finger to paste it where desired on a 40-block grid); 4- player settings, where a new player can be logged, the number of questions can be set, the difficulty level can be selected, the game mode can be changed, and the background can be changed (4 different types of paper); and 5 - credits.	learners

| Name of organisation providing resource	Description of resource	Who can use resource?
Math Duel: 2 player Math game	The four number operations are exercised on easy, medium, hard and expert levels. The screen is divided into two so that two players can compete simultaneously. This app applies the four operations to numbers less than 100, and also uses the properties of 1 and 0 in addition and multiplication.	learners
Foundation Phase academic resources	Free online resource that covers the curriculum of foundation phase and all subects	Learners
OxfordOwl: Help your child learn	An online resource for children below age 11. Kids activities, reading and numeracy	Learners
LEGO foundation: Learning through play	Learning through play	Learners
Nal'ibali	the simple logic that a well-established culture of reading can be a real game-changer for education	Learners, teachers, reading club leaders and memeber of the communities
Pearson		
Teaching resources: ecurriculum	to provide leadership and direction for efficient curriculum management and effective curriculum implementation through	Teachers and Learners
Wabisabi Learning	A free solution for teaching, learning and assessment in any traditional, virtual, remote, and blended school.	Teachers, Parents/guardian and learners
Children's comissioner for Wales (we need something similliar to this, that is CAPS aligned)	free pre-recorded videos, lesson plans, creativity and notes	learners
Curious Learning	Free Open Source Learning Apps for Kids	Teachers, Parents/guardian and learners

Annexure C: List of ECD Resources

| Name of Resource	Subject	Topic	Method	Example	Senses Used
CD/DVD	Literacy	Phonetics	Teach phonetic sound of the alphabet	Voice lesson, or songs providing phonetic pronunciation	Hear
Videos	Literacy	Phonetics	Teach phonetic sounds of the alphabet.	Voice lesson, or songs providing phonetic pronunciation	Hear, See
Worksheets	Literacy	Phonetics	Trace alphabet and words	Trace the letter 'A'	See, Touch
Story Books	Literacy	Reading	Online: Play storybook for child. Offline: Read story for child.	Reading Red Riding Hood story.	See, Hear
Parents guide to literacy	Literacy	Parent's guide	A support resource that lists the different skills a child should possess at different stages.	Child should be able to listen carefully to books read aloud by the end of kindergarden	N/A
Games	Numeracy	Counting	The usage of games to teach toddler how to count.	Parent claps hands and kid counts number of times.	Touch, See, Hear
Worksheets	Numeracy	Various Math Activities	Answer question on the printable worksheets	Connect the number of dots to the number	See, Touch
Takalani Sesame	Numeracy	Parent's guide	Tips for parents on ways of incorporating math into everyday interactions with child	Use Math language often e.g. "Here is one apple for you."	N/A
Videos	Numeracy	Addition, Subtraction	Watch program that allows child to not only see numbers, but also hear them.	Video lesson teaching math.	See, Hear
Pearson	Numeracy	Various Math Readings	Reading book	SmartKids book series	See, Hear

Annexure D: Network diagrams
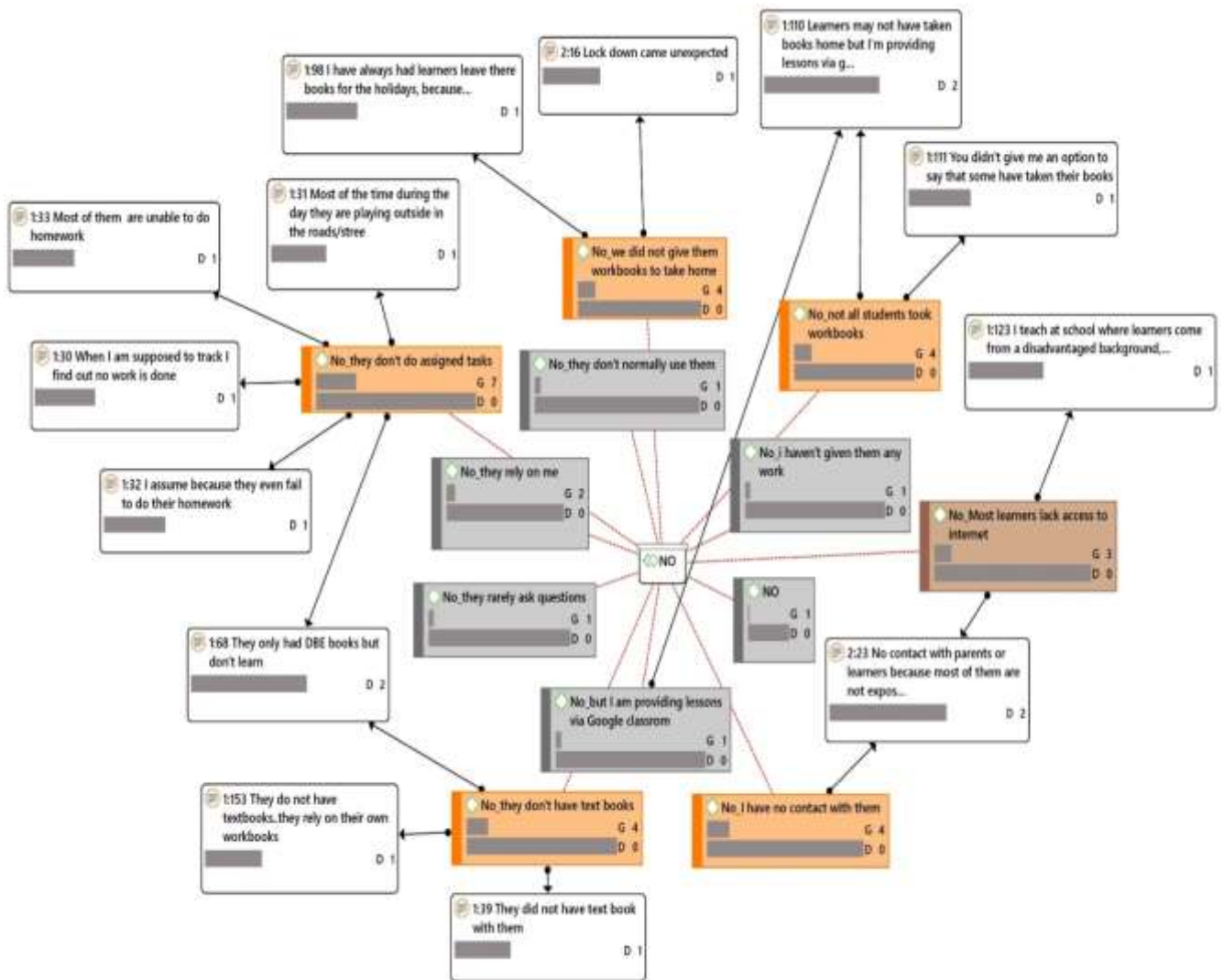
Network Diagram – Teacher awareness of learner workbook and textbook use (No)

Network Diagram – Teacher awareness of learner workbook and textbook use (Not sure/I don't know)
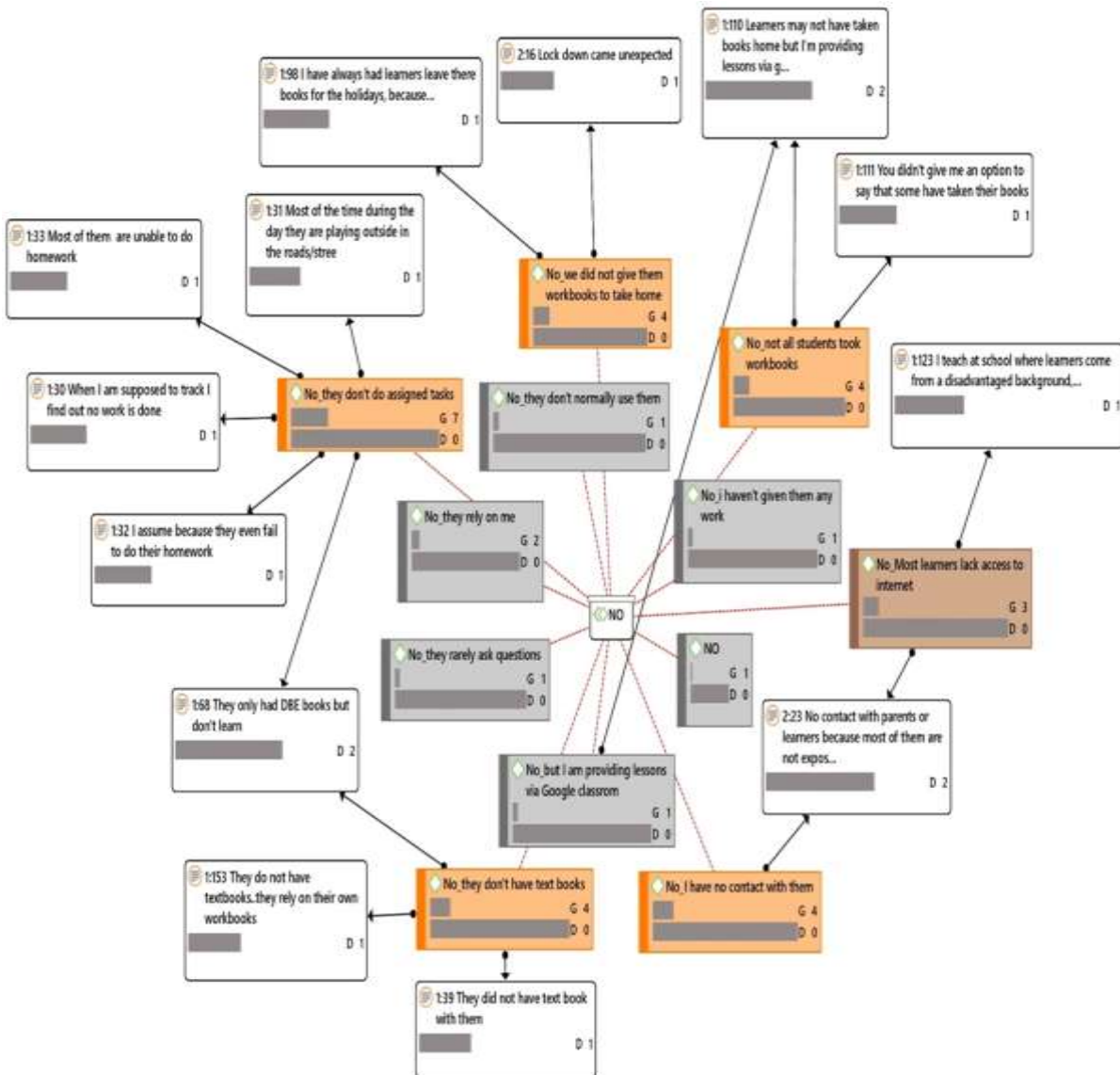
©JET EDUCATION SERVICES
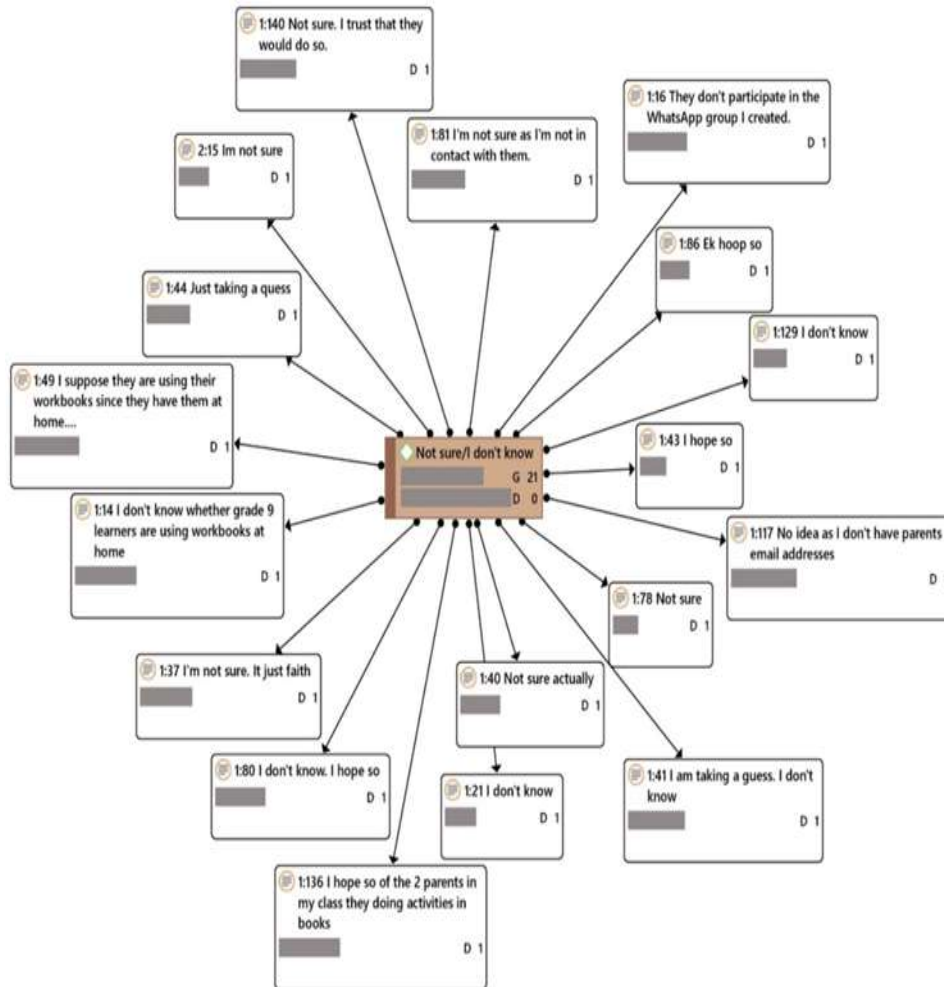
Annexure E: Teacher awareness of TV and radio lessons by subject

Subject	% awareness
Maths	93,5%
English	100,0%
Maths + English	75,0%
Life Science	100,0%
Maths + Life Science	80,0%
Maths + English + Life Science	100,0%
Phys Science	100,0%
Maths + Phys Science	100,0%
Maths + English + Phys Science	66,7%
Life Science + Phys Science	75,0%
Maths + Life Science + Phys Science	100,0%
Bus Science	100,0%
Maths + Bus Science	100,0%
Other Language	92,3%
Maths + Other Language	100,0%
English + Other Language	100,0%
Life Science + Other Language	100,0%
Maths + English + Life Science + Other Language	0,0%
Phys Science + Other Language	100,0%
Bus Science + Other Language	100,0%
Life Orientation	100,0%
Maths + Life Orientation	100,0%
English + Life Orientation	100,0%
Maths + English + Life Orientation	83,3%
Phys Science + Life Orientation	100,0%
Maths + Phys Science + Life Orientation	100,0%
Life Science + Phys Science + Life Orientation	100,0%
Maths + Life Science + Phys Science + Life Orientation	100,0%
Maths + English + Life Science + Phys Science + Life Orientation	0,0%
Bus Science + Life Orientation	100,0%
Maths + Other Language + Life Orientation	0,0%
English + Other Language + Life Orientation	94,7%
Phys Science + Other Language + Life Orientation	100,0%
Geography	100,0%
Maths + Geography	100,0%
Phys Science + Geography	100,0%
History	100,0%
Bus Science + Other Language + History	100,0%
Bus Science + Life Orientation + History	0,0%
Geography + History	100,0%
Maths + Geography + History	0,0%
English + Geography + History	100,0%
Maths + English + Geography + History	100,0%

Subject	% awareness
English + Life Science + Geography + History	100,0%
Phys Science + Geography + History	100,0%
Maths + Phys Science + Geography + History	100,0%
Maths + English + Phys Science + Geography + History	100,0%
Other Language + Geography + History	0,0%
English + Other Language + Geography + History	100,0%
Life Science + Phys Science + Other Language + Geography + History	100,0%
English + Life Orientation + Geography + History	100,0%
Maths + Phys Science + Life Orientation + Geography + History	100,0%
Maths + English + Life Science + Phys Science + Life Orientation + Geography + History	0,0%
English + Other Language + Life Orientation + Geography + History	100,0%
Life Science + Phys Science + Other Language + Life Orientation + Geography + History	100,0%
Maths + English + Life Science + Phys Science + Other Language + Life Orientation + Geography + History	75,0%
Bus Science + Other Language + Life Orientation + Geography + History	100,0%
Engineering	66,7%
Phys Science + Engineering	100,0%
Maths + English + Life Science + Phys Science + Life Orientation + Geography + History + Engineering	100,0%
None	**100,0%**
Average	**92,0%**