

PHASE 1

WORKING TITLE:

An Operational Framework for Improving the Teaching and Learning of Economics in Secondary Schools in the Free State Province

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The analysis and views presented in this report are not those of the Free State Provincial Treasury nor the Free State Department of Education. The authors remain responsible for all errors and omissions in the report.

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List of Abbreviations

- DBE - Department of Basic Education
DoE - Department of Education (Free State)
EMIS - Education Management Information System
MEC - Member of the Executive Council of the Province

Chapter 1

Introduction, Background and Overview of the Study

1.1 Introduction

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1.1 Introduction

During the prize-giving ceremony for the Provincial Treasury's Grade 12 Provincial Budget Essay Competition held in Xhariep in March 2017, the Member of the Executive Council (MEC) responsible for Education in the Free State, Honourable Tate Makgoe, requested that based on its current capacity and capabilities, Provincial Treasury assists with the teaching of Economics in Free State schools. In this regards, Provincial Treasury adopted a two-pronged approach including guest presentations to schools on an invitation basis as well as consideration of teacher development oriented interventions, possibly with other relevant stakeholders.

On the issue of teacher development, it became particularly important that Provincial Treasury develops an understanding of where the gaps and challenges are prior to developing a framework to respond to the call of the MEC, hence the study. In this regard, a research proposal was developed and presented to Provincial Treasury's Internal Research Workshop in July 2017 and a roundtable discussion was held with head-office-based officials from the Free State Provincial Department of Education involved in the teaching of Economics in August 2017 and the need and usefulness of the study was acknowledged. Furthermore, to the extent possible, the findings of the study and subsequent implementation framework will be used to solicit financial and non-financial support for the development of Economics educators from all possible sponsors, donors and partners.

Informed by prior studies on this topic such as Sekwena (2014), this study seeks to improve the teaching and learning of Economics in Free State high schools, and with much more focus on teaching and teacher development. In this way, and given the classroom-focus research methodology, the study practically takes efforts to improve teaching and learning of Economics to the next level and will thus add much value not only to the province, but possibly to the country at large and other developing regions with characteristics similar to the Free State.

Against the background that there is a shortage of accountants in the country and that the number of learners enrolling for Mathematics and Natural Sciences is not

consistent with the developmental needs of the country and province, the key limitation to the study is its exclusive focus on Economics as a school subject. However, this limitation also creates an opportunity for the conduction of similar studies for the other affected subjects.

1.2 Literature Review

More than a century ago, in a debate between sociologists, natural scientists and economists on the appropriateness of teaching Economics as a subject in American schools as well as the curriculum design, as an Economics Professor, Patten (1895) correctly prefaces the debate with the need to firstly understand what high schools are for and secondly what Economics is and why it is necessary. According to him, Economics has to do primarily with conscious, calculating thoughts and results. As such, it is important that children be trained into the habit of conscious calculation, of judging from cause to effect. He continues to again correctly argue that the non-inclusion of Economics in formal teaching in high schools leaves a gap on understanding of economic phenomena as well as intelligent observation of economic facts. Adding a bit of context to this, Santomero (2003) emphasises the need for classrooms teaching to help young people understand the workings of the economy and the financial system in which they are just beginning to participate.

Yet more than a hundred years later, we still find ourselves in the same predicament. Santomero (2003), citing the 2002 National Council on Economic Education report, states that in 2002, 48 states and the District of Columbia had Economics standards in their schools. However, only 17 states required that an Economics course even be offered in high school, and just 14 states required students to take such a course in order to graduate. In a survey conducted by the American Savings Education Council, only 21 percent of students between the ages of 16 and 22 had indicated that they have had no exposure to personal finance training, thus begging the question – what kind of consumers are being bred by the US schooling system? It is for this reason that Santomero (2003: 3) makes a passionate plea that *“starting now, we must all work to secure Economics a place in school curricula, with substantial classroom time devoted to economic instruction”*. Leet & Lopus (2012) reports that today, every state in the USA, except Rhode Island, includes Economics as a part of its public school

curriculum. As of 2009, 21 states required that students take a high school Economics course as a graduation requirement, up from 17 states in 2007 and 14 in 2003. (Leet & Lopus, 2012). The increased importance of Economics in high schools means it is critically important that it be taught well and that teachers are well-trained to teach it.

Coming closer to home, the schooling system in South Africa is divided into four phases, namely foundation phase (i.e. Grades R, 1, 2 and 3); intermediate phase (i.e. Grades 4 to 6); senior phase (i.e. Grade 7 to 9); and Grades 10 to 12. Economics is introduced as part of the Economics and Management Sciences in the senior phase and taught as a stand-alone subject in Grades 10 to 12. The Department of Education (2011) states that the Economics curriculum for grades 10 to 12 covers valuable skills such as responsibility, accountability, problem solving, analysis, interpretation and decision making that prepare learners for participation in, contribution to and survival in a complex economic society. Done right, economic education can have large-scale results — results that are sweeping, significant, and supportive of a higher standard of living (Santomero (2003).

There are different factors that affect the academic performance of Economics at schools. For instance, it has been argued that poor performance of learners taking Economics as a course can be associated with foundational background and socio-economic status of learners associated with: type of school, gender, nationality, and parental educational background (see e.g. Dolado and Morales, 2007). However, Rothman and Scott (1973); Siegfried and Fiels (1979); McConnell and Sosin (1984) – all affirmed that prior training in Economics, class size and socio-economic background do not actually matter in the students' performance.

Meanwhile, the empirical study by Hanushek (1986) reveals that the school quality have tenuous effect on their performance. Akinloye et al. (2015) emphasises that private schools' performance in Economics is better than of public schools due to their location, teachers' socio-economic status and the availability of instructional material which assist in the level of students' performance. On gender basis, Dolado et al. (2007), maintains that on average level, female students tend to perform better than male students. In addition, Kremer (1996) argued that the student-teacher ratio is a vital determinant which assess the overall performance of the students. Likewise,

studies have shown that students with educated parents will typically provide academic assistance (e.g. tutorship) and moral support required to excel in Economics (Case and Deaton, 1999) whereas, most students that enrolled for Economics subject are those with natural flare for mathematics, and quantitative analysis.

Furthermore, math skills combined with Economics assist students who would prefer to take up careers in occupations such as commerce, accounting and banking with intellectual training, preparation for citizenship and vocational training generally for business purposes (see Bukari and Amenuku 2017). According to Riddle (1978), students who studied Economics develop more economic freedom hence, Matthews (1999) elucidate that Economics assist in equipping learners with basic economic skills and knowledge which enable them understand economic concepts; appreciate and participate in the economic environment they live in to become better customers, more efficient future producers; savers, investors and labour market participants. Indeed, economic knowledge, quantitative skills and values gained from Economics subject can assist learners to improve and promote their standard of living, welfare and human resource development as compared to those economically uninformed students (see e.g. Kotte and Witt, 1995).

Hansen, Salemi and Siegfried (2002) found that introductory Economics enrolment decline because it does not teach students how to apply Economics to their personal, professional and public lives. However, Armento (2001), revealed that Economics learning of terms and definitions is not necessarily sterile and unrelated to their lives. Saunders and Gillard (2005) believe that some economic concepts are relatively difficult to learn because of their involvement in grasping relationships among other several concepts. Likewise, Hervani (2004) also maintains that the creation of the stronger link between the Economics material presented in the classroom and how it is utilized in the real world enhances the students' appreciation of economic concepts. Sekwena (2014) argues that active learning approach seems to help the learners to understand the abstract Economics concepts better, compared to the heavy reliance on the chalk-and-talk approach, which often leads to learner passivity in the classroom and rote learning. Kurgat (2014) asserts that there is an implication that the subject is likely to be phased out of the secondary school curriculum since the performance is

relatively unsatisfactory as compared to other subjects which results to the decline in the enrolment of Economics.

Citing Bonner (2010:187), there appears to be two approaches to teaching, namely learner-centred and teacher-centred. According to Powner (2006), the greatest advantage of a teacher-centred approach for its proponents is its ability to cover a big scope of content information, whilst proponents learner-centred approach argue that active learning techniques increase learners' engagement and thus create lifelong learners who enjoy what they are doing. However, Sekwena (2014) observed that the teaching of Economics in high school seems to have features of a predominantly teacher-centred approach with minimal learner engagement, resulting in learner passivity in the classroom. In a passive learning environment, learners often find it difficult to link the concepts they are taught in class with the outside economic world and it becomes difficult for them to make meaning out of the concepts, which seem to lack relevance to them. Learners will instead resort to a mere memorisation of these concepts.

Conversely, citing several sources, Sekwena (2014) found that literature is more in favour of a learner-centred approach and argue for its suitability for the teaching of a subject such as Economics with its conceptual and practice-oriented elements. Central to the learner-centred approach is the notion of active learning which is said to enhance learning by engaging learners more.

Having surveyed existing literature, it is evident that poor performance in economic subject in secondary schools is largely influenced by both social, economic and infrastructural related factors. Generally speaking, pervasive poor performance in Economics subjects in schools is also dependent on the personal interest and intellectual capability of both the teachers and students to conceptualise economic theories underpinned by mathematical reasoning and practical applicability of these theories in the real world.

1.3 Problem Definition

In 2006, Economists were included in the list of scarce skills (ASGISA) in South Africa. At the time, it was cited that there was a shortage of Economists in the country. Even though there has not been any update on the progress the country has made in addressing this, unsubstantiated allegations obtained through informal discussions with those on the ground in the province are that: (1) the number of high schools offering Economics in the Free State province is on a decline; (2) the number of learners that enrol for the subject at Grade 10 is on a decline; (3) the number of learners that enrol for Economics as a subject for Matric exams is on the decline; and (4) the number of learners that pass Economics is declining. Various speculative factors underlying these have been provided, and these revolve mainly around two issues. On the one hand, it is alleged that learners find Economics to be a difficult subject, whilst on the other hand it is also alleged that educators have a limited ability to teach the subject. To get to the bottom of this, it is vital that a platform for an honest, transparent and meaningful interaction with key role players, be developed.

1.4 Research Aim

The primary aim of this study is the development of an implementation framework that seeks to improve the teaching and learning of Economics as a subject in Free State high schools, with focus interventions on teaching and teacher development. Our theory of change here is that an improvement in the teaching and learning of Economics will improve performance in the subject and increase enrolments rates, thereby responding to the skills needed for the transformation, growth and development of the province.

1.5 Research Objectives

To facilitate the achievement of the primary aim of this study, the following research questions needs to be posed:

- (a) What are the trends in the enrolment and performance of learners for Economics in Grades 10 to 12 in Free State schools for the period 2000 to 2016 and how do these compare to other provinces?

- (b) How is the teaching and learning environment with respect to Economics in the Free State?
- (c) What are the challenges and bottlenecks in the teaching and learning of Economics in the Free State?
- (d) What are the proposed solutions and interventions to address challenges and bottlenecks that impedes an improvement in teaching and learning of Economics in the Free State?
- (e) When and how should the proposed solutions and interventions be implemented and what will the responsibility of the different stakeholders be?

1.6 Research Design and Methodology

A research design is a plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problems. The plan is the complete scheme or programme of the research (Kumar, 2011). In this study, the research design to be adopted is participatory action research, commonly known as PAR. According to Greenwood, Whyte & Harkavy (1993), participatory action research is a form of action research in which professional social researchers operate as full collaborators with members of organizations in studying and transforming those organizations. It is an ongoing organizational learning process, a research approach that emphasizes co-learning, participation and organizational transformation. The goal of PAR, according to Hughes (2003:41), is to build a community's capacity to solve self-identified problems. It assumes that local knowledge is essential to a better understanding of problems and construction of effective interventions. As articulated in Sekwena (2014), in this approach, relevant knowledge includes that of the researcher as an outsider and community members as the insiders.

According to Kumar (2011), participatory research is based upon the principle of minimising the 'gap' between the researcher and the research participants and increased community involvement and participation to enhance the relevance of the research findings to their needs. It is assumed that such involvement will increase the possibility of the community accepting the research findings and, if need be, its willingness and involvement in solving the problems and issues that confront it.

Sekwena (2014) advises that using PAR for a study like this one provides an opportunity to engage with other stakeholders over a sustained period to thoroughly investigate the problem, plan jointly on how best to tackle it, implement the suggested solutions and critically evaluate the impact of the proposed solutions as a group.

The table below provides an overview of the research design and methodology and clearly outlines the linkage between research objectives, research methods, data collection and analysis.

Table 1.1: Overview of the Research Methodology

Research Objective	Research Method	Data to be collected	Data Source	Data Collection Tool
Background	<ul style="list-style-type: none"> Literature Review 	<ul style="list-style-type: none"> Published papers Unpublished papers 	<ul style="list-style-type: none"> Journals Thesis and Reports 	<ul style="list-style-type: none"> Desktop
	<ul style="list-style-type: none"> Document Management 	<ul style="list-style-type: none"> Curricula Departmental Documents and Reports 	<ul style="list-style-type: none"> DBE-FS 	<ul style="list-style-type: none"> Desktop
Trend Analysis	<ul style="list-style-type: none"> Collection of Secondary data 	<ul style="list-style-type: none"> Enrolment numbers and pass rates for FS Enrolment numbers and pass rates for other provinces 	<ul style="list-style-type: none"> EMIS data from DBE-FS DBE National 	<ul style="list-style-type: none"> Desktop
Teaching and Learning and Environment in the Free State	<ul style="list-style-type: none"> Survey with stratified random sampling 	<ul style="list-style-type: none"> Responses of 3 290 Grades 10-12 Economics Learners Responses of 44 Economics Educators and Heads of Department 	<ul style="list-style-type: none"> Learners Questionnaires Educators Questionnaires 	<ul style="list-style-type: none"> Questionnaires
Challenges and backlogs in Teaching and Learning and Environment in the Free State	<ul style="list-style-type: none"> Survey with stratified random sampling 	<ul style="list-style-type: none"> Responses of 3 290 Grades 10-12 Economics Learners Responses of 44 Economics Educators and Heads of Department 	<ul style="list-style-type: none"> Learners Questionnaires Educators Questionnaires 	<ul style="list-style-type: none"> Questionnaires
Solutions and Interventions in Teaching and Learning and Environment in the Free State	<ul style="list-style-type: none"> Survey with stratified random sampling 	<ul style="list-style-type: none"> Responses of 3 290 Grades 10-12 Economics Learners and 44 Economics Educators and Heads of Department 	<ul style="list-style-type: none"> Questionnaires for Learners and Educators 	<ul style="list-style-type: none"> Questionnaires
	<ul style="list-style-type: none"> Focus Groups based on purposive sampling 	<ul style="list-style-type: none"> Round Table Discussion with Provincial Coordinator, Chief Education Specialist and 6 Learning Facilitators 	<ul style="list-style-type: none"> Round Table Discussion 	<ul style="list-style-type: none"> Draft Report with Findings and Recommendations

Implementation Framework	• Stakeholder consultations	• Post-study workshop/roundtable with identified stakeholders	• Draft Report with findings, resolutions and recommendations.	• Workshop
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On the research methods, the study will adopt a mixed methods. A quantitative method will be used mostly for trend analysis whilst the qualitative method will be used during the enquiry.

A sample constitutes the selected number of respondents from the target population on whom the study will actually administer the research instruments and methods to collect the data (Zikmund, 2010:369). There are two types of stratified sampling: proportionate stratified sampling and disproportionate stratified sampling. With proportionate stratified sampling, the number of elements from each stratum in relation to its proportion in the total population is selected, whereas in disproportionate stratified sampling, consideration is not given to the size of the stratum.

The table below provides a synopsis on which sampling for this study is based.

Table 1.2: Population and Sample Size based on 2016 enrolments

Population							Non-stratified Sample						
Schools	percent share	Grade 10	Grade 11	Grade 12	Total	percent Share	Schools	percent share	Grade 10	Grade 11	Grade 12	Total	percent Share
10	5 percent	458	355	185	998	3 percent	2	5 percent	46	36	19	100	3 percent
55	25 percent	4 137	3 072	2 430	9 639	29 percent	11	25 percent	414	307	243	964	29 percent
50	23 percent	4 650	2 628	1 897	9 175	28 percent	10	23 percent	465	263	190	918	28 percent
62	28 percent	3 540	2 805	1 900	8 245	25 percent	12	28 percent	354	281	190	825	25 percent
42	19 percent	2 287	1 515	1 029	4 831	15 percent	8	19 percent	229	152	103	483	15 percent
219	100 percent	15 072	10 375	7 441	32 888	100 percent	44	100 percent	1 507	1 038	744	3 289	100 percent

Source: EMIS database and authors calculations

In this study, 3 289 learners will be sampled per grade and school classification by quintile, with the majority of the learners expected to be Grade 10s and the majority of schools expected to be from Quintiles 1 to 3. The study will use a structured questionnaire and deploy 32 field workers to collect data from a sample of 3 289 learners from a population group of 32 888, as well as 44 educators sampled from a population of 219 schools. A questionnaire-based survey, focus group discussion

guide, and case study parameters will therefore be compiled and administered to the sample elements from each of the five education districts in the Free State province. The advantages and disadvantages of surveys, as outlined in Du Plooy-Cilliers, Davis and Bezuidenhout (2015), are tabulated below:

Table 1.3: Advantages and Disadvantages of Surveys

Advantages	Disadvantages
<ul style="list-style-type: none"> • Collect a lot of data 	<ul style="list-style-type: none"> • Collection and analysis often requires specialised knowledge
<ul style="list-style-type: none"> • Versatile and can be conducted in any setting 	<ul style="list-style-type: none"> • Data can be artificial and superficial
<ul style="list-style-type: none"> • Relatively inexpensive compared to other data collection methods 	
<ul style="list-style-type: none"> • Anonymously gathered data 	
<ul style="list-style-type: none"> • Standardize the data 	

The second tool will be the focus group discussion guide that will comprise the Economics Coordinator for province, the Chief Education Specialist, as well as the six Learning Facilitators. The discussion will focus primarily on the analysis of findings, identification of interventions as well as the development of an implementation framework.

This study will make use of quantitative and qualitative data analysis tools to analyse the data from the questionnaires and focus group discussions. The tabulation and analysis of data collected from this sample is anticipated to yield reliable and valid results. Amongst others, Eviews, Microsoft Excel and any other applicable statistical softwares will be used for analysis. Given the sampling method chosen, the findings from the sample will be generalised to the research population of Free State high schools that offer Economics as an examinable subject.

1.7 Scope of the study

This study will focus on the teaching and learning of Economics as a high school subject in the five education districts of the Free State Province. It will involve 3 290 learners from 44 high schools in the Free State.

1.8 Ethical considerations

Welman, Kruger and Mitchell (2011:181) state that ethical considerations are concerned with matters such as plagiarism and honesty in reporting the results and respect for the rights of individual's during data collection. Even though the Department of Basic Education (DBE) does not grant approval for the conduct of research in Provincial Departments (DBE, 2017), it still provides useful guidelines in terms of amongst others the application procedure, ethical considerations, accountability as well as contacts at provincial departments. In terms of ethical consideration, some of the critical guidelines outlined include the following:

- Need to gain approval from ethics committee prior to commencement of the research;
- Obtaining informed consent from participants;
- Voluntary participation and the right to decline request for participation by those to be interviewed;
- Maintenance of privacy, confidentiality, anonymity and respect for human dignity of all participants;
- Provision of full report and executive summary to the Department of Education; and
- Disclaimers absolving the Department of Education.

The researchers will seek permission from the Free State Department of Education to conduct the study and from the principals of the sampled schools where the study was to be conducted. Consent was obtained from the parents of the learners giving their permission that the children could participate in the study. Consent from the teachers to participate in the study will also be obtained. In addition, the researchers will also

seek permission from officials from the Education Department who will be participating in the focus group session to audiotape the discussion and assure them that the exercise will be purely to ensure accuracy of data-capturing. To protect their identities, pseudonyms will be used for the focus group session(s). Furthermore, all participants in the research project will be informed that the objective of the exercise is to assist government, and that all expenses will be paid for by the Free State Provincial Treasury and that there will be no financial benefits for all those that will be participating, with the exception of the Field Workers who will be administering the questionnaire. Lastly, participants will be assured that the study will not pose any threat or risk, as it would be conducted in the normal teaching and learning environment.

1.9 Structure of the Study

The final report of this research study is envisaged to be structured as follows:

- Chapter 1 – Introduction
- Chapter 2 – Literature Review
- Chapter 3 – Methodology
- Chapter 4 – Analysis
- Chapter 5 – Implementation Framework
- Chapter 6 – Conclusions and Recommendations

1.10 Budget

Table 1.4: Overview of the Budget

Area	Administration of Questionnaires						Meals				Total	
	No. of Questionnaires : Learners	Cost per Questionnaire	No. of field workers	Questionnaires per person	Cost per person	Total Cost	No. of field workers	No. of meals	Rate per meal	Total Cost	Total Per Person	Aggregate Total
Xhariep	100	27.50	1	100	2 750.00	2 750.00	1	2	150.00	300.00	3 055.00	3 055.00
Motheo	964	27.50	9	107	2 945.56	26 510.00	9	2	150.00	2 700.00	3 245.56	29 210.00
Lejweleputswa	918	27.50	9	102	2 805.00	25 245.00	9	2	150.00	2 700.00	3 105.00	27 945.00
Thabo Mofutsanyane	825	27.50	8	103	2 835.94	22 687.50	8	2	150.00	2 400.00	3 135.94	25 087.50
Fezile Dabi	483	27.50	5	97	2 656.50	13 282.50	5	2	150.00	1 500.00	2 956.50	14 782.50
Sub-Total / Average	3290	27.50	32	103	2 827.34	90 475.00	32	10	150.00	9 600.00	3 127.50	100 080.00

1.11 Summary

This study emanates from a request by the MEC of Education for the Provincial Treasury to assist with the teaching of Economics in Free State high schools so as to improve learner and teacher performance on the subject as well as to increase enrolments rates for the subject. For a more comprehensive diagnosis of the problem, Provincial Treasury will conduct a Participatory Action Research. This will entail administering questionnaires as follows: (1) to a sample of 3 290 learners in 44 secondary schools across the 5 districts in the Free State; (2) to a sample of 44 Economics Educators across the 5 districts in the Free State; (3) to a sample of 44 Heads of Department for Economics and Management Sciences (EMS). Also, focused group sessions will be held with the Provincial Coordinator and Learning Facilitators responsible for Economics in the province. The study will not pose any threat or risk to any of the participants as it would be conducted in the normal teaching and learning environment. The study will also adhere to the general ethics of social research and the specific guidelines on ethics and accountability as articulated in the Department of Basic Education's Research Protocols. All the expenses for the study will be paid for by the Free State Provincial Treasury and there will be no financial benefits for all those that will participate, except for field workers. The expected outcome of the study is the development of an implementation framework for educator development in the subject field of Economics.

1.12 Timelines

Table 1.5: The initial timelines

	Key Activity (High Level)	Period	Responsibility
1	Conceptualization of the Study	July 2017	IJ Moses
2	Preliminary data collection and Trend Analysis	August 2017	R Sepenyane, G Mashibini, I Khabele
3	Focus Group Discussions	August 2017	IJ Moses
4	Development of Research Proposal	November 2017-January 2018	IJ Moses
5	Literature Review – desktop	August-December 2017	I Khabele, IJ Moses
6	Sampling	November-December 2017	IJ Moses, R Sepenyane, G Mashibini, I Khabele
7	Obtain Approval from HoD Education	February 2018	IJ Moses
8	Development of Questionnaires	August-Dec 2017	IJ Moses, R Sepenyane, G Mashibini, I Khabele
9	Piloting of the Questionnaire	July-August 2017	R Sepenyane, G Mashibini, I Khabele
10	Questionnaire Review	January 2018	R Sepenyane, G Mashibini, I Khabele
11	Administration of the Questionnaire	March 2018	R Sepenyane, G Mashibini, I Khabele + Field Workers
12	Capturing of Completed Questions	March 2018	R Sepenyane, G Mashibini, I Khabele + Field Workers
13	Analysis of Completed Questionnaires	April 2018	R Sepenyane, G Mashibini, I Khabele
14	Compilation of 1 st Draft Report	May 2018	R Sepenyane, G Mashibini, I Khabele
15	Focus Group Discussions	June 2018	IJ Moses
16	Compilation of Final Report	July 2018	IJ Moses, R Sepenyane, G Mashibini, I Khabele
17	Workshop and Dissemination of the Report	August 2018	IJ Moses, R Sepenyane, G Mashibini, I Khabele
	TOTAL	July 2017-Aug 2018	

Chapter 2

Literature Review

2.1 Introduction

Citing Bonner (2010:187), there appears to be two approaches to teaching, namely learner-centred and teacher-centred. According to Powner (2006), the greatest advantage of a teacher-centred approach for its proponents is its ability to cover a big scope of content information, whilst proponents learner-centred approach argue that active learning techniques increase learners' engagement and thus create lifelong learners who enjoy what they are doing. However, Sekwena (2014) observed that the teaching of Economics in high school seems to have features of a predominantly teacher-centred approach with minimal learner engagement, resulting in learner passivity in the classroom. In a passive learning environment, learners often find it difficult to link the concepts they are taught in class with the outside economic world and it becomes difficult for them to make meaning out of the concepts, which seem to lack relevance to them. Learners will instead resort to a mere memorisation of these concepts.

Conversely, citing several sources, Sekwena (2014) found that literature is more in favour of a learner-centred approach and argue for its suitability for the teaching of a subject such as Economics with its conceptual and practice-oriented elements. Central to the learner-centred approach is the notion of active learning which is said to enhance learning by engaging learners more.

2.2 LITERATURE REVIEW

The rapid developments and globalisation underscore by growing inter-linkages in the world economy that influence the strategic decisions of government (public), firms (private) and households make Economics an important subject to teach and learn in a formally structured educational institutions. The knowledge of Economics as a subject is useful in evaluating economic decisions related to consumption, optimization

of available scarce resources (i.e. capital, land and labour), policy design and implementation. There must be a way to demonstrate economic way of thinking while engaging with students in the learning process by looking at the performance and Economics importance in their lives.

There are different factors that affect the academic performance of Economics at schools. For instance, it has been argued that poor performance of learners taking Economics as a course can be associated with foundational background and socio-economic status of learners associated with: type of school, gender, nationality, and parental educational background (see e.g. Dolado and Morales, 2007). However, Rothman and Scott (1973); Siegfried and Fiels (1979); McConnell and Sosin (1984) – all affirmed that prior training in Economics, class size and socio-economic background do not actually matter in the students' performance.

Meanwhile, the empirical study by Hanushek (1986) reveals that the school quality have tenuous effect on their performance. Akinloye et al. (2015) emphasises that private schools' performance in Economics is better than of public schools due to their location, teachers' socio-economic status and the availability of instructional material which assist in the level of students' performance. On gender basis, Dolado et al. (2007), maintains that on average level, female students tend to perform better than male students. In addition, Kremer (1996) argued that the student-teacher ratio is a vital determinant which assess the overall performance of the students. Likewise, studies have shown that students with educated parents will typically provide academic assistance (e.g. tutorship) and moral support required to excel in Economics (Case and Deaton, 1999) whereas, most students that enrolled for Economics subject are those with natural flare for mathematics, and quantitative analysis.

Furthermore, math skills combined with Economics assist students who would prefer to take up careers in occupations such as commerce, accounting and banking with intellectual training, preparation for citizenship and vocational training generally for business purposes (see Bukari and Amenuku 2017). According to Riddle (1978), students who studied Economics develop more economic freedom hence, Matthews (1999) elucidate that Economics assist in equipping learners with basic economic skills and knowledge which enable them understand economic concepts; appreciate and

participate in the economic environment they live in to become better customers, more efficient future producers; savers, investors and labour market participants. Indeed, economic knowledge, quantitative skills and values gained from Economics subject can assist learners to improve and promote their standard of living, welfare and human resource development as compared to those economically uninformed students (see e.g. Kotte and Witt, 1995).

Hansen, Salemi and Siegfried (2002) found that introductory Economics enrolment decline because it does not teach students how to apply Economics to their personal, professional and public lives. However, Armento (2001), revealed that Economics learning of terms and definitions is not necessarily sterile and unrelated to their lives. Saunders and Gillard (2005) believe that some economic concepts are relatively difficult to learn because of their involvement in grasping relationships among other several concepts. Likewise, Hervani (2004) also maintains—that the creation of the stronger link between the Economics material presented in the classroom and how it is utilized in the real world enhances the students' appreciation of economic concepts. Sekwena (2014) argues that active learning approach seems to help the learners to understand the abstract Economics concepts better, compared to the heavy reliance on the chalk-and-talk approach, which often leads to learner passivity in the classroom and rote learning. Kurgat (2014) asserts that there is an implication that the subject is likely to be phased out of the secondary school curriculum since the performance is relatively unsatisfactory as compared to other subjects which results to the decline in the enrolment of Economics.

Poor performance in Economics can also be attributed to deficient trainings available for teachers to deepen their understanding of the Economics, and generally weak quantitative skills and cognitive reasoning ability of students' to grasp economic theories. For example, Adu and Adeyanju, (2013) emphasised that even though teachers have all the qualifications, they need to have the good method of teaching in order to produce good results and increase students' performance. However, Leet and Lopus, (2012) agreed that teaching Economics can be challenging even though, there are many resourceful materials available to be used to assist in the classroom. On the other hand, Wion (2008) argued that although the teachers have qualifications, they struggle to teach Economics and therefore there are strategies that still need to be

observed of whether they have enough economic education. He further emphasised that the use of the conventional teaching method for Economics is prevalent among many teachers, which causes students to develop an indifferent attitude towards the subject, and also demonstrated an uninterested attitude. However, Wurdinger and Rudolph (2009) derived five different experimental approaches: project-based learning, problem-based learning, place-based education, service learning and active learning, to aid, inspire and motivate students in the learning process and as a result, there is more exciting and a better educated society.

Borg and Shapiro (1996) empirical study showed that the student would do better in class if the student and teacher had similar learning styles. As a result, Teachers need to allow students to work together in groups and assess them as an artefact of learning activities. Wentland (2004) maintains that an analysis in teaching process and communication between learners and teachers must be a priority in effectiveness of the teaching strategies. Whereas, Rosales (2012) argues that there may be a disconnection between learners and teachers that may affect the performance of the subject. Kurgat, (2014) affirms that most students cannot fully comprehend the subject matter due to the difficult language used in the text books therefore, teachers need to ensure that they use different methods such as learner-centred method (see Weimar, 2013) to achieve the objective of the subject to students. Salemi (2005) observed that students appreciate that Economics is relevant and important hence, they try to master concepts that they can use in their studies by analysing them in active learning.

Van Wyk (2013) discovered that economic games such as competitions where students earn small prizes and having fun motivate students to take charge for their own learning because they enhance academic performance, interpersonal relationships and link them to real life experiences on the operation of the markets. Similarly, in order to improve the overall performance of students in economic subjects, adequate physical infrastructure, teaching resources and trainings are imperative. Along this line, Bakare (1994) affirmed that there is inadequacy basic infrastructure required for effective teaching and learning because good performance needs books available in libraries and audio-visual teaching aids such as televisions, radio and computers which however, seem to be under-utilized. Nguyen (2010), stated that technology is vital in teaching and learning process as it provides an integrated

online access where students' active learning participation interact with their teachers, their classmates and internet.

Becker & Watts (2006) asserts that it is the responsibility of the teacher to enrich the subject by introducing current debates in the Economics field beyond the minor deviations of previous textbooks editions. The availability of these educational infrastructure assist students to keep abreast of, and comprehend with, topical socio-economic issues in the world economy, this in turn deepens their conceptual and deductive reasoning required to develop efficient problem-solving skill. Nevertheless, even if the school provides all the necessary educational infrastructure to ensure adequate learning of Economics subject, inherent negative attitude in some students can trigger an indifferent receptive and learning ability which dampens their interest in Economics subject, and leads to poor performance, for instance Ziegert (2000) shows that negative behaviour do affect students' performance. Mullins (2005) also concur that a negative attitude towards learning could result in poor performance of learners, which prevents them from excelling in Economics subject, as well as to develop keen interest to explore Economics in the secondary and tertiary institutions.

Ralenala (2003) maintains that thousands of schools with poor physical infrastructure are those based in rural areas and still have many dilapidated, dangerous, and unfit for human habitation which therefore influence absenteeism of both learners and educators. The study by Reddy et al. (2010) found that around 11 percent of teaching time is lost due to teacher absenteeism which leads to a decline in performance of the studies. Resultantly, it is important for teachers to be well grounded in learners' motivation and management (Wong, 2003), as one of the fundamental factor to foster an improved performance in Economics as a subject, and also heightens student's interest in the subject.

Mtshali (2008) emphasised that the Economics teachers' national curriculum statements (NCS) workshop trainings influence teachers to engage with the new curriculum. Brock and Lopus (2006) therefore, believe that these workshops must be conducted to demonstrate the teachers' economic way of thinking while they engage with students in their learning process. Dalton (2010) recommended that the teachers' objective must be to help learners to develop economic skills beyond the classroom. Additionally, School governing bodies and management needs to be institutionally

empowered to interfere in constructively on the physical and mental wellbeing of both students and teachers studying Economics as some learners/teachers with poor performance may be influenced by other external factors that needs professional counselling, for example, emotional imbalance due to bullying and family problems (see Mokgaetsi, 2009).

Having surveyed existing literature, it is evident that poor performance in economic subject in secondary schools is largely influenced by both social, economic and infrastructural related factors. Generally speaking, pervasive poor performance in Economics subjects in schools is also dependent on the personal interest and intellectual capability of both the teachers and students to conceptualise economic theories underpinned by mathematical reasoning and practical applicability of these theories in the real world. Notably, the detrimental effects of these factors on the Economics performance of learners is not only common to those students in South Africa but globally.

It is therefore vital in the case of South African schools to introduce students to Economics subject at an early stage (particularly primary level or Grade 8) of their enrolment like other subjects such as mathematics, science, languages and so on, in order for learners to know Economics basics as the general subjective evidence indicates that poor performance in Economics subjects is closely linked to general lack of interest to understand the complexity of the subject due to its application of mathematics, theories, and socio-economic issues. This academic strategy provides a well-ground foundation for easy learning of Economics subjects, and also provides teachers the opportunity to evaluate their knowledge of the subject and identify necessary additional trainings required to improve their knowledge. Furthermore, the early introduction of students to Economics subjects will give them ample time to expand their learning skills, develop conceptual and deductive reasoning ability, sharpen their mathematical skills, and also generate a keen interest to study Economics at tertiary institution with the view of following an economic-related career path as researchers, economist, policy analyst, economic advisor, etc.

Finally, the Department of Education (2011) stipulates the following as requirements to offer Economics as a subject:

- a) Resources to offer Economics as a subject are the responsibility of the school;
- b) Each learner should have access to:
- A textbook and
 - Stationery
- c) The teacher should have access to:
- A variety of textbooks for referencing
 - Statistics SA and SARB Quarterly Bulletin
 - SA Yearbook
 - SARS brochures
 - Legislation, for example, the Labour Relations Act
 - Business, financial and Economics magazines and newspapers
 - A television set (TV) and a radio
 - Internet (those with an access to internet)

Table 2.1: South Africa's Economics Curriculum

Curriculum and weighting	Topic
Macroeconomics (25 percent)	1. Economics: Basic concepts
	2. Basic economic problem
	3. Circular flow
	4. Quantitative elements
	5. Economic systems
	6. Business cycles
Microeconomics (25 percent)	7. Dynamics of markets
	8. Public sector intervention and composition of RSA economy
Economic pursuits (25 percent)	9. Economic growth and development
	10. Money and banking
	11. Population and labour force
	12. Labour market
	13. Redress since 1994
Contemporary issues (25 percent)	14. Unemployment
	15. Labour relations

	16. Globalisation
	17. Inflation
	18. Tourism
	19. Poverty
	20. Other economic issues and quantitative elements of Economics

Table 2.2: Curriculum Overview: Grade 10

Term	Topic
1	<ul style="list-style-type: none"> • Introduction to Economics: • Basic concepts • Basic economic problem • Circular flow • Quantitative Elements: Production and income • Business cycles
2	<ul style="list-style-type: none"> • Dynamics of markets • Production possibility curve • Public sector intervention
3	<ul style="list-style-type: none"> • Economic growth, development and globalisation • South African economic growth and development – historical context • History of money & banking • Population & labour force
4	<ul style="list-style-type: none"> • Economic issues of the day: Unemployment • Labour relations • Economic Redress

Table 2.3: Curriculum Overview: Grade 11

Term	Topic
1	<ul style="list-style-type: none"> • Factors of production and its remuneration • Economic goods & services • Economic systems • South Africa's economic structures
2	<ul style="list-style-type: none"> • Relationships between markets • Effects on cost & revenue on price and quantities • Price elasticity • Economic growth
3	<ul style="list-style-type: none"> • Poverty • Money & banking

	<ul style="list-style-type: none"> • Economic growth and development: South Africa's role and economic importance in Africa
4	<ul style="list-style-type: none"> • Globalisation • Environmental deterioration

Table 2.4: Curriculum Overview: Grade 12

Term	Topic
1	<ul style="list-style-type: none"> • Business cycles • Public sector • Foreign exchange markets
2	<ul style="list-style-type: none"> • Protectionism and Free trade • Perfect markets • Imperfect markets • Market failures
3	<ul style="list-style-type: none"> • Growth & development • Industrial development policies • Economic concepts and social performance indicators • Inflation • Tourism • Environmental sustainability
4	<ul style="list-style-type: none"> • Revision and examination preparation

Chapter 3

Methodology and Research Methods

3.1 Introduction

The approach that has been chosen to conduct this research study is Participatory Action Research (PAR), which is an approach that requires participation and action from the communities that are part of the research study. Sage Research Methods (2014) defines PAR as “a research paradigm within the social sciences which emphasizes collaborative participation of trained researchers as well as local communities in producing knowledge directly relevant to the stakeholder community”. PAR has been chosen because as explained in the introduction, the need for the research arose from the Free State Department of Education, based on the province’s poorer performance in relation to Economics, relative to other provinces. Although the Department of Treasury was identified to undertake the research, the challenges and solutions needed for Economics in the province had to be identified by DoE, hence the approach of conducting a survey with learners and teachers identified as the target participants.

Furthermore, the nature of the study required gathering preliminary secondary data from DoE to form the situational analysis and thereby assist in the formulation of the questionnaires as well as the sampling process. This data was gathered from the 24th July-4th August 2017 and was mainly quantitative in nature. However, the primary data collected during the undertaking of the survey from the 24th July - 8th August 2018 was qualitative in nature, with closed-end questions forming the majority of the questionnaires. The research is also identified as a cross sectional study, which required collecting all the primary data (of a particular interest) from the participants of the survey (Grade 10-12 Economics learners and Economics teachers), at one particular point in time (24th July - 8th August 2018).

The collected data will be coded and captured by 3 Data Capturers into 4 different spreadsheets, separated according to Grade 10, Grade 11 and Grade 12 Economics learners, as well as Economics teachers. Quality assurance of the captured data will

also be done the Data Capturers to ensure the data is correctly captured according to the filled questionnaires. Thereafter, the 2nd phase of the study will take place in 2019/20, which will involve the analysis of the data, a workshop to discuss the results of the research with DoE and collaboration between the Provincial Treasury and DoE in the development of the implementation framework, and the conclusion of the study.

3.2 Research Paradigm

Scotland (2012) explains that a research paradigm consists of 4 components, which are ontology, epistemology, methodology and methods. The table below further summarises these components. Ontology is concerned with “what is the reality” whilst epistemology is concerned with “how can one know reality” or how knowledge can be created, acquired and communicated. Methodology is concerned with “how to go about finding out” whilst methods focuses on “the techniques utilised to obtain information”. Although Scotland doesn’t discuss the theoretical perspective, this element of a research paradigm is concerned with approach of the research.

The research paradigm guiding the study is interpretative. Based on the table below, the ontology behind this research paradigm is that there is no single reality or truth, and that reality is created by individuals in groups. This correlates with the study given that a survey been conducted on 6 292 learners and 41 teachers, each providing answers based on their own perceptions and knowledge. The epistemology of the interpretive research paradigm requires the reality of the participants to be interpreted from the data they provide and to draw inferences and solutions regarding the challenges experienced whilst teaching and learning Economics in high schools in the Free State Province.

Given that the research undertaking requires the participants to provide knowledge in relation to their experience and/ or perception in the teaching and learning of Economics in high schools in the province, the theoretical perspective of the study is best classified as phenomenology. Therefore, the methodology chosen relates to PAR, which requires the participation of beneficiary of the study (DoE), and their involvement in drawing solutions for challenges experienced regarding the Economic

Subject in high schools. Lastly, the research is undertaken as a qualitative study, although elements of quantitative data are present in the situational analysis of the study. The teacher and learner questionnaires were formulated to conduct a survey, focusing on the following areas: 1) Learner Statistics, 2) Learning Methods, 3) Attitude towards Economics, 4) Learning Environment, 5) Learner Content Experience and 6) Challenges in the learner questionnaire, whilst the teacher questionnaire contained the following focus areas 1) Teacher Statistics, 2) Teacher Methods, 3) Attitudes Towards Work, 4) Teaching Environment, 5) Teaching Experience, 6) Teacher Development and 7) Challenges (see annexures 1 and 2).

Table 3.1: Research Paradigm

Paradigm	Ontology <i>What is reality?</i>	Epistemology <i>How can I know reality?</i>	Theoretical Perspective <i>Which approach do you use to know something?</i>	Methodology <i>How do you go about finding out?</i>	Method <i>What techniques do you use to find out?</i>
Positivism	There is a single reality or truth (more realist).	Reality can be measured and hence the focus is on reliable and valid tools to obtain that.	Positivism Post-positivism	Experimental research Survey research	Usually quantitative, could include: Sampling Measurement and scaling Statistical analysis Questionnaire Focus group Interview
Constructivist / Interpretive	There is no single reality or truth. Reality is created by individuals in groups (less realist).	Therefore, reality needs to be interpreted. It is used to discover the underlying meaning of events and activities.	Interpretivism (reality needs to be interpreted) <ul style="list-style-type: none"> • Phenomenology • Symbolic interactionism • Hermeneutics Critical Inquiry Feminism	Ethnography Grounded Theory Phenomenological research Heuristic inquiry Action Research Discourse Analysis Feminist Standpoint research etc	Usually qualitative, could include: Qualitative interview Observation Participant Non participant Case study Life history Narrative Theme identification etc
Pragmatism	Reality is constantly renegotiated, debated, interpreted in light of its usefulness in new unpredictable situations.	The best method is one that solves problems. Finding out is the means, change is the underlying aim.	Deweyan pragmatism <i>Research through design</i>	Mixed methods Design-based research Action research	Combination of any of the above and more, such as data mining expert review, usability testing, physical prototype
Subjectivism	Reality is what we perceive to be real	All knowledge is purely a matter of perspective.	Postmodernism Structuralism Post-structuralism	Discourse theory Archaeology Genealogy Deconstruction etc.	Autoethnography Semiotics Literary analysis Pastiche Intertextuality etc.
Critical	Realities are socially constructed entities that are under constant internal influence.	Reality and knowledge is both socially constructed and influenced by power relations from within society	Marxism Queer theory feminism	critical discourse analysis, critical ethnography action research ideology critique	Ideological review Civil actions open-ended interviews, focus groups, open-ended questionnaires, open-ended observations, and journals.

Source: Salma Patel, The research paradigm – methodology, epistemology and ontology – explained in simple language, 2015.

3.3 Research Design

3.3.1 Sampling

Through requesting secondary data from the Department of Education in the Free State, the department stated that there were approximately 32 888 learners who were taking Economics as a subject in 2017. From the 32 888, a 10 per cent sample size of the learners was chosen, therefore participants of the survey should have reached 3 288 learners across the province. However, data in relation to schools offering Economics was 232, and a 10 per cent sample size across all districts would have meant that only 1 school in Xhariep would have participated in the survey. Therefore, a 20 per cent sample size was chosen for the schools whilst the learner sample size remained at 10 per cent. The sampling process excluded special schools as well as schools which teach Economics in Afrikaans because there would have been a language barrier between the participants and the field workers during the conduction of the survey. Also, schools which had missing information e.g. quintiles were also excluded from the sampling process. Therefore the sampling of schools resulted in 42 schools being selected for the survey across the province, across all quintiles and across all districts. Thereafter, 10 routes were formed with schools on a similar route grouped together.

Although the initial learner sample size was 3 288, it was decided that in a particular Economics class, all learners must be given an opportunity to participate in the survey. Also, all teachers who are teaching Economics in a particular school must also be given an opportunity to participate in the survey. Therefore, the learner sample size for the Economics subject survey increased from 3 288 to 6 292 (which is the recorded number of learner questionnaires issued), which represents 91.4 per cent more learners than the initially calculated sample size. Therefore, the sample frame increased from 3 288 (10 per cent of total Economics Learners in the Free State) to 6 292 (19.1 per cent). All teachers who taught Economics were also given an opportunity to participate in the survey and 42 teachers participated in the survey.

The actual sampling process to select the 42 schools which would participate in the survey was done per district to ensure that all districts are represented in the research.

Within a specific district, all the schools offering Economics were included listed alphabetically. Their associated quintiles and local municipalities were included in the sampling spreadsheet. Thereafter, 20 per cent of all schools in a district was calculated to determine the sample size of the schools which should participate in the survey. Thereafter, the ratios of the all the schools per district were calculated according to the 5 quintiles and local municipalities of the district. These ratios informed how many schools from the 20 per cent sample size were needed per quintile and local municipality.

The school count per quintile was divided by the required sample in the specific quintile to determine the sequence of selection of the schools listed alphabetically, matching them to the required number of schools from a local municipality within in a particular district. The revised or final sample size per quintile and per municipality was determined by rounding up the calculated sample size (20 per cent) from EMIS.

Table 3.2: Summary tables of sampling per district

Mangaung										
	Number of School	Quintile					Number of School	Municipality		
		Q1	Q2	Q3	Q4	Q5		Mangaung	Mantsopa	Naledi
Count	50	7	13	20	4	6	50	41	7	2
Proportion	100%	14%	26%	40%	8%	12%	100%	82%	14%	4%
Initial sample from Emis (20%)	10	1.4	2.6	4	0.8	1.2	10	8.2	1.4	0.4
Revised Sample	10	1	3	4	1	1	10	8	1	1

Lejweleputswa												
	Number of School	Quintile					Number of School	Municipality				
		Q1	Q2	Q3	Q4	Q5		Masilonyana	Matjhabeng	Nala	Tswelopele	Tokologo
Count	45	15	12	11	1	6	45	6	28	6	3	2
Proportion	100%	33%	80%	92%	9%	600%	100%	13%	62%	13%	7%	4%
Initial sample from Emis (20%)	9	3	2.4	2.2	0.2	1.2	9	1	6	1	1	0
Revised Sample	9	3	3	2	0	1	9	1	6	1	1	0

Xhariep										
	Number of School	Quintile					Number of School	Municipality		
		Q1	Q2	Q3	Q4	Q5		Kopanong	Letsemeng	Mohokare
Count	8	3	5	0	0	0	8	2	3	3
Proportion	100%	38%	63%	0%	0%	0%	100%	25%	38%	38%
Initial sample from Emis (20%)	2	0.6	1	0	0	0	2	0.4	0.6	0.6
Revised Sample	3	1	2	0	0	0	3	1	1	1

Fezile Dabi											
	Number of School	Quintile					Number of School	Municipality			
		Q1	Q2	Q3	Q4	Q5		Mafofane	Moqhaka	Metsimaholo	Ngwathe
Count	39	10	12	13	3	1	39	8	13	8	10
Proportion	100%	26%	31%	33%	8%	3%	100%	21%	33%	21%	26%
Initial sample from Emis (20%)	8	2.1	2.5	2.7	0.7	0.3	8	1.6	2.7	1.6	2.1
Revised Sample	9	2	3	3	1	0	9	2	3	2	2

Thabo Mofutsanyana												
	Number of School	Quintile					Number of School	Municipality				
		Q1	Q2	Q3	Q4	Q5		Maluti a Phofung	Dihlabeng	Setsotha	Nketoana	Phumelela
Count	57	27	11	14	3	2	57	35	7	6	5	4
Proportion	100%	47.4%	19.3%	24.6%	5.3%	3.5%	100%	61.4%	12.3%	10.5%	8.8%	7.0%
Initial sample from Emis (20%)	11	5	2	3	1	0	11	7	1.4	1.2	1	0.8
Revised Sample	11	5	2	3	1	0	11	7	1	1	1	1

Source: Free State Department of Education, EMIS, 2017.

3.3.2 Data Collection

Questionnaire design and themes

The learner and teacher questionnaires and their themes was informed by the literature review of Chapter 2 as well as the current policy direction of the country e.g.

- The link between what is taught in class and how it is utilised in the real world (Hervani, 2004)
- The relatively difficulty experienced by learners in grasping the relationship between several concepts
- What creates unsatisfactory in the subject and the resulted decline in its enrolment (Kurgat, 2014)
- The two approaches to teaching, namely learner-centered and teacher-centred (Bonner, 2010), which resulted in the creation of both learner and teacher questionnaire.
- The 4th industrial revolution, specifically the infusion of technology (The country's policy)

Conducting of the Survey

The Provincial Department of Treasury sort approval from the Department of Education in the Free State province to conduct the survey on all 42 schools across

the province with the list of field workers made up of 5 officials from Economic Analysis and 3 officials from Fiscal Policy within the Provincial Treasury (see Annexure 5). These 8 officials formed 4 teams which conducted the survey on all 10 routes formed as part of the survey. Although 42 schools formed part of the sample size for the survey, only 41 schools participated in the survey as Bodibeng Secondary School chose not to participate in the survey. The reason given by the acting principal as well as the two Economics educators was that the school was not given prior notice of the survey from the district office. The survey was conducted on the following dates: 24-26 July 2018, 31 July-2 August 2018 as well as 6-8 August 2018.

Although the learner sample size was 3288, it was decided that in a particular Economics class, all learners must be given an opportunity to participate in the survey. Also, all teachers who are teaching Economics must also be given an opportunity to participate in the survey. Therefore, the learner sample size for the Economics subject survey increased from 3288 to 6292 (which is the recorded number of learner questionnaires issued), which represents 91.4 per cent more learners than the initially calculated sample size. All teachers who taught Economics were also given an opportunity to participate in the survey and the number of teacher questionnaires issued increased from 42 to 63.

The approval granted by the Department of Education stipulated that such a survey should not interfere with the normal teaching and learning sessions of the schools. The 8 field workers who conducted the survey had to drop off the learner and teacher questionnaires at the selected school on the 1st day, give the participants the 1st and 2nd day of the survey the opportunity to fill in their respective questionnaires at home, and collect the questionnaires on the 3rd day of the survey. The principals and Economics educators had to fill –in and sign the survey arrival forms on the 1st day when the teacher and learner questionnaires were dropped off, and also complete the survey collection forms on the 3rd day of the survey when both types of questionnaires were filled in. From the 6292 learner questionnaires and 63 teacher questionnaires issued, a total of 4673 learner questionnaires and 42 learner questionnaires were collected.

3.3.3 Data Analysis

Preliminary Analysis

The preliminary analysis which has been completed from secondary data sourced from DoE through EMIS, which was done from the 24th July-4th August 2017. The situational analysis focused on the curriculum taught at high schools, focusing on the Economics subject, enrolment of learners in Economics as well as pass rates of these learners from Grade 10 to Grade 12. The results of the situational analysis reveal the following information below.

Curriculum

As a minimum requirement, resources which are required to offer Economics as a subject are the responsibility of the school. Furthermore, each learner should have access to a textbook and stationery whilst a teacher of Economics should have access to:

- A variety of textbooks for referencing
- Statistics SA and SARB Quarterly Bulletin
- SA Yearbook
- SARS brochures
- Legislation, for example, the Labour Relations Act
- Business, financial and Economics magazines and newspapers
- A television set (TV) and a radio
- Internet (those with an access to internet)

There are 4 focus areas of the curriculum in relation to Economics, which are allocated a weight of 25 per cent each. These focus areas are Macroeconomics, Microeconomics, Economics Pursuits and Contemporary Issues. The table below lists the focus areas and their associated topics.

Table 3.3: Economics curriculum and associated topics

Curriculum and weighting	Topic
Macroeconomics (25%)	Economics: Basic concepts
	Basic economic problem
	Circular flow
	Quantitative elements
	Economic systems
	Business cycles
Microeconomics (25%)	Dynamics of markets
	Public sector intervention and composition of RSA economy
Economic pursuits (25%)	Economic growth and development
	Money and banking
	Population and labour force
	Labour market
	Redress since 1994
Contemporary issues (25%)	Unemployment
	Labour relations
	Globalisation
	Inflation
	Tourism
	Poverty
	Other economic issues and quantitative elements of economics

Source: Free State Department of Education, EMIS, 2017.

Furthermore, each grade has several topics which are allocated per term, building up from Grade 10 to 12.

Table 3.4: Economics topics per Grade

Term 1	Term 2	Term 3	Term 4
Grade 10 Topics			
Introduction to economics:	Dynamics of markets	Economic growth, development and globalisation	Economic issues of the day: Unemployment
Basic concepts	Production possibility curve	South African economic growth and development – historical context	Labour relations
Basic economic problem	Public sector intervention	History of money & banking	Economic Redress
Circular flow		Population & labour force	
Quantitative Elements: Production and income			
Business cycles			
Grade 11 Topics			
Factors of production and its remuneration	Relationships between markets	Poverty	Globalisation
Economic goods & services	Effects on cost & revenue on price and quantities	Money & banking	Environmental deterioration
Economic systems	Price elasticity	Economic growth and development: South Africa's role and economic importance in Africa	
South Africa's economic structures	Economic growth		
Grade 12 Topics			
Business cycles	Protectionism and free trade	Growth & development	Revision and examination preparation
Public sector	Perfect markets	Industrial development policies	
Foreign exchange markets	Imperfect markets	Economic concepts and social performance indicators	
	Market failures	Inflation	
		Tourism	
		Environmental sustainability	

Source: Free State Department of Education, EMIS, 2017.

Enrolment

The secondary data received from DoE through EMIS regarding the number of schools offering Economics from Grade 10 to Grade 12 in 2016 played a critical role in determining the sample size of the schools for the survey. The data revealed that there were 219 schools teaching Economics to Grade 10 learners in the Free State Province, 218 schools teaching the subject in Grade 11 and 219 schools teaching the subject to Grade 12 learners in the province in 2016. Therefore the average number of schools teaching Economics in the province was 219. Given that a 10 per cent sample size was chosen to Economics learners in the province, the same sample size for schools would have resulted in 1 school being chosen in the Xhariep district, which would not be sufficient to represent the views and experiences of the entire district. Therefore a 20 per cent sample size was chosen for schools which will participate in the survey, which resulted in 44 schools deemed sufficient for the survey. However,

schools which taught in Afrikaans, special schools and schools with missing data such as quintiles were excluded from the list of school which could possibly be chosen for the survey, which reduced our school sample size from 44 to 42 schools. Furthermore, during the survey, Bodibeng Secondary School chose not to participate in the survey. Although the DoE head office requested and approved the conducting of the survey, the reason given by the acting principal as well as the two Economics educators was that the school was not given prior notice of the survey from the district office. For ethical reasons, participants have free-will to decide if they want to participate in the survey. Therefore the final sample size of the schools was reduced further from 42 to 41.

Table 3.5: Number of schools offering Economics in FS in 2016

District	Grade 10	Grade 11	Grade 12	District Average	% Distribution
Xhariep	10	10	8	9	4%
Motheo	55	55	55	55	25%
Lejweleputswa	50	51	51	51	23%
Thabo Mofutsanyana	62	62	64	63	29%
Fezile Dabi	42	40	41	41	19%
Total	219	218	219	219	100%

Source: Free State Department of Education, EMIS, 2017.

The Free State DoE also provided the research team with the number of enrolled learners in Economics from Grade 10 to Grade 12 in 2016, which also determined the sample size of learners for the survey. The secondary data revealed that the total number of learners who enrolled for Economics from Grade 10 until Grade 12 is equivalent to 32 888, therefore a 10 per cent sample size would result in 3 288 Economics learners across all grades and provinces would form part of the survey. However, during the survey, it would have been difficult to distinguish which learner to allow to participate in the survey and which learner would be excluded within a classroom or grade. Therefore, all Economics learners of a chosen school for the survey were given an opportunity to participate, which increased our sample learner sample size from 3 288 (10 per cent) to 6292 (19.1 per cent).

Table 3.6: Number of learners enrolled for Economics in FS in 2016

District	Schools	Gr10	Gr11	Gr12	District Total	% Distribution
Xhariep	10	458	355	185	998	3%
Motheo	58	4 137	3 072	2 430	9 639	29%
Lejweleputswa	52	4 650	2 628	1 897	9 175	28%
Thabo Mofutsanyana	68	3 540	2 805	1 900	8 245	25%
Fezile Dabi	44	2 287	1 515	1 029	4 831	15%
Total	232	15 072	10 375	7 441	32 888	100%

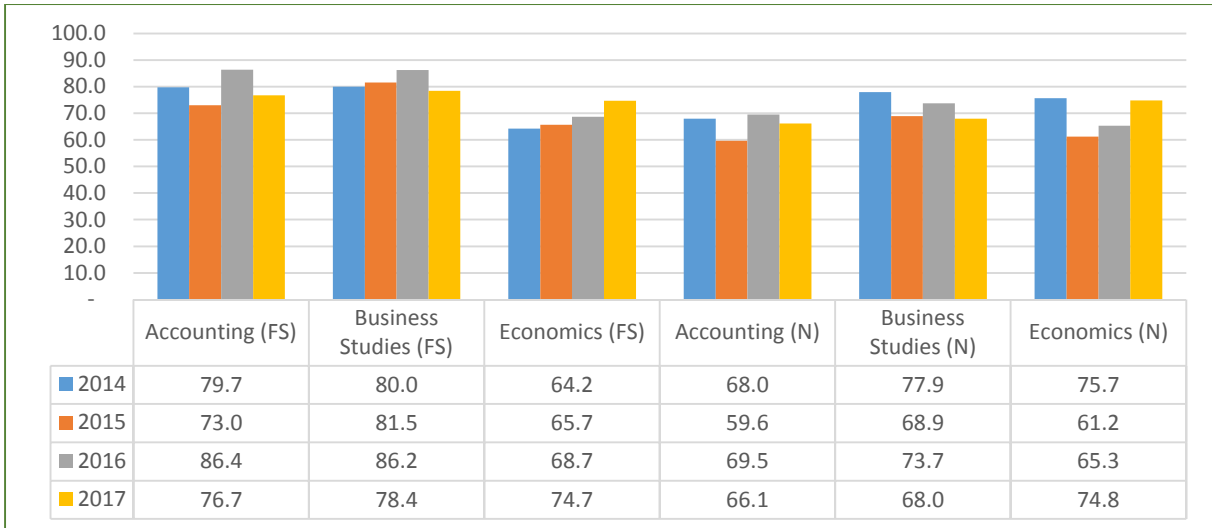
Source: Free State Department of Education, EMIS, 2017.

Grade 12 performance and pass rates

A comparison of grade 12 learner pass rates provincially and nationally across Accounting, Business Studies and Economics was necessary to determine in which subjects excel do learners excel across competing subject choices. A 4-years analysis of the preliminary data shows that although the pass rate of grade 12 learners enrolled for Economics in the Free State improved from 64.2 per cent in 2014 to 74.7 per cent in 2017, the provincial pass rate in relation to the subject was lower than the national average pass rate in 2014 and 2017. Also, in comparison to competing subjects (Accounting and Business Studies), the pass rate of Grade 12 learners in Economics in the province is lower compared to the two other subjects over the reference period with learners excelling the most in Business Studies, followed by Accounting and then Economics.

The challenges experienced in teaching and learning Economics, which have been highlighted in the literature review, may be discovered in the data analysis of the survey which will be discussed in Chapter 4 of this study. Thus far, some of the challenges identified in the literature review include the difficulty that learners experience in learning some economic concepts because of their link to several other concepts as well as the approach applied in teaching the subject.

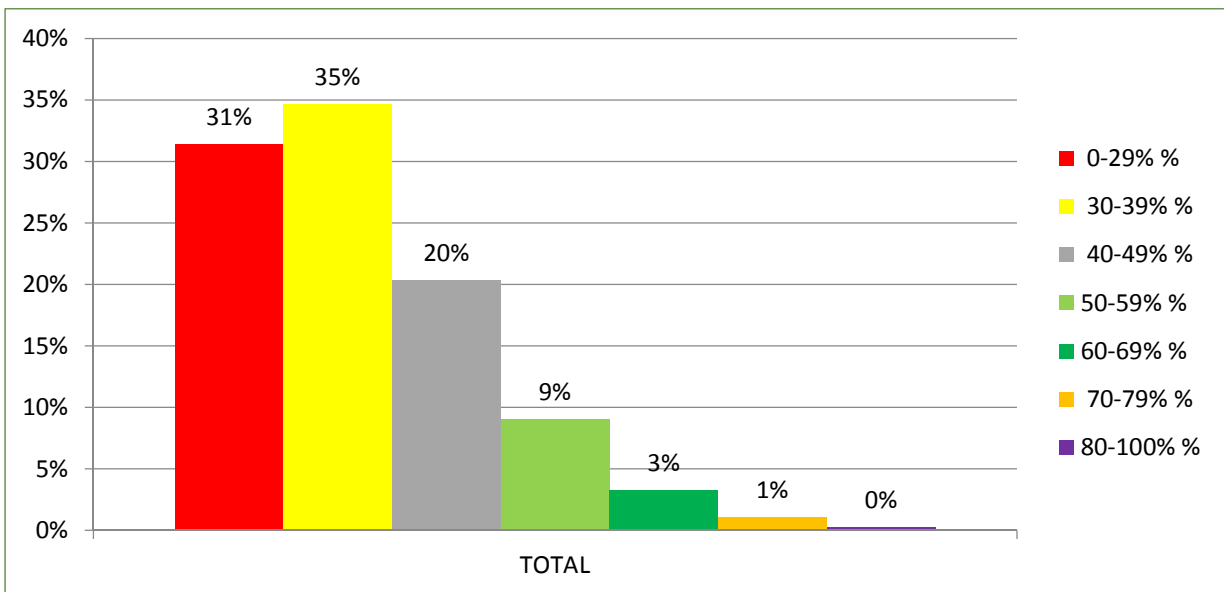
Figure 3.1: Grade 12 pass rate comparisons (FS vs National)



Source: Free State Department of Education, EMIS, 2017.

Further analysis of the provincial pass rate of Grade 12 learners in Economics in 2016 reveals that the highest percentage of learners (35 per cent) obtained marks between 30-39 per cent in the subject, which was followed by 31 per cent of learners who failed the subject with marks between 0-29 per cent whilst 20 per cent of learners obtained marks between 40-49 per cent. Therefore 86 per cent of all learners who enrolled for Economics in Grade 12 in 2016 could not obtain the 50 per cent mark in the subject.

Figure 3.2: Grade 12 pass rates in 2016 in



Source: Free State Department of Education, EMIS, 2017.

The percentage of learners who obtain higher marks dwindles with higher pass marks, with 20 out of 7084 (or 0 per cent) Grade 12 learners obtaining marks between 80-100 per cent in the subject in 2016.

Table 3.7: Grade 12 Economics Pass Rates in 2016

District	0-29%		30-39%		40-49%		50-59%		60-69%		70-79%		80-100%		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Xhariep	60	35%	57	34%	29	17%	19	11%	5	3%	0	0%	0	0%	170	2%
Motheo	778	37%	664	32%	374	18%	170	8%	73	3%	34	2%	11	1%	2104	30%
Lejweleputswa	547	34%	563	35%	316	20%	127	8%	50	3%	14	1%	3	0%	1620	23%
Thabo Mofutsanyana	496	25%	721	37%	439	22%	223	11%	62	3%	21	1%	4	0%	1966	28%
Fezile Dabi	341	28%	450	37%	280	23%	100	8%	43	4%	8	1%	2	0%	1224	17%
Total	2222	31%	2455	35%	1438	20%	639	9%	233	3%	77	1%	20	0%	7084	100%

Source: Free State Department of Education, EMIS, 2017.

Primary data analysis from the survey

The conducting of the survey

The survey of the study was conducted in a three-day period over three weeks from 24th July-8th August 2018. The Provincial Department of Treasury sort approval from the Department of Education in the Free State province to conduct the survey on all 42 schools across the province with 8 field workers made up of 5 officials from Economic Analysis and 3 officials from Fiscal Policy within the Provincial Treasury. These 8 officials formed 4 teams which conducted the survey on all 10 routes formed as part of the survey. Although 42 schools formed part of the sample size for the survey, only 41 schools participated in the survey as Bodibeng Secondary School chose not to participate in the survey. The reason given by the acting principal as well as the two Economics educators was that the school was not given prior notice of the survey from the district office. The survey was conducted on the following dates: 24-26 July 2018, 31 July-2 August 2018 as well as 6-8 August 2018.

One of the conditions given by DoE in conducting the survey was that the survey should not interrupt the teaching and learning process at schools. Therefore, all questionnaires had to be completed by the participants after school (and at home). Therefore, the field workers had to visit a school on the 1st day of the survey, allow the

Economics teacher(s) and learners two days to complete the questionnaires, and collect the completed questionnaires on the 3rd day of the survey. The number of teacher questionnaires issued were equivalent to 63, which is higher than the initial determined sample size of 42 (minimum of 1 Economics teacher per school). Although the learner sample size was 3288, it was decided that in a particular Economics class, all learners must be given an opportunity to participate in the survey. Also, all teachers who are teaching Economics must also be given an opportunity to participate in the survey. The logic applied in allowing all learners enrolled in Economics in a school to participate in the survey also applied in the case of teachers teaching the subject in those schools. Therefore the number of learner questionnaires issued increased from the determined sample size of 3 288 to 6292.

The captured data of the survey

Although the number of teacher and learner questionnaires issued were equivalent to 63 and 6292 respectively, the recorded number of teacher and learners questionnaires received, which would form part of data capturing, were equivalent to 42 and 4673 respectively. Therefore, the response rate for the teacher and learner questionnaires is 65.1 per cent and 72.3 per cent respectively.

It should be noted that 17 teacher questionnaires were identified as incompletely filled during the capturing of the data by the Data Capturers. Given that the number of teachers questionnaires collected is small at 42, there was an attempt to retrieve the missing pages/ information by means of emails. However, from the 17 teacher questionnaires, only 8 of them were retrieved successfully. Therefore, 9 teacher questionnaires from 7 different schools still need to be taken back to those schools to be completely filled. This translates to 33 teacher questionnaires which have been captured completely whilst 6 officials from Economic Analysis and Fiscal Policy have been divided into 3 teams to revisit the 7 schools from the 8th to the 10th April 2019 to ensure the 9 remaining teacher questionnaires are completely filled. The responses of the 9 teacher questionnaires will be completed in April 2019.

Also, from the 4673 learner questionnaires which were collected from the survey, 20 of these questionnaires had be discarded because they were also incompletely filled. Therefore the total number of learner questionnaires which have been captured for

analysis in Chapter 4 is equivalent to 4653. Given that the sheer number of learners who participated in the survey was large at 4673, and that it would be difficult to trace the 20 learners whose questionnaires were incompletely filled due to the participants being anonymous, the 4653 learner questionnaires captured are deemed sufficient for the data analysis.

The information captured from the teacher and learner questionnaires were mostly closed ended questions, therefore codes of the responses were created in order to facilitate the data analysis. Furthermore, a few questions within the teacher and learner questionnaires were open-ended questionnaires, which require themes of the responses to be created for the data analysis.

The data analysis of the captured data will take place after the 9 teacher questionnaires with missing information have been retrieved from the 7 affected schools from the 8th- 10th April 2019. Therefore, the data analysis will take place from 15th April-17 May 2019.

3.4 Research Rigor

Data quality assurance

The data quality assurance took place from 1st – 31st March 2019 and was necessary and critical to ensure that:

- All the responses which will form part of the data analysis is completely filled,
 - Where some teacher questionnaires were incompletely filled, it was noted.
- All the responses are accurately coded and captured,
 - Where learner questionnaires were incorrectly coded, it was rectified

Some of the challenges identified during the data cleaning process were identified as follows:

- The responses of some learners were not clear enough, which required extra time to interpret and correctly capture the data. Topics in Economics identified as numbers and not names,

- Misfiling by field workers led to the miscoding of learner questionnaire, which also wasted time in sorting out the questionnaires.

3.5 Limitations of the Research

As noted in chapter 1 of this research paper, the key limitation to the study is its exclusive focus on Economics as a school subject, and excludes much required subjects such as Accounting, Mathematics and Natural Science, within the context of a shortage of accountants in South Africa and the lower-than-needed enrolment in Mathematics and Natural Science.

Also, quality of the weekly data capturing reports were compromised in the earlier periods of the data capturing process due to the miscoding of the learner questionnaires, which was later rectified. Also, due to misfiling between learner and teacher questionnaires, the number of teacher and learner questionnaires were incorrectly captured in terms of their collection. However, this was also corrected during the data quality assurance process and the correct numbers are found the final report by the Data Capturers which include both the data capturing and data cleaning information.

3.6 Ethical Considerations

The ethical considerations implemented in the study can be broken up into two phases or periods: before the survey was conducted and whilst the survey was conducted.

Period before the conducting of the survey

- The need to gain approval from ethics committee prior to commencement of the research:

The researchers sort permission from the Free State Department of Education to conduct the study (see annexure 5) and from the principals of the sampled schools where the study was to be conducted (see annexure 3). Consent was obtained from the parents of the learners giving their permission that the children could participate in the study. Consent from the teachers to participate in the study was also be obtained.

Period during the conducting of the survey:

Learners are classified as a vulnerable group –there strict adherence to ethics was ensured. Therefore:

- Consent from participants was obtained,
- Voluntary participation and the right to decline request for participation by participants was obtained,
- Maintenance of privacy, confidentiality, anonymity and respect for human dignity of all participants was ensured.

Furthermore, all participants in the research project were be informed that the objective of the exercise is to assist government, and that all expenses will be paid for by the Free State Provincial Treasury and that there will be no financially benefits for all those that will be participating, with the exception of the Field Workers (who will be administering the questionnaire) and Data Capturers (who will capture the data and do quality assurance). Lastly, participants will be assured that the study will not pose any threat or risk, as the survey would be conducted in the normal teaching and learning environment, with questionnaires being filled after classes.

Period after the survey:

The researchers will also seek permission from officials from the Education Department who will be participating in the focus group session to audiotape the discussion and assure them that the exercise will be purely to ensure accuracy of data-capturing. To protect their identities, pseudonyms will be used for the focus group session(s). Furthermore,

- Provision of full report and executive summary to the Department of Education; and
- Disclaimers absolving the Department of Education.

3.7 Summary

The literature review of Chapter 2, as well as the current policy direction of South Africa such the 4th industrial revolution and the infusion of technology, informed the design and associated themes or focus of the learner and teacher questionnaires. Data sort

from the Free State DoE informed the Preliminary data analysis, which also contributed towards both the questionnaire design and the sampling process. From 32 888 learners listed as having enrolled for Economics in 2016, a 10 per cent sample size was chosen for the learners, which was equivalent to 3 288. The DOE also provided data which showed that the average number of schools offering Economics was equivalent to 218. If the same 10 per cent was to be utilised to inform the school sample size with a minimum of one Economic teacher participating in the research study through a survey, it would have resulted in only 22 schools participating in the survey with only one school from Xhariep. Therefore a 20 per cent sample size for the school was chosen, which equated to 44 schools forming the sample frame, although this was reduced to 42 during the sampling process.

When the survey was conducted, it was ensured that all learners enrolled for Economics from Grade 10-12 and all Economics teachers forming part of the sample had the opportunity to participate in the survey, which increased the number of learner questionnaires issued from 3 288 to 6 292 whilst the number of teacher questionnaires issued also increased from 42 to 63. However, confirmed through the data capturing and quality assurance processes, the number of teacher and learner questionnaires received back were 42 and 4673 respectively. However, 20 learner questionnaires were discarded due to incompleteness, which has resulted in the number of final number of learner questionnaires to be analysed declining from 4673 to 4653. Also, 42 teacher questionnaires will be analysed, however 9 of them remain incompletely filled and because of the small sample of teachers, field workers will revisit the 7 affected in April 2019 to complete the capturing.

Phase 2 of the research study, which include data analysis, the development of the implementation framework, as well as the recommendations and conclusions will be done in 2019/20.

Chapter 4

Leaner and Teacher Survey Results

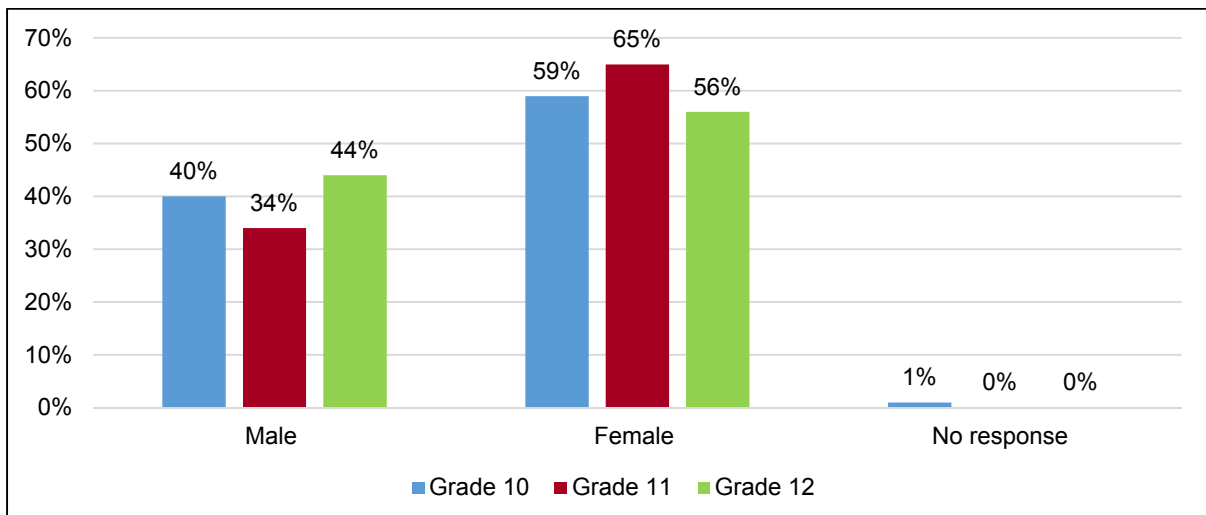
4.1 Leaner survey results data analysis

A total of 4 653 responses (2 125 for Grade 10; 1 534 for Grade 11 and 994 for Grade 12) were received after the completion of the survey for analysis. Overall the survey/questioners are sub-divided in six areas namely: leaner statistics, learning methods, attitude towards Economics, learning environment, leaner content experience as well as challenges and possible solutions.

4.1.1 Learner statistics

For Grade 10 leaners, 1 250 out of the 2 125 respondents (59 percent) were female learners and 854 (40 percent) were male. For Grade 11 leaners, 998 learners (or 65 percent) were female and 528 learners while the Grade 12 respondents were made up of 44 percent of the respondents were male and 56 percent were female.

Figure 4.1: Gender Breakdown



Source: FS Schools survey, 2018

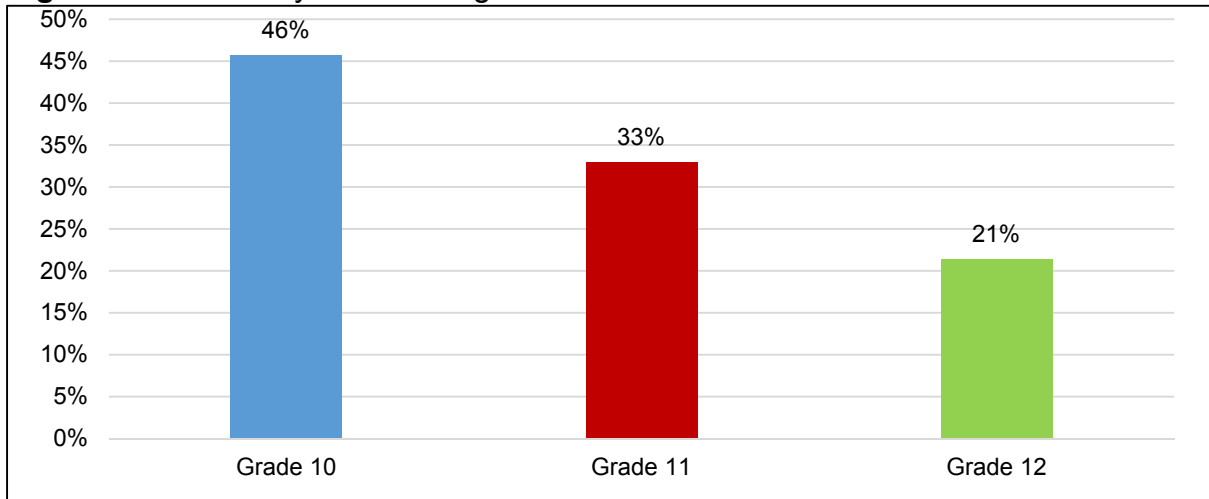
For Grade 10 learners, 80 percent of the learners were aged between 16 and 19, the youngest learners were 14 years old and the oldest were 27 years old. In the case of Grade 11, 93 percent of the learners were aged between 16 and 21. The youngest learners were 15 years of age and the oldest learner was 25 years old. In Grade 12, Majority of the learners (25.1 percent) were 18 years of age, followed by those who were 19 years of age (23.1 percent), followed by learners aged 20 years (18.7 percent), 21 years of age (10.8 percent) and 22 years of age (6.4 percent).

Table 4.1: Age analysis

Grade 10			Grade 11			Grade 12		
AGE	Frequency	Percentages	AGE	Frequency	Percentages	AGE	Frequency	Percentages
27	4	0 percent	25	1	0 percent	28	1	0 percent
23	4	0 percent	24	5	0 percent	25	2	0 percent
22	13	1 percent	23	11	1 percent	24	7	1 percent
21	35	2 percent	22	44	3 percent	23	23	2 percent
20	85	4 percent	21	91	6 percent	22	64	6 percent
19	257	12 percent	20	228	15 percent	21	107	11 percent
18	429	20 percent	19	258	17 percent	20	186	19 percent
17	553	26 percent	18	368	24 percent	19	230	23 percent
16	473	22 percent	17	371	24 percent	18	250	25 percent
15	118	6 percent	16	111	7 percent	17	86	9 percent
14	3	0 percent	15	3	0 percent	16	1	0 percent
No			No			No		
Response	151	7 percent	response	43	3 percent	response	37	4 percent

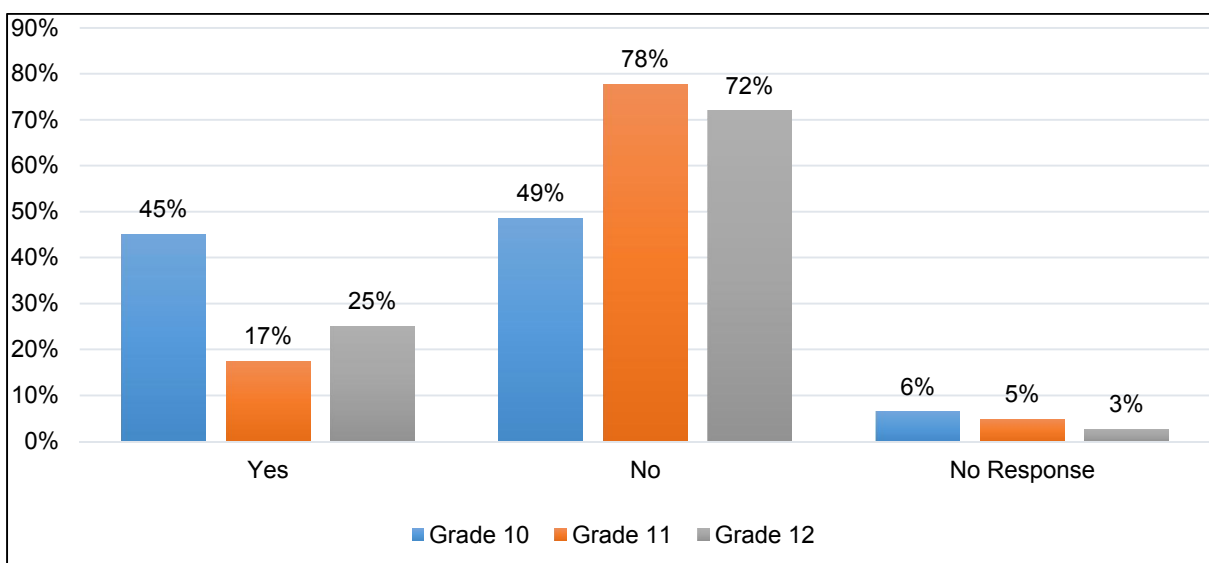
Source: FS Schools survey, 2018

The total sample of the study is 4 653 learners, from that total, 46 percent of the learners are in Grade 10, followed by 33 percent in Grade 11 and 21 percent in Grade 12.

Figure 4.2: What is your current grade?

Source: FS Schools survey, 2018

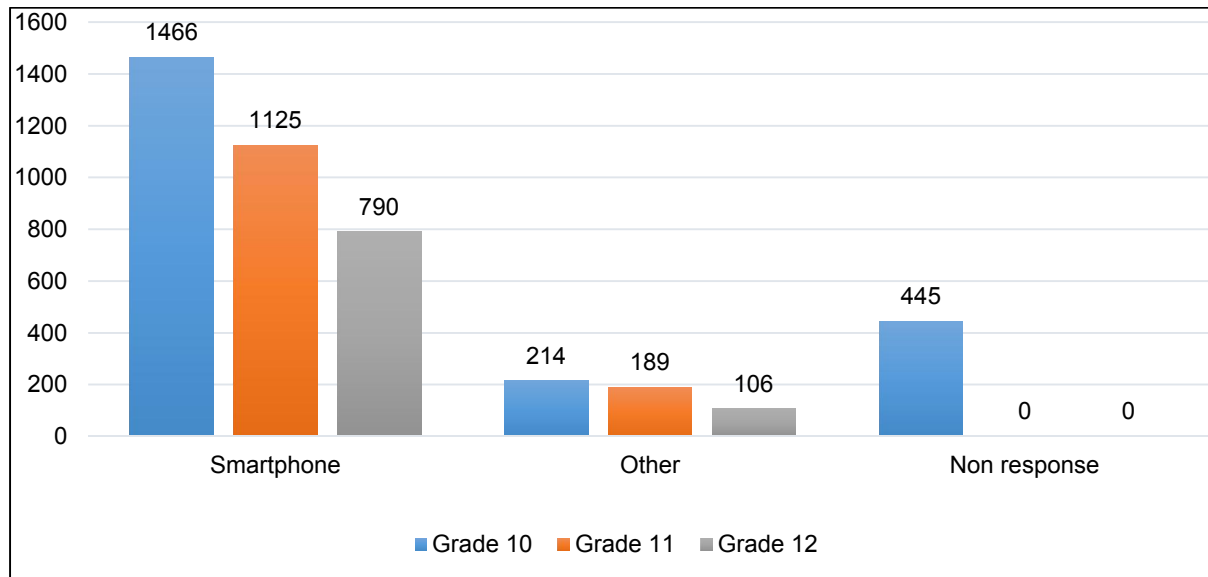
Figure 4.3 shows the number of learners who progressed from their previous to the current grade. Progression is generally referred to as condoning of learners to next grade without having met promotion requirements. In the case of Grade 10, about 45 percent of the learners said they were progressed, while 49 percent said they were not progressed. For Grade 11, 17 percent of the learners said they were progressed, in contrast 78 percent said they were not progressed. As for Grade 12, 25 percent of the learners said they were progressed, while 72 percent said they were not progressed.

Figure 4.3: Were you progressed to this grade?

Source: FS Schools survey, 2018

Figure 4.4 shows the number of learners who possess smartphones. Across all grades the majority of respondents owned smartphones, however, a significant number in Grade 10 (214), Grade 11 (189) and Grade 12 (106) did not own smartphones, and a total 445 respondents in Grade 10 did not give any response to the question.

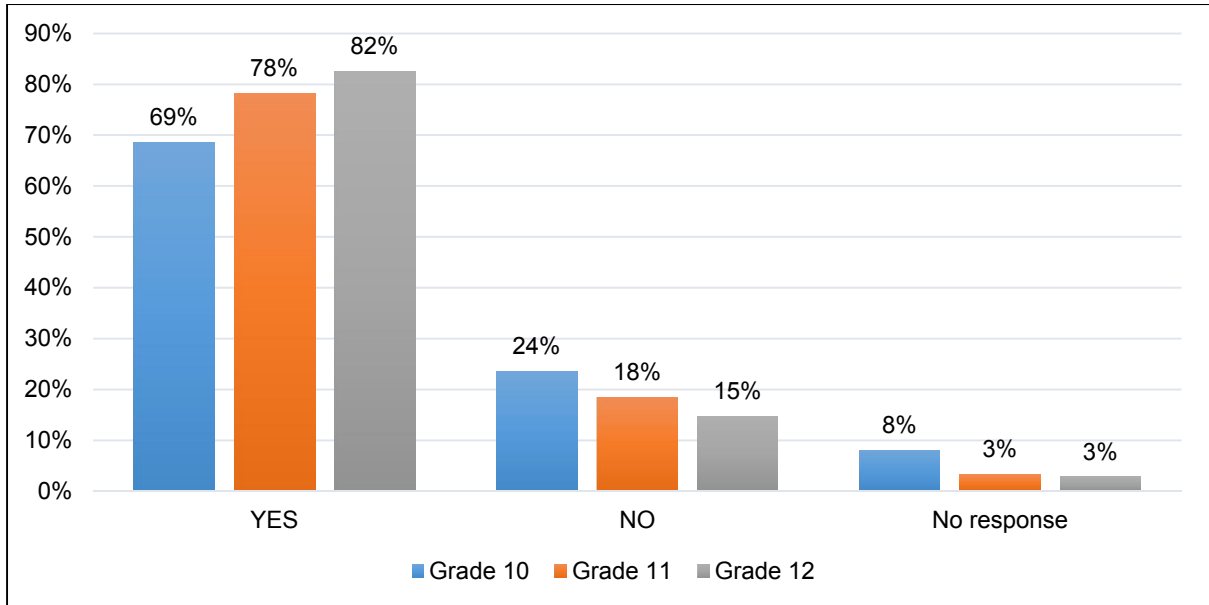
Figure 4.4: What type of cell phone do you own?



Source: FS Schools survey, 2018

Figure 4.5 depicts the number of learners who have internet access. The majority of learners have agreed to have internet access. For instance, 82 percent of Grade 10 learners have access to the internet while 24 percent do not. For Grade 11, 78 percent of the learners have access to the internet and 18 percent do not. And in Grade 12, 82 percent of the learners have access to the internet and 15 percent do not.

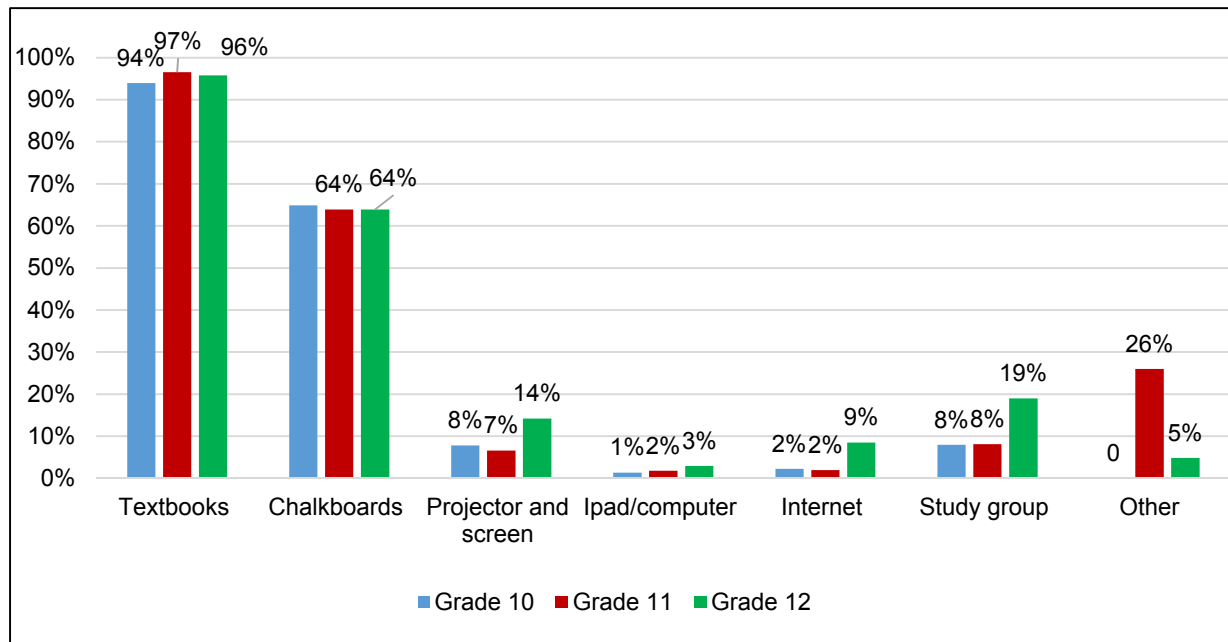
Figure 4.5: Do you have access to the internet?



Source: FS Schools survey, 2018

4.1.2 Learning Methods

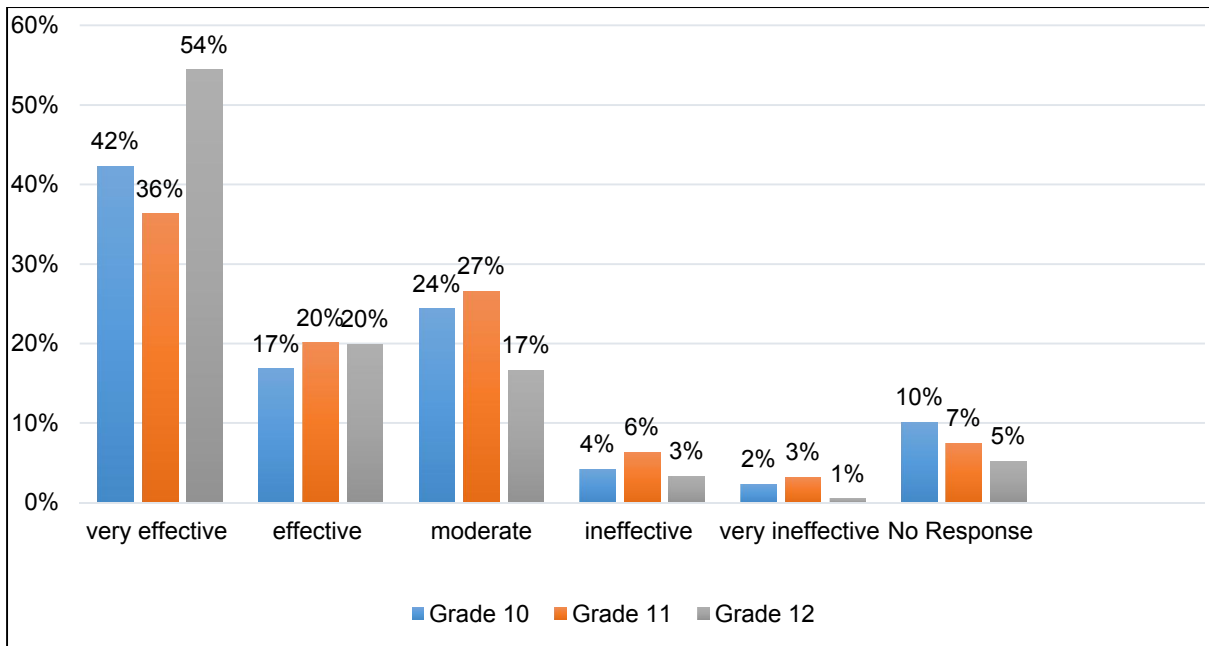
Figure 4.6 shows the various tools used by teacher to transfer Economics knowledge to learners. For Grade 10 learners, 94 percent of them identified the use of textbooks as the primary tool used for teaching Economics and 65 percent them also cited chalkboard as another popular method used by teachers. For Grade 11, respondents identified textbooks (97 percent) as the primary tool for teaching Economics, followed by chalkboards 64 percent and other tools at 26 percent. For Grade 12: 96 percent of the respondents identified textbooks as the primary tool, followed by Chalkboards at 64 percent. Significant numbers for the use of Study groups (19 percent), Projector and Screen (14 percent) and the internet were also recorded.

Figure 4.6: Which of the following tools does your teacher use to teach Economics?

Source: FS Schools survey, 2018

In Figure 4.7, learners rate the effectiveness of transferring Economics knowledge by teachers. For Grade 10, majority of the learners (42 percent) found their teachers to be 'very effective' in transferring Economics knowledge for their understanding, while 27 percent found the transfer to be moderate and 2 percent found the transfer to be very ineffective. In the case of Grade 11, about 36 percent of the learners found the transfer of economic knowledge to be very effective from the teachers, 27 percent rated the transfer as moderate and 3 percent said the knowledge transfer was ineffective. As for Grade 12 learners, 54 percent of them rated the transfer of economic knowledge to be very effective, while 27 percent rated the transfer as moderate and only 1 percent said the knowledge transfer was very ineffective.

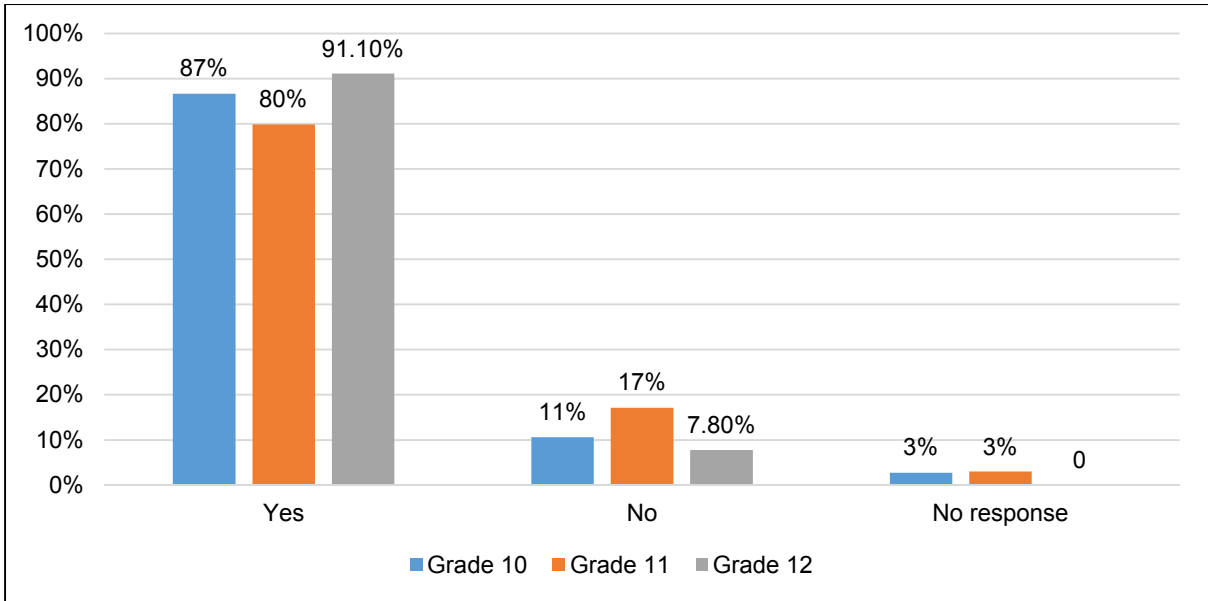
Figure 4.7: How effective is your teacher in transferring Economics knowledge for your understanding?



Source: FS Schools survey, 2018

Figure 4.8 shows whether the teacher provides feedback to a learner. A majority of learners across all grades said “yes” the teacher gave them feedback with clear explanations on their school work. In Grade 10, the largest proportion of the respondents (89 percent) mentioned that the Economics teacher does give feedback with clear explanations on their school work. Grade 11 respondents said that in 80 percent of cases they received feedback from the teacher. For Grade 12, 91.1 percent of the learners said that they receive feedback from the teacher with clear explanations, followed by 7.8 percent of the learners who said “no” and there were 1.0 percent of no responses.

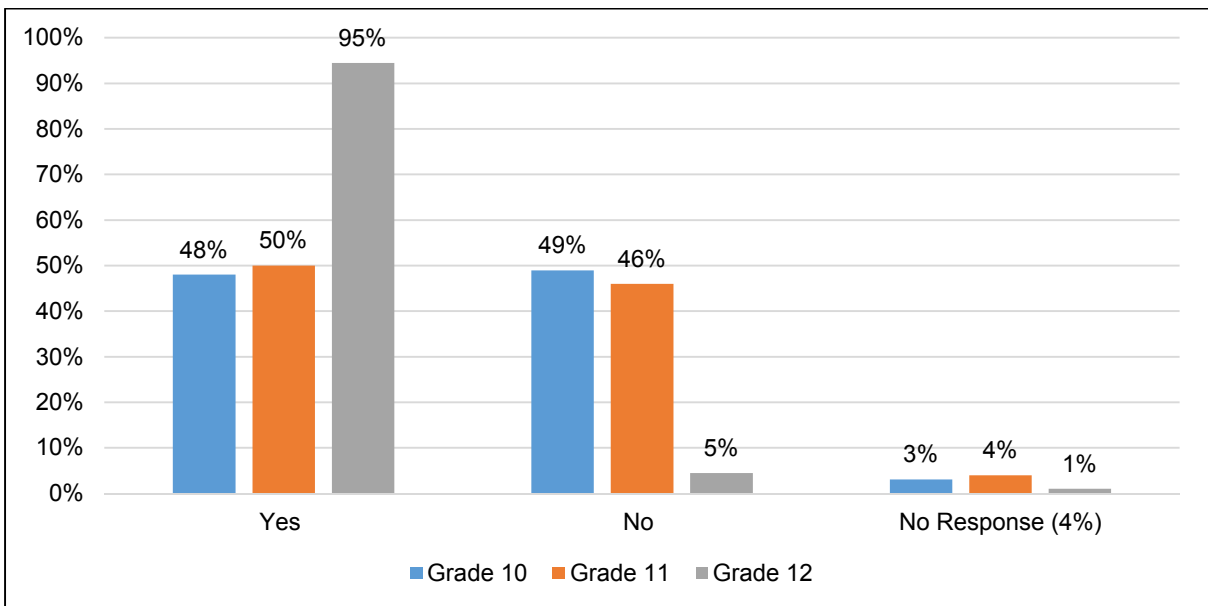
Figure 4.8: Does your Economics teacher give you feedback with clear explanations on your school work?



Source: FS Schools survey, 2018

Figure 4.9 shows whether learners, if provided, do make use of extra classes. For Grade 10, there is an equal split between those who attend extra classes and those who don't, 48 percent and 49 percent respectively. For Grade 11, 50 percent said yes they attended extra classes and 46 percent said no they did not. And for Grade 12, 94.5 percent of the learners attended extra classes, followed by 4.5 percent of the learners who did not attend extra classes and there were 1.0 percent of no responses.

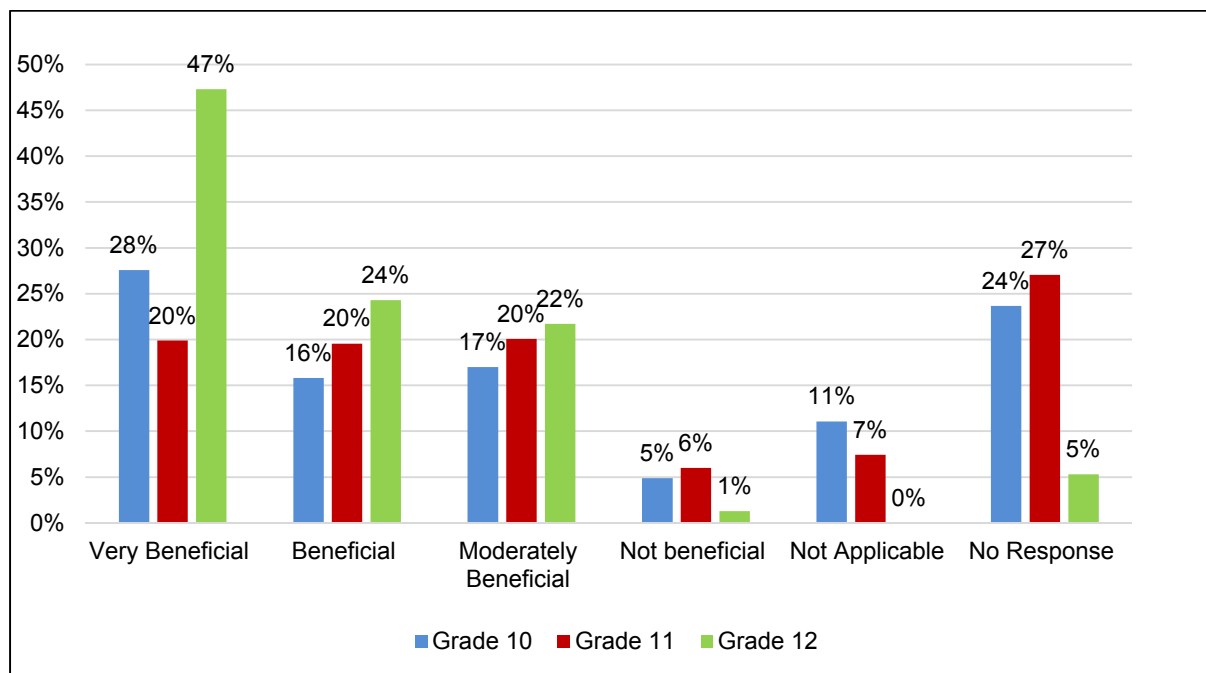
Figure 4.9: Do you attend extra classes?



Source: FS Schools survey, 2018

In Figure 4.10, learners respond to the question of how beneficial extra classes are in understanding of Economics. Around 61 percent of Grade 10 respondents found extra classes to be either very beneficial, beneficial or moderately beneficial to their performance in Economics and 5 percent said the extra classes were not. For Grade 11, there was an equal split between extra classes being 'very beneficial' 20 percent, 'beneficial' 20 percent and moderately beneficial '20', whilst only 6 percent of the responded said it was not beneficial. For Grade 12, 47 percent majority said the extra classes are very beneficial to their Economics performance and only 1 percent gave a rating of not beneficial

Figure 4.10: How beneficial are extra classes to your performance in Economics?

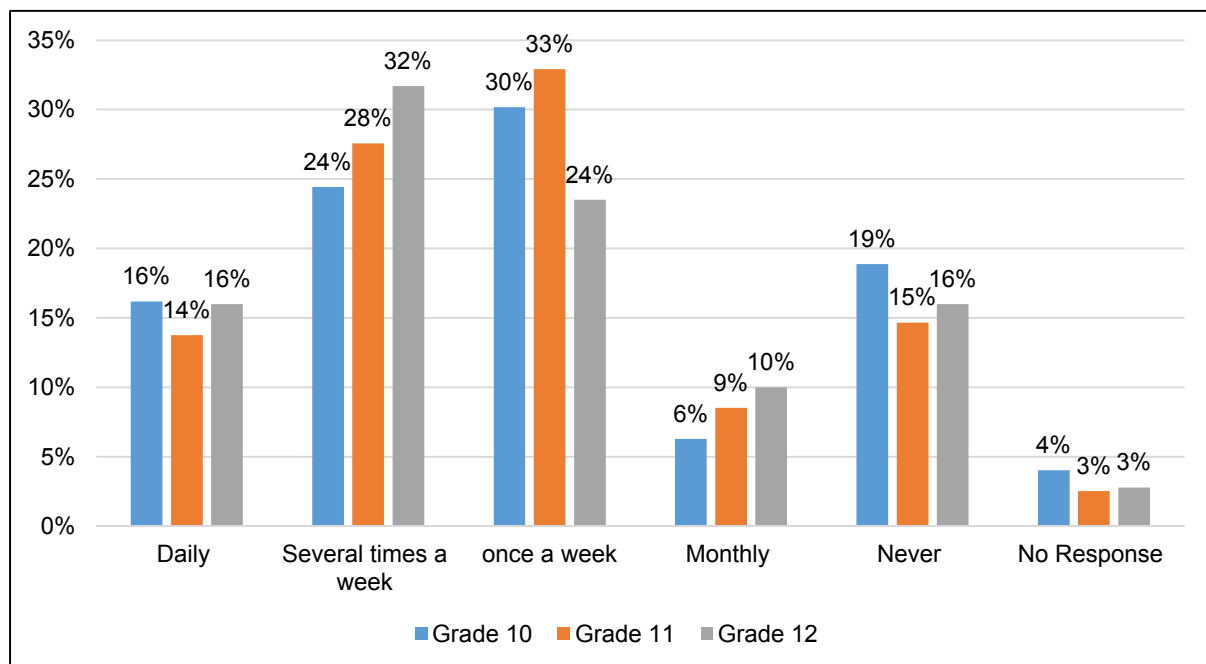


Source: FS Schools survey, 2018

In the question below, learners were asked to mention how often they read Economics books, journals, magazines and newspaper. For Grade 10, majority of the respondents said they read Economics related material once a week (30 percent), followed by several times a week (24 percent) and daily (16 percent). In contrast, 19 percent respondents said they never read such material. For Grade 11, a majority of the respondents read Economics related material once a week (33 percent), followed by several times a week (28 percent) and (16 percent) daily. In contrast 15 percent said

they never read such material. For Grade 12, 31.7 percent of the students read these material several times a week, followed by 23.5 percent of the students who read these material once a week, followed by 16.0 percent of the learners who read these material daily and who never read these material, followed by 10.0 percent of the learners who read these material monthly and followed by 2.8 percent of no response.

Figure 4.11: How often do you read Economics books, journal, magazines and newspapers other than your Economics textbook?

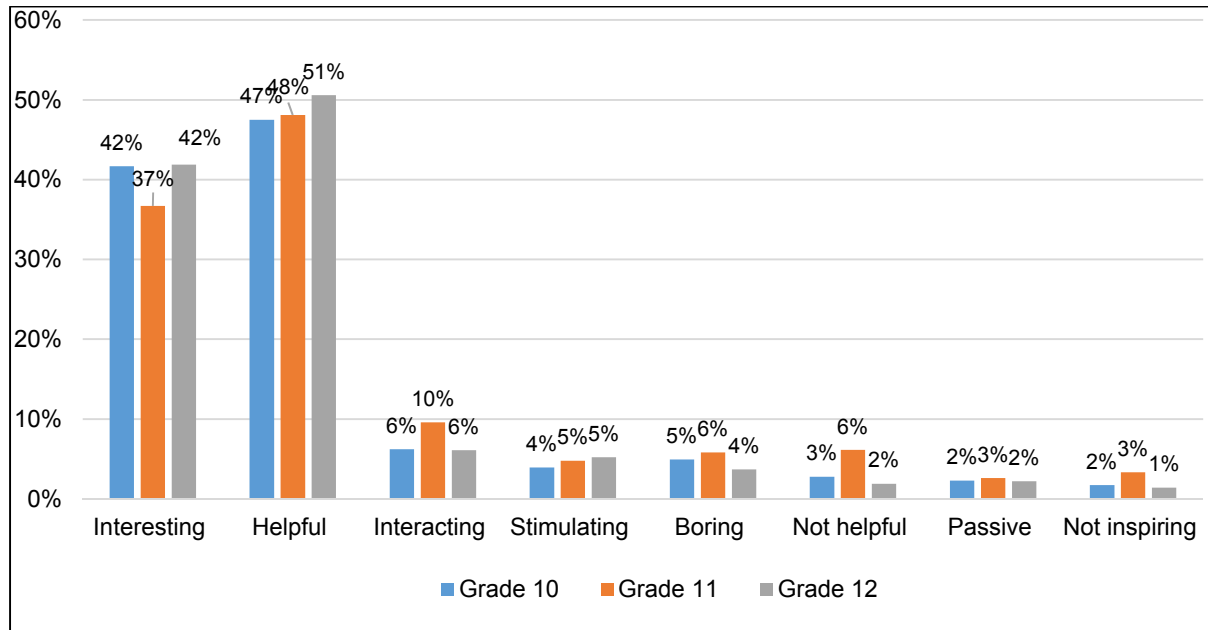


Source: FS Schools survey, 2018

Figure 4.12 depicts how learners describe their teachers' methods. Respondents across all grades said their teacher's methods of teaching were helpful, followed closely by interesting. In Grade 10, large proportion of about 1 009 respondents (47 percent) described the teacher's methods of textbooks and chalk/whiteboard boring, while 886 respondents (42 percent) said it is interesting. In Grade 11, most learners (48 percent) described their teacher's method as helpful, 37 percent saw it as interesting. This is followed by 6 percent of learners who thought that the teaching method was boring and not helpful. The remainder of the learners found to be stimulating (5percent), while 3 percent experienced it to be passive and not inspiring. 41.9 percent of the learners cited that the teacher's methods of teaching Economics were interesting, 50.6 percent of the learners stated that teacher's methods of teaching

were helpful, 6.1 percent of the learners stated that the teacher's methods of teaching were interacting, 5.2 percent of the learners mentioned that the teacher's methods of teaching were stimulating, 3.7 percent of the learners revealed that teacher's methods of teaching were boring.

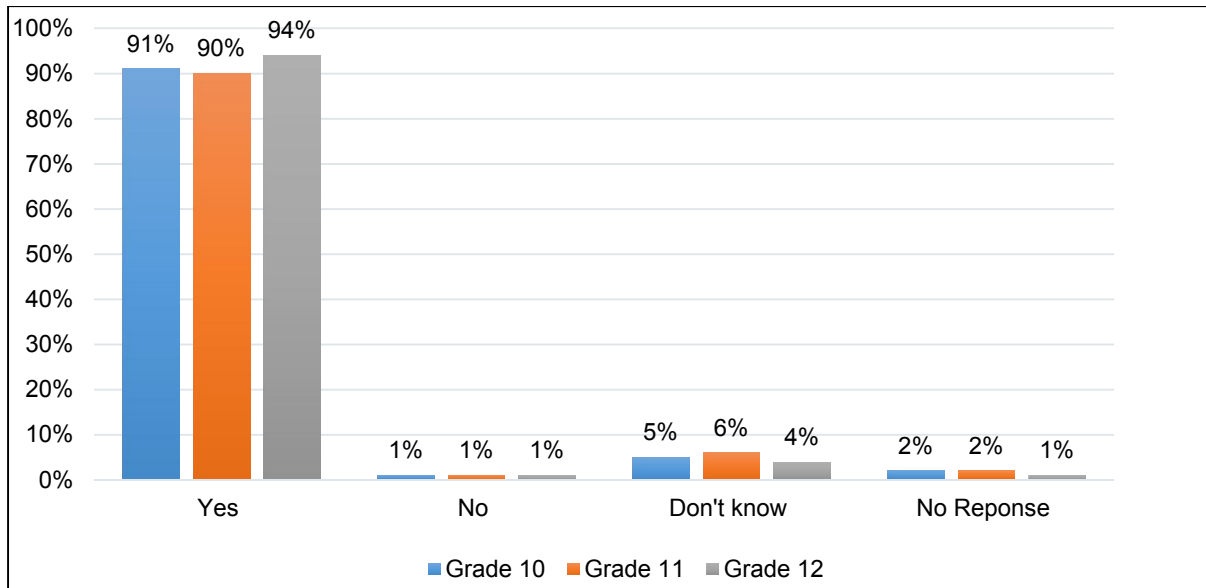
Figure 4.12: How would you describe your teacher's methods of teaching Economics?



Source: FS Schools survey, 2018

4.2.3 Learner attitude towards Economics

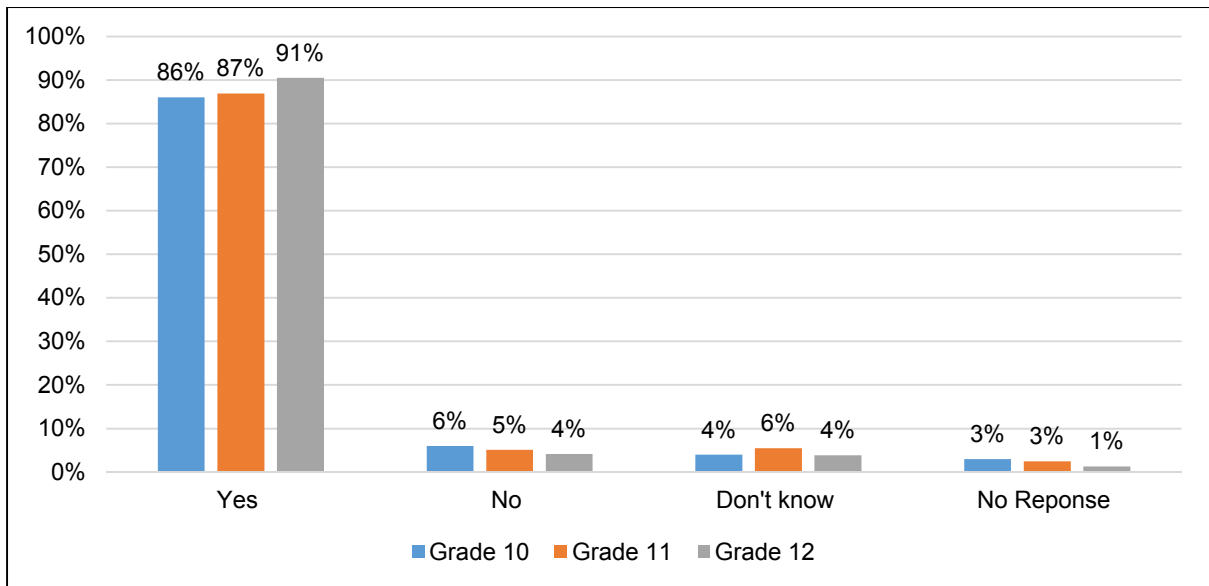
In Figure 4.13 learners respond to the question of whether do they think learning Economics is important. About 1 940 (91 percent) of the respondents thought that learning Economics is important, while 114 (5 percent) said they don't know if learning Economics is important. In Grade 11, 1 385 or 90 percent of respondents said 'yes' meaning that they think learning Economics is important while 21 learners or 1 percent said did not think so. 94 learners or 6 percent did not respond. For Grade 12, 94.1 percent of the sampled learners thought that learning Economics was important, 3.6 percent of this sample do not know, 1.3 percent of this sample thought that learning Economics was not important and 1.0 percent of no responses.

Figure 4.13: Is learning Economics important?

Source: FS Schools survey, 2018

On Figure 4.13 learners were asked whether they looked forward to attending classes. Most of the Grade 10 respondents (1 848 or 86 percent) said they looked forward to attending Economics classes. Only 121 (or 6 percent) respondents indicated that they were not looking forward to attending Economics classes. In Grade 11, 1 331 or 87 percent of learners said they were looking forward to attend Economics class while 5 percent said they did not. 85 learners or 6 percent of sampled learners did not know what say about the subject. With regard to Grade 12, 90.5 percent of the learners in this survey said they were looking forward to attend Economics classes while 4.2 percent of the learners said they were not looking forward to attend Economics classes, 3.9 percent of learners did not know and 1.3 percent of no responses.

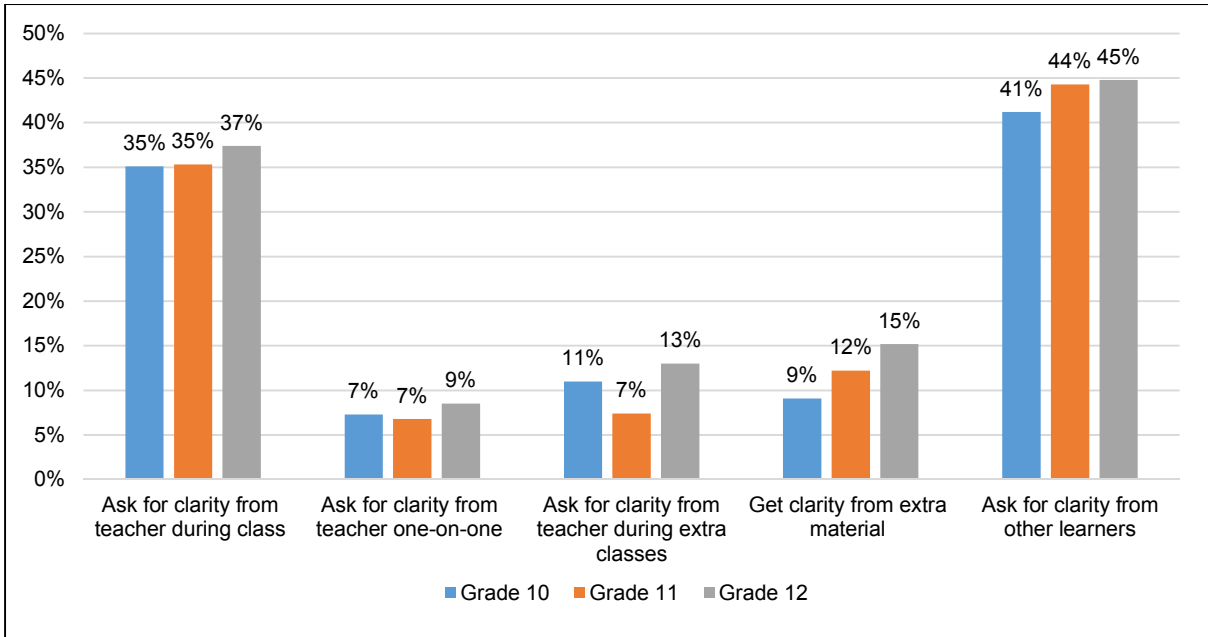
Figure 4.13: Do you look forward to attending Economics classes?



Source: FS Schools survey, 2018

In Figure 4.14 learners were asked what they will do when they don't understand a concept in Economics. Grade 10 answered as follows, 41 percent of them said they will ask clarity from other learners, while 35 percent said will ask clarity from the teacher during the class. It is only few respondents 7 percent who shy away from asking during class, and ask for clarity from teacher on one-on-one. In Grade 11: 44 percent of learners said they will ask for clarity from other learners when they do not understand a concept. Another 35 percent said they will ask clarity from the teacher during class while 7 percent of learners said they will ask for clarity from the teacher on one-on-one basis or during extra classes.

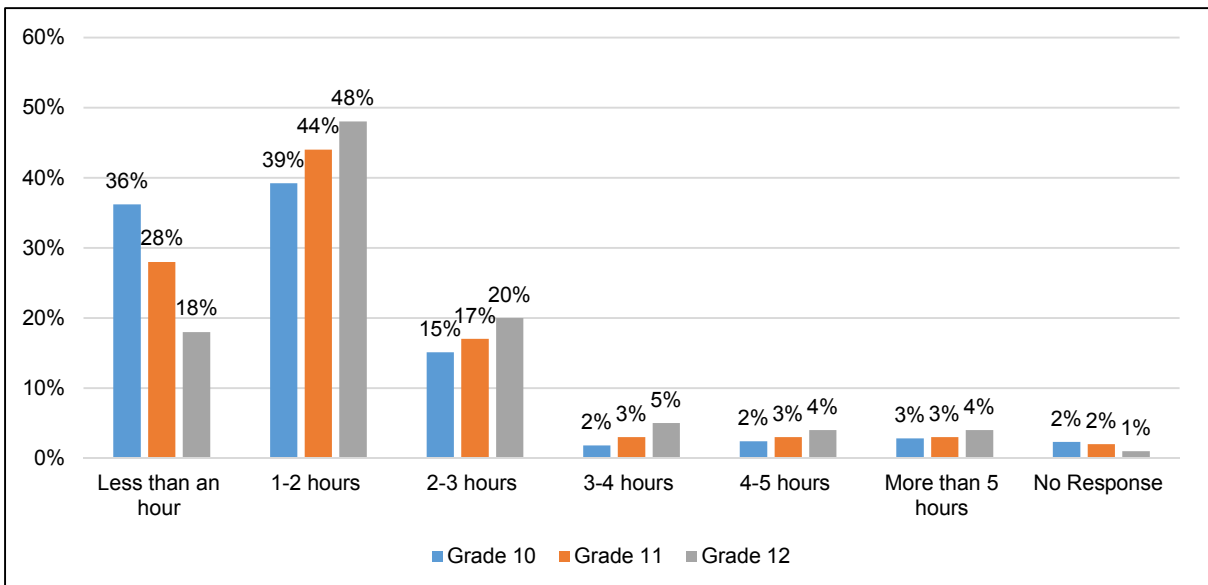
Figure 4.14: What do you do when you don't understand a concept in Economics?



Source: FS Schools survey, 2018

From Figure 4.15, when asked how much time the respondents spent on Economics homework, Grade 10 responded as follows: 36 percent said 45 minutes is enough for them. Most of the respondents (39 percent) spent 1 to 2 hours per week studying Economics. Only 3 percent spent more than 5 hours per week on studying Economics.

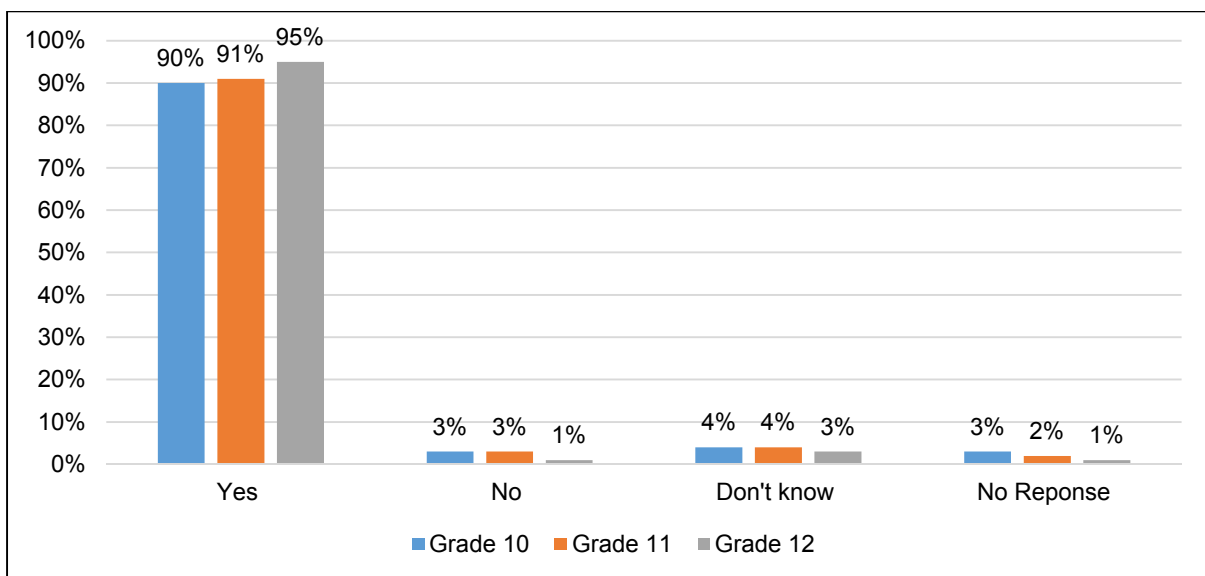
Figure 4.15: How much time do you spend studying Economics per week, including homework?



Source: FS Schools survey, 2018

In Figure 4.16, when asked if they will attend extra classes when offered, the three grades answered as follows: Grade 10 - large proportion of the respondents (90 percent) would attend extra classes if offered. Only few said they would not attend extra classes, while 4 percent were not sure whether they would attend or not. Grade 11 - 91 percent said they will attend, 3 percent said they will not attend and the 4 percent did not know if they will attend. Grade 12 - 94.6 percent of the respondents would attend these classes, 2.8 percent did not know, 1.4 percent said that they would not attend these classes while 1.2 percent of the respondents did not provide answer.

Figure 4.16: If extra classes are offered, would you attend them?



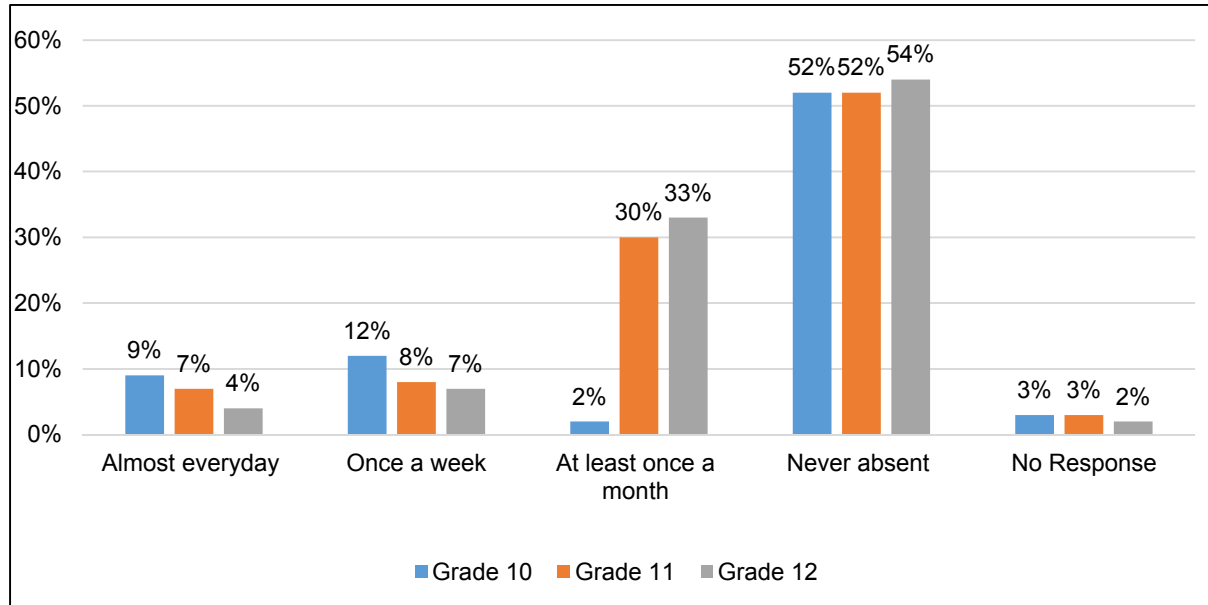
Source: FS Schools survey, 2018

4.4 Learning Environment

Figure 4.16 deals with school attendance by teachers, in Grade 10: About 53 percent of the respondents indicated that their Economics teacher was never absent from work, while 7 percent said their Economics teacher was absent from work almost every day. For Grade 11: 52 percent say their teacher is never absent from work. A total of 30 percent say their teacher is absent at least once a month, 8 percent say he/she is absent once a month while 7 percent said their teacher is absent almost every day. In Grade 12: 53.8 percent of the learners indicated that the teacher was never absent, followed by 33.4 percent of the learners cited that the teacher was absent at least once a month, followed by 7.3 percent of the learners showed that the teacher was absent

for once a week, followed by 3.8 percent of the learners declared that the teacher was absent almost every day, while finally, 1.6 percent of no responses.

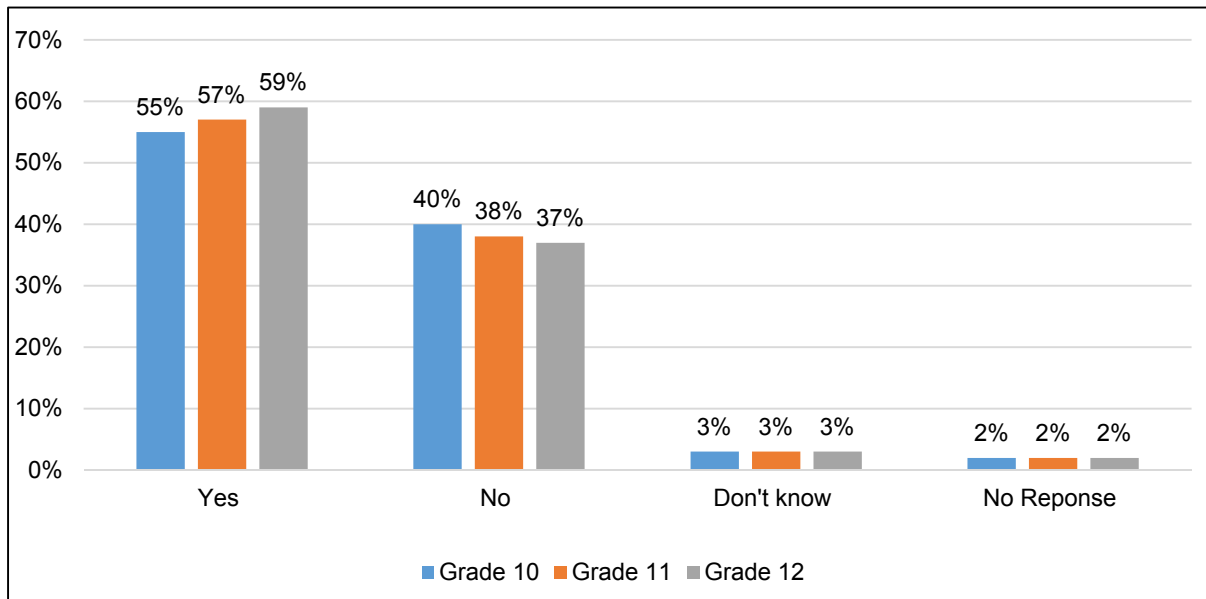
Figure 4.16: How often is your Economics teacher absent from work?



Source: FS Schools survey, 2018

In Figure 4.16 learners were asked if they felt comfortable asking questions in class. In Grade 10: About 56 percent of the respondents felt comfortable asking questions in class, whereas 38 percent were not comfortable because other learners laugh at them. In Grade 11: 57 percent learners were comfortable with asking questions in class when they did not understand, followed by 38 percent learners who mentioned that they were not comfortable. In Grade 12: 59.1 percent learners were comfortable with asking questions in class when they did not understand, followed by 36.7 percent who mentioned that they were not comfortable.

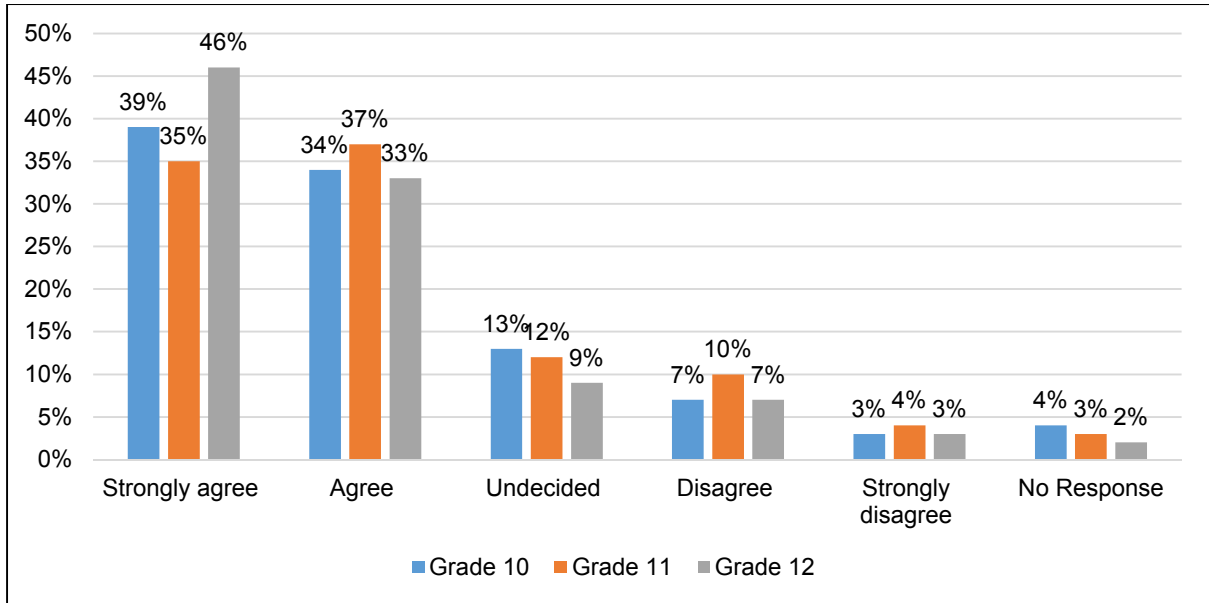
Figure 4.16: Do you feel comfortable asking questions in class when you do not understand the content?



Source: FS Schools survey, 2018

In Figure 4.17 learners were asked if the educator teaches with the good pace. Grade 10: 39 percent (834) of the respondents strongly agree that the Economics teacher moved at a good pace, only 3 percent (61) strongly disagree. About 273 respondents were undecided about the pace. In the case of Grade 11: Majority (530 or 35 percent) of the learners strongly agreed that the teacher moves at a right pace, 566 or 37 percent also agreed that the teacher moves at a suitable pace. However, 150 (10 percent) and 60 (4 percent) learners disagreed while 187 learners or 12 percent could not decide. In Grade 12: 45.7 percent of the learners strongly agree that the teacher moved at a good pace when teaching Economics, trailed by 33.4 percent of the learners who agreed, followed by 9.4 percent of the learners who were undecided, followed by 6.9 percent of the learners who disagreed, followed by 3.1 percent of the learners who strongly disagree while, lastly 1.5 percent of no responses.

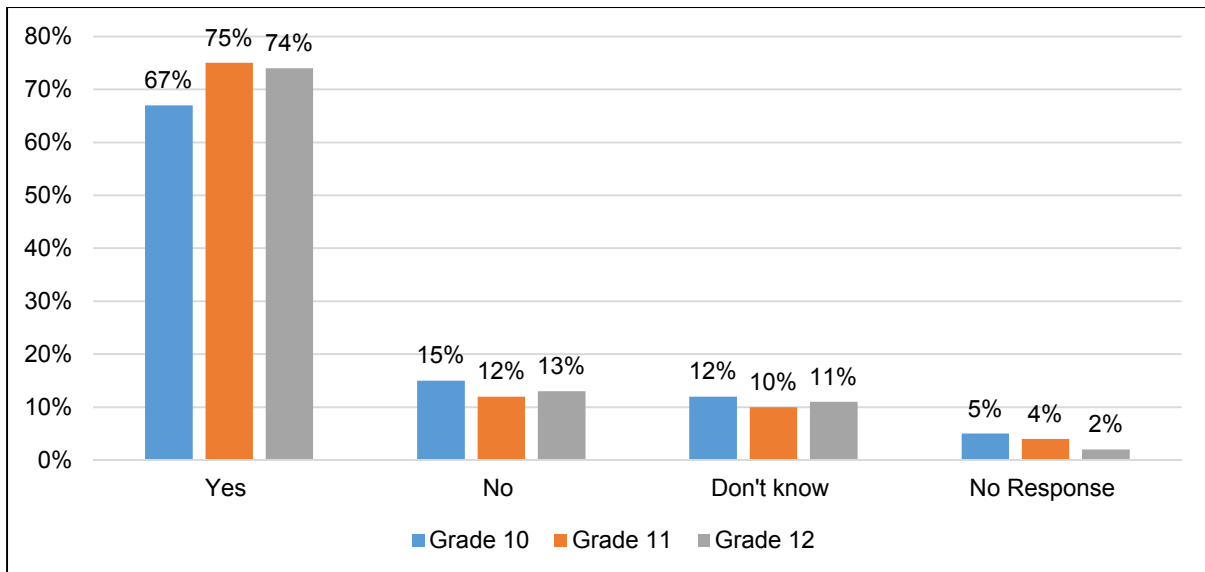
Figure 4.17: The Economics teacher moves at a good pace (not too fast, not too slow)



Source: FS Schools survey, 2018

From Figure 4.18, learners were asked if they are is technologically savvy, most of the respondents were comfortable in using modern technology and IT equipment for learning Economics. About 67 percent of Grade 10 learners said they were comfortable in using modern technology and IT equipment for learning Economics and 15 percent said they were not comfortable while 12 percent indicated that they were not sure if they are comfortable. On subsequent grades more learners were comfortable with using modern technology, for example 75 percent of Grade 11 learners and 74 percent of Grade 12 learners said they were comfortable with modern technology. However, the share of learners who said that they were not comfortable with modern technology and those who did not know how to respond to the question was approximately 13 percent across all three grades.in Grade 12, 73.7 percent of the learners were comfortable in using ICT, followed by 13.1 percent of the learners who were not, followed by 11.2 percent of the learners who indicated that they do not know and 2.0 percent of no responses.

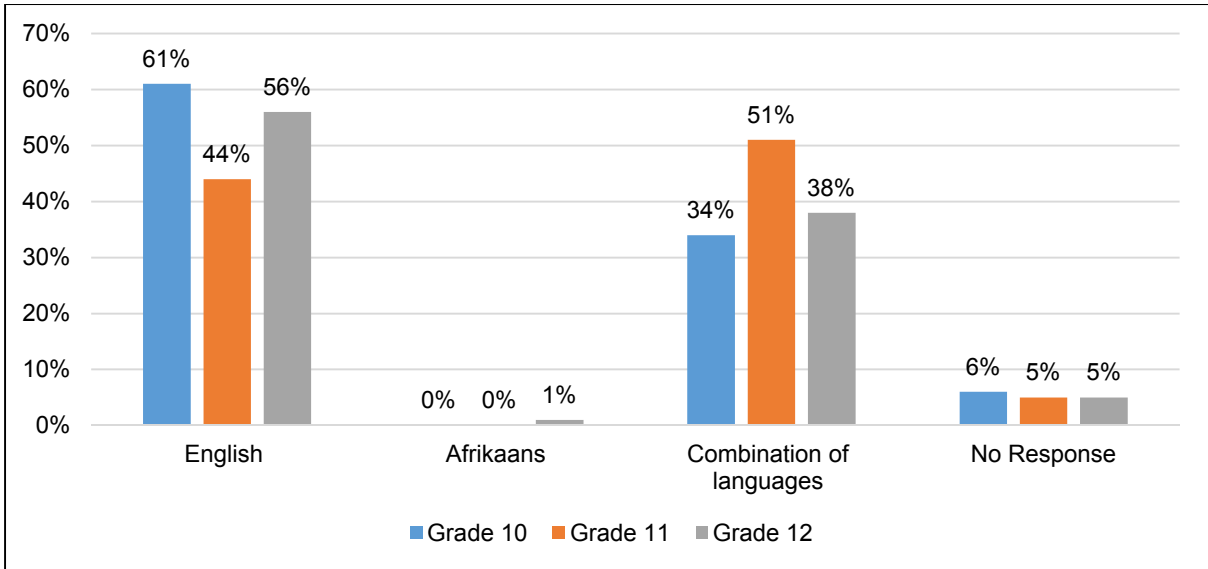
Figure 4.18: Are you comfortable in using modern technology and IT equipment for learning Economics?



Source: FS Schools survey, 2018

In Figure 4.19 language of instruction was assessed. Learners were asked which language the teacher uses in teaching Economics. In Grade 10, about 61 percent of the respondents indicated that the teacher used the English as a medium of instruction, while 34 percent said the teacher used the combination of languages. Grade 11: 44 percent of the learners said the teacher is using English to teach, 51 percent indicated that the teacher is using the combination of languages. Only a handful of learners (6 or 0 percent) said the teacher uses Afrikaans whereas 5 percent of the learners did not respond to the question. For Grade 12, 55.8 percent of the learners mentioned that the teacher is using English to teach Economics, followed 38.4 percent of the learners indicated that the teacher is using the combination of language in teaching the subject, followed by 4.6 percent of no responses and 1.1 percent of the learners who said the teacher was using Afrikaans as a language to teach Economics.

Figure 4.19: Which languages does your teacher use to teach Economics?

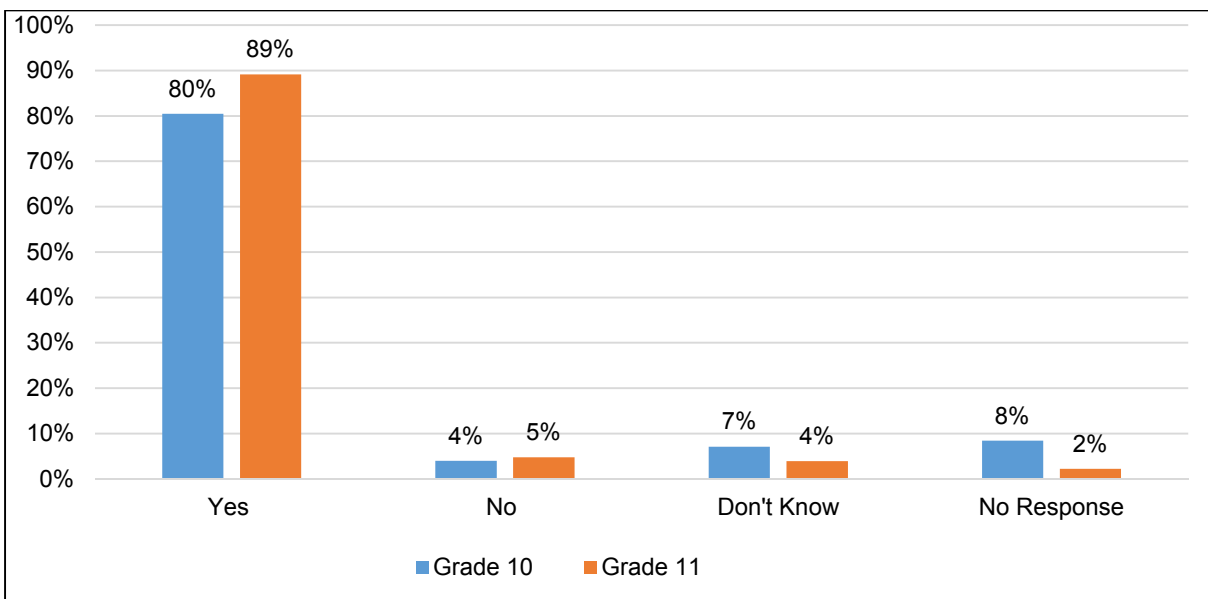


Source: FS Schools survey, 2018

4.5 Learner Content Experience

In Figure 4.20 learners were asked if they will take Economics up to Grade 12 and they responded as follows: 80 percent of Grade 10 learners said they will take Economics up to Grade 12, whereas 4 percent said they won't. And 7 percent said they do not know. For Grade 11, 89 percent say they will take Economics up to Grade 12 while 5 percent indicated otherwise.

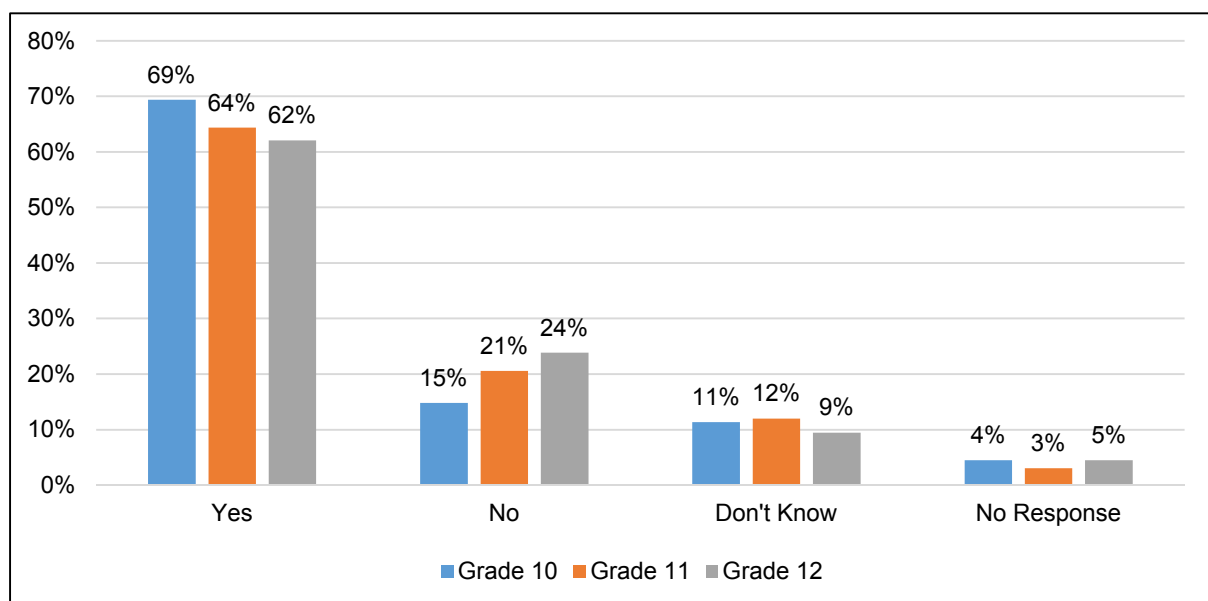
Figure 4.20: Will you take Economics up to grade 12?



Source: FS Schools survey, 2018

When asked if they will follow a career path related to Economics, learners responded as follows: 69 percent of Grade 10 said they would follow a career path related to Economics and 15 percent said will not while 11 percent were undecided. For Grade 11, 64 percent said they would follow a career path related to Economics and about 21 percent said they will not while 12 percent were undecided. For Grade 12: 62 percent said they would follow a career path related to Economics and about 24 percent said they will not while 5 percent were undecided.

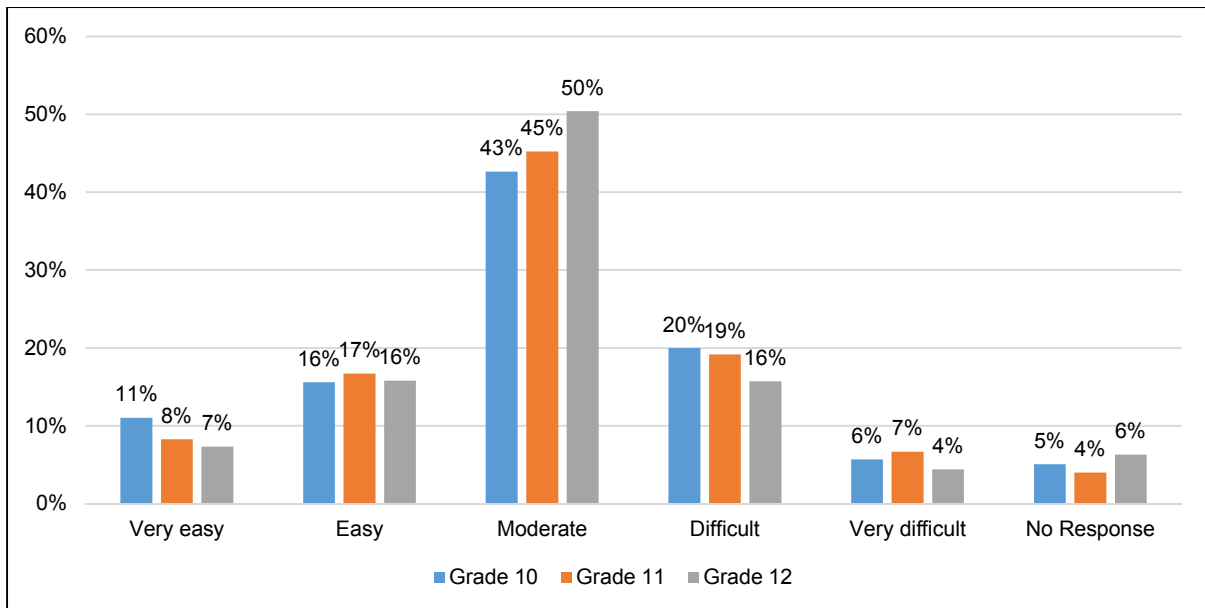
Figure 4.21: Would you follow career path in Economics?



Source: FS Schools survey, 2018

Figure 4.21 summarises the responses of learners regarding the level of difficulty in learning Economics. For Grade 10: 20 percent of learners found Economics to be difficult while majority (43 percent) found it to be moderate (reasonable) and 25 percent said it was easy. For Grade 11, 19 percent said its difficult while majority (45 percent) found it to be moderate (reasonable) and 17 percent said it is easy. For Grade 12: 16 percent of learners found Economics to be difficult while majority (50 percent) found it to be moderate (reasonable) and 16 percent said it is easy. About 5 percent of the learners did not respond.

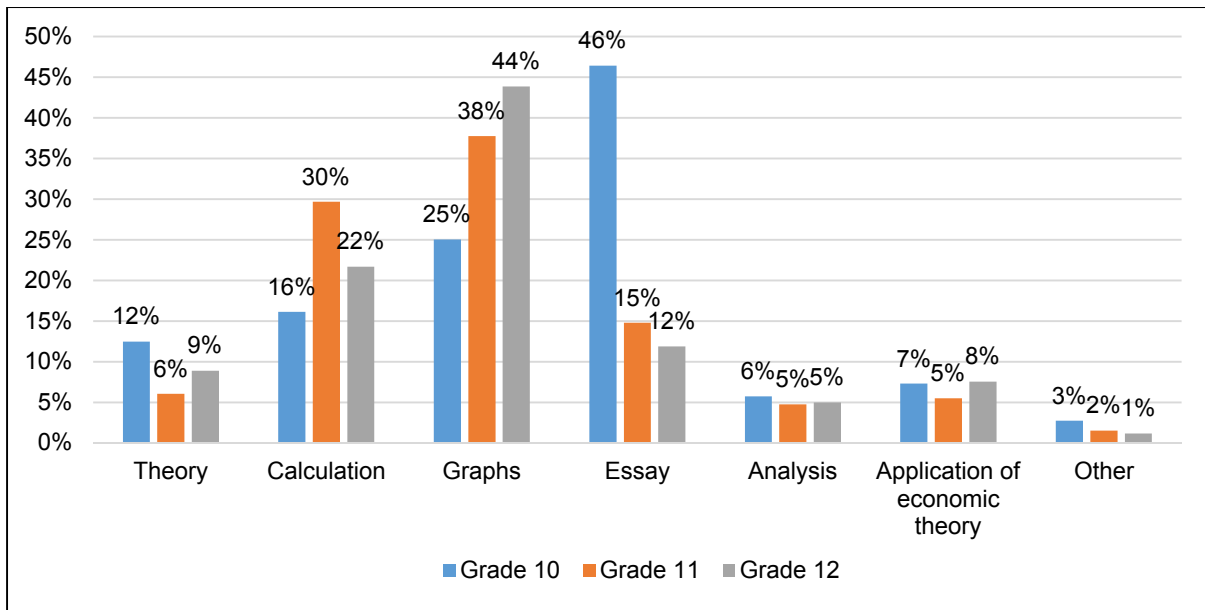
Figure 4.21: Level of difficulty in learning Economics



Source: FS Schools survey, 2018

In Figure 4.22 participants were asked to indicate the most difficult part of Economics. In Grade 10: 12 percent of learners said the most challenging part of Economics is Theory, 16 percent said Calculations and 25 percent said Graphs while a majority of 46 percent of the learners highlighted Essays as the most challenging part. For Grade 11: 6 percent of learners said the most challenging part of Economics is Theory, 30 percent said Calculations, 38 percent said Graphs, 15 percent said Essays while 5 percent mentioned Analysis and Application of theory. In Grade 12: majority of the learners (44 percent) found Graphs as the most challenging part, followed by Calculations (22 percent) and Essays (12 percent)

Figure 4.22: What is the most challenging part of Economics?



Source: FS Schools survey, 2018

Table 4.2 summarises topics which were, according to participants, the most difficult. In Grade 10, learners mentioned Production Possibility Curve (PPC), business cycle and circular flow. In Grade 11, learners indicated dynamics of markets, elasticity and development Economics as the most challenging concepts. In Grade 12, learners highlighted dynamics of markets, foreign exchange markets and inflation as the most difficult topics in learning of Economics.

Table 4.2: List of three (3) most difficult topics to understand

Grade 10	Grade 11	Grade 12
Production Possibility Curve	Dynamics of markets	Dynamics of markets
Business cycle	Elasticity	Foreign exchange markets
Circular flow	Development Economics	Inflation

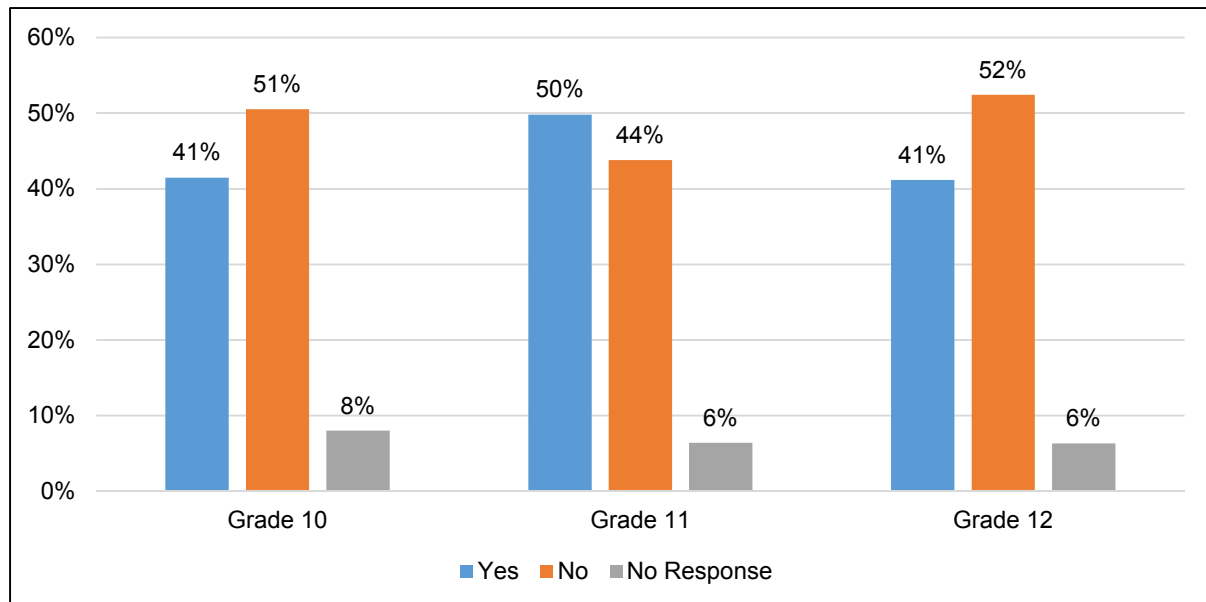
Source: FS Schools survey, 2018

4.6 Challenges

Figure 2.23, learners were asked to indicate whether there is a shortage of Economics teachers in their school and they responded as follows: 41 percent of Grade 10 learners said that there was a shortage of Economics teachers while 51 percent indicated the opposite. In Grade 11: 50 percent of the learners said that there was

shortage of Economics Teachers while 44 percent said there is no shortage. For Grade 12: 41 percent of the learners said that there was shortage of Economics Teachers while 52 percent said there is no shortage.

Figure 4.23: Is there shortage of Economics teacher at your school?



Source: FS Schools survey, 2018

On this question, learners asked to list challenges they face in Economics learning environment. Grade 10 respondents indicated the main as shortage of textbooks, disruption from other learners and the use of Economics jargon by their teachers. In Grade 11, learners highlighted the shortage of textbooks, disruption from other learners and negative attitude from teachers. In Grade 12, learners complained about the shortage of textbooks, disruption from other learners and cold classrooms during winter.

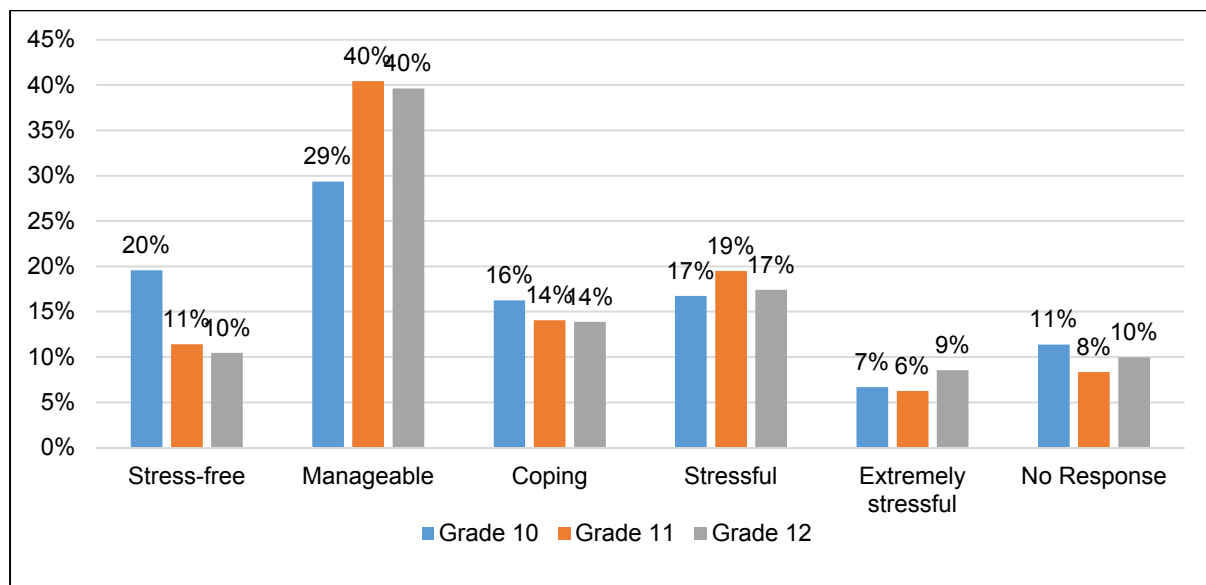
Table 4.3: List of three (3) most difficult topics to understand

Grade 10	Grade 11	Grade 12
Shortage of textbooks	Shortage of textbooks	Disruption from other learners
Disruption from other learners	Disruption from other learners	Shortage of textbooks
Economics Jargon	Teacher`s attitude	cold classes during winter season

Source: FS Schools survey, 2018

In Figure 2.24 were asked to indicate amount of work in Economics compared to other subjects. While majority (29 percent, 40 percent and 40 percent in Grade 10, 11 and 12 respectively) of the respondents rank the work load as manageable, some still find it extremely stressful. For example, In Grade 10: 17 percent of the learners said the work load is stressful and another additional 7 percent said it was extremely stressful. In Grade 11: 19 percent said it was stress while the additional 6 percent said it extremely stressful. Likewise, in Grade 12: 17 percent said it was stress while the additional 9 percent said it was extremely stressful.

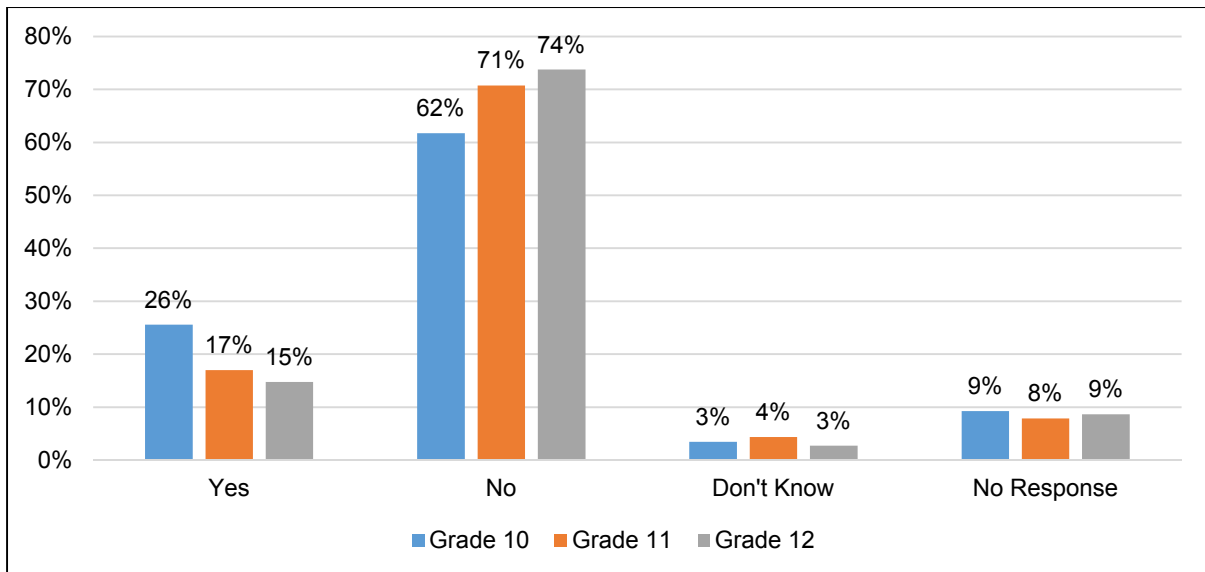
Figure 4.24: How is the amount of work in Economics compared to your other subjects?



Source: FS Schools survey, 2018

In Figure 4.25 learners were asked if the language used in teaching makes it difficult to understand. Majority of the learners said that the language used to teach Economics did not make it difficult. However, 26 percent of Grade 10, 17 percent of Grade 11 and 15 percent Grade 12 said that the language used teach makes it difficult for them to understand Economics.

Figure 4.25: Do you think the language used to teach Economics makes it difficult for you to understand the subject?



Source: FS Schools survey, 2018

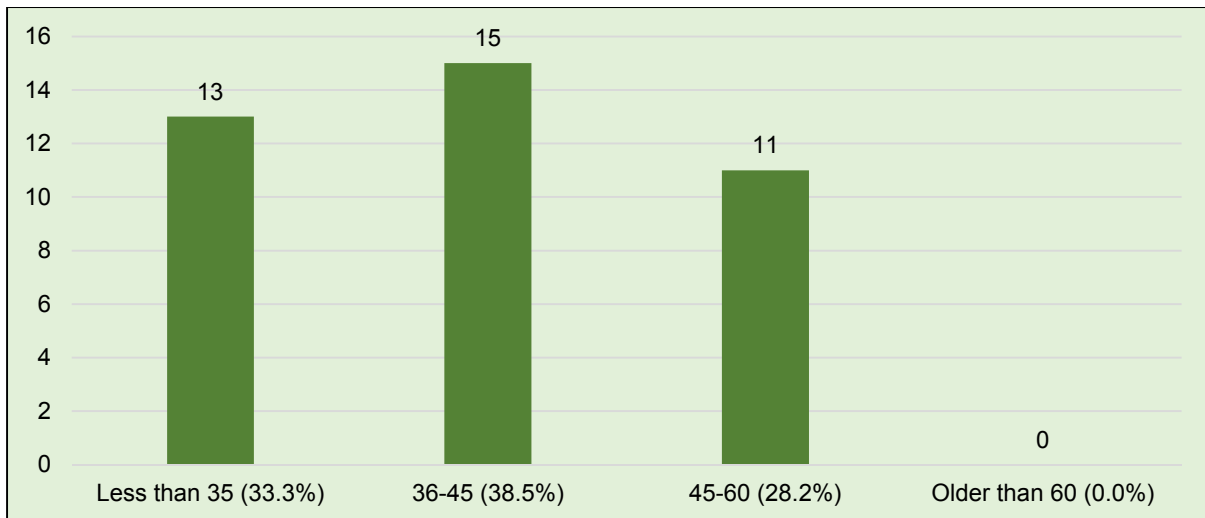
4.2 Teacher survey results data analysis

This section provides an overview of the characteristics of the teachers teaching Economics in the sample size. These include gender, population groups, age, country and province of origin and many more. Sixty-three teacher questionnaires were issued to the 41 schools across all the districts of the Free State Province. However, 42 of these questionnaires were received back by the Provincial Treasury and 3 questionnaire had to be discarded due to incompleteness, therefore 39 teacher responses form part of the analysis

4.2.1 Teacher statistics

The number of respondents are almost spread evenly across most categories, with the highest number of respondents aged between 36-45 years (38.5 percent), followed by the age cohort "less than 35 years" (33.3 percent) as well as the age cohort "between 45-60 years" (28.2 percent). There are no respondents who are aged above 60 years of age.

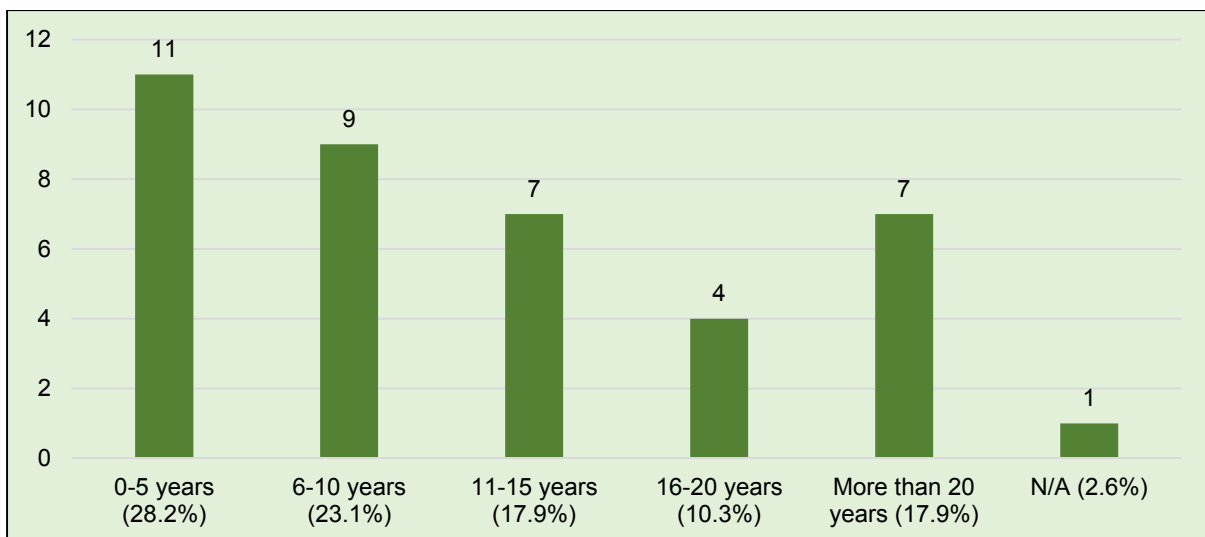
Figure 2.26: Please indicate your age category



Source: FS Schools survey, 2018

The largest portion of the respondents (28.2%) have been teaching Economics the least amount of years (0-5 years), which is followed by 23.1% of the respondents who have been teaching the subject for 6-10 years. Therefore half of the respondents have been teaching the subject for 10 years of less. On the contrast, 17.9% of the respondents who have been teaching the subject for more than 20 years, which forms part of the other half that has been teaching Economics for more than 10 years.

FIGURE 2.27: How long have you been teaching Economics?

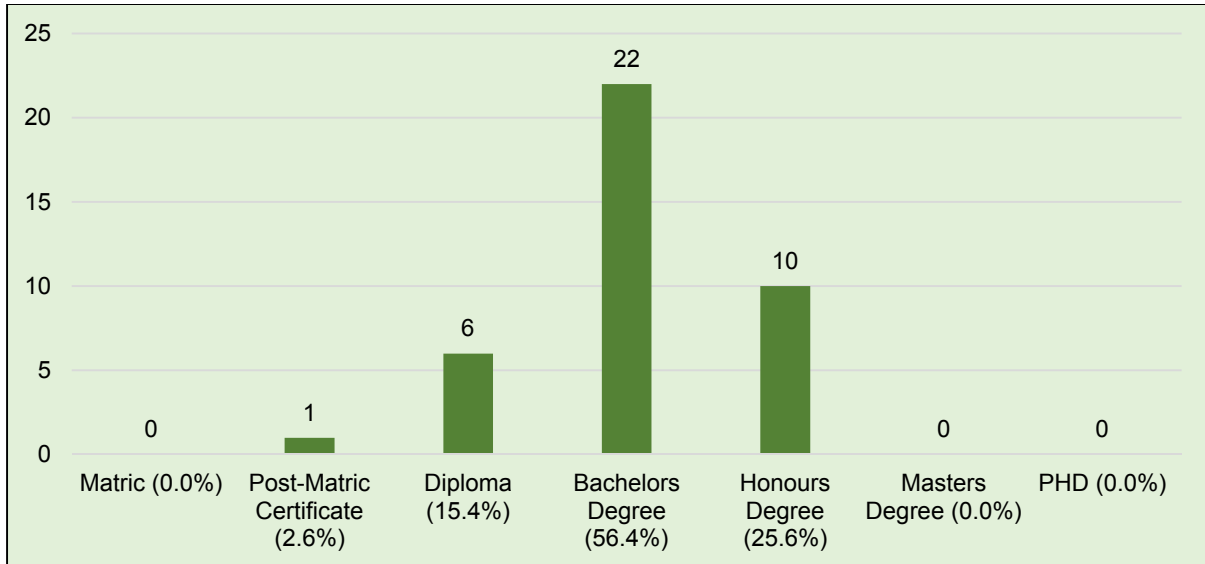


Source: FS Schools survey, 2018

All participants who teach Economics have a post-matric qualification. Over half of the respondents have a Bachelor's Degree (56.4%), followed by those who have obtained

an Honours Degree (25.6%) and a Diploma (15.4%). Participants who have a Post-Matric Certificate are equivalent to 2.6% whilst there is no respondents who have a Master's Degree or PHD.

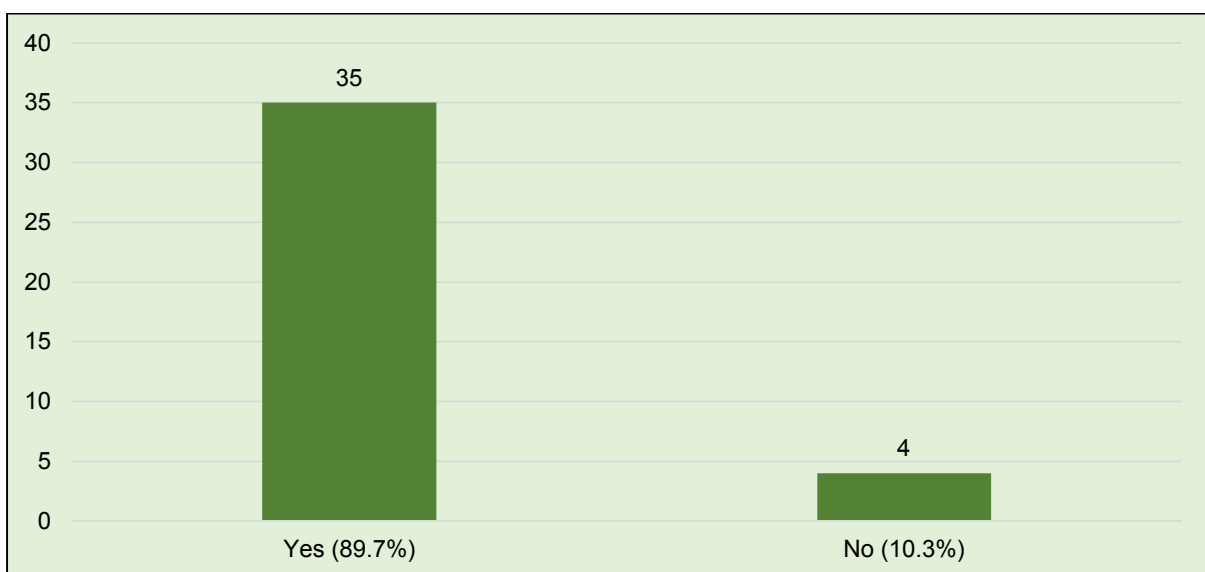
FIGURE 2.28: What is your highest qualification?



Source: FS Schools survey, 2018

89.7 percent of the respondents had Economics as a major subject for teaching Economics whilst 4 did not have the Economics as a major subject.

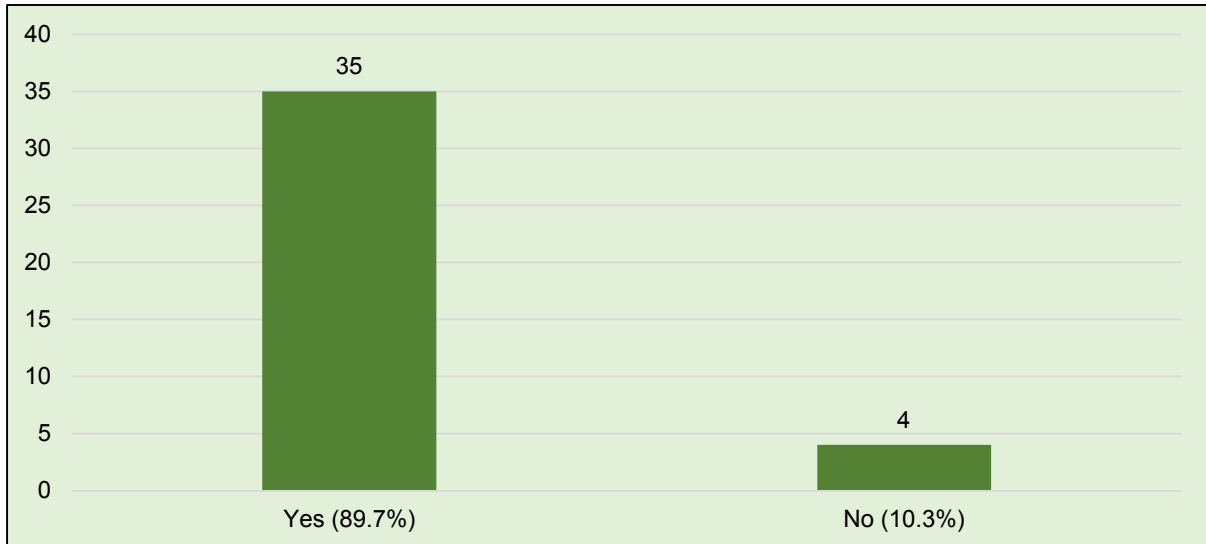
FIGURE 2.28: Was Economics one of your major subjects for teaching Economics?



Source: FS Schools survey, 2018

Also, 89.7 percent completed a course in Economics subject didactics whilst 4 of the respondents did not complete this course.

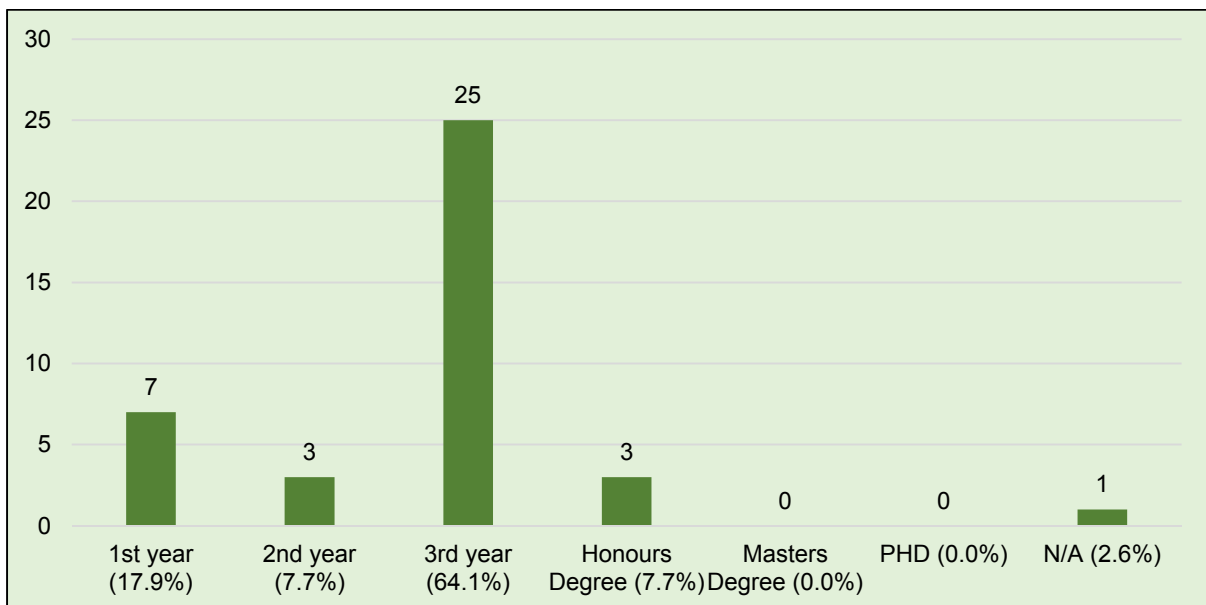
FIGURE 2.29: Did you complete a course in Economics subject didactics?



Source: FS Schools survey, 2018

Approximately 64.1% of the respondents indicated that they have only completed their third year in Economics whilst 25.6% of the respondents have not. Only 3 respondents have a post-graduate qualification in Economics, having completed their Honours degrees whilst 1 participant didn't indicate their highest training in the subject.

FIGURE 2.30: What is the highest training you have received in Economics?

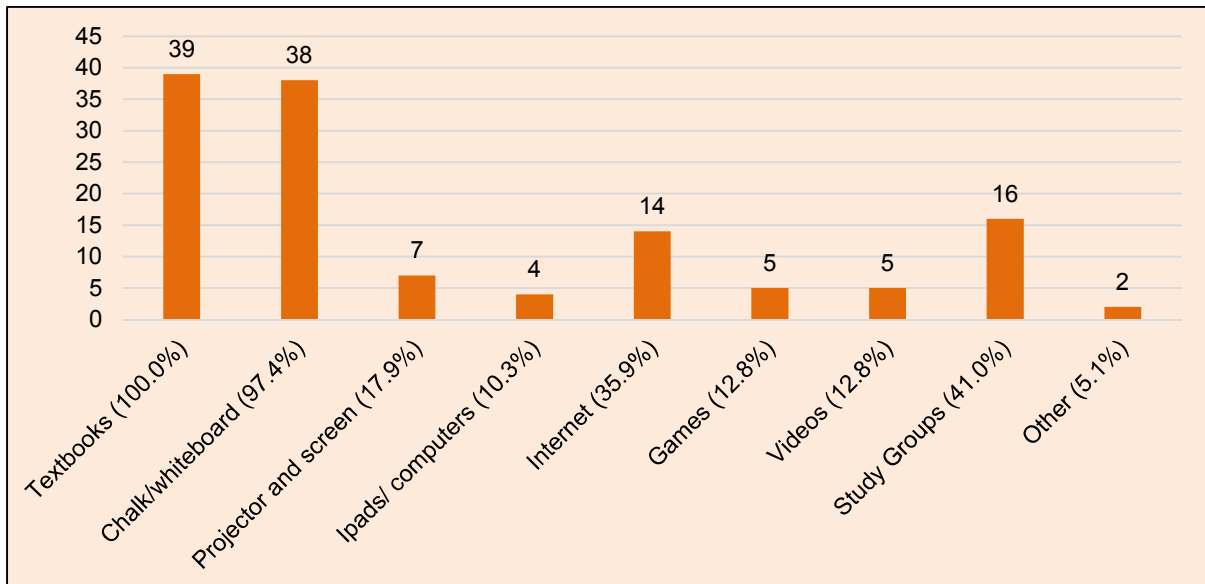


Source: FS Schools survey, 2018

4.2.2 Teacher methods

All the respondents use textbooks in teaching Economics. In addition, 97.4% of the respondents who also use chalk or white board, followed by 41.0% of the respondents who utilise study groups and 35.9% who use the internet for teaching the subject. On the other hand, only 10.3% of the respondents have computers or laptops, followed by those who utilise videos and games to teach the subject (12.8% each)

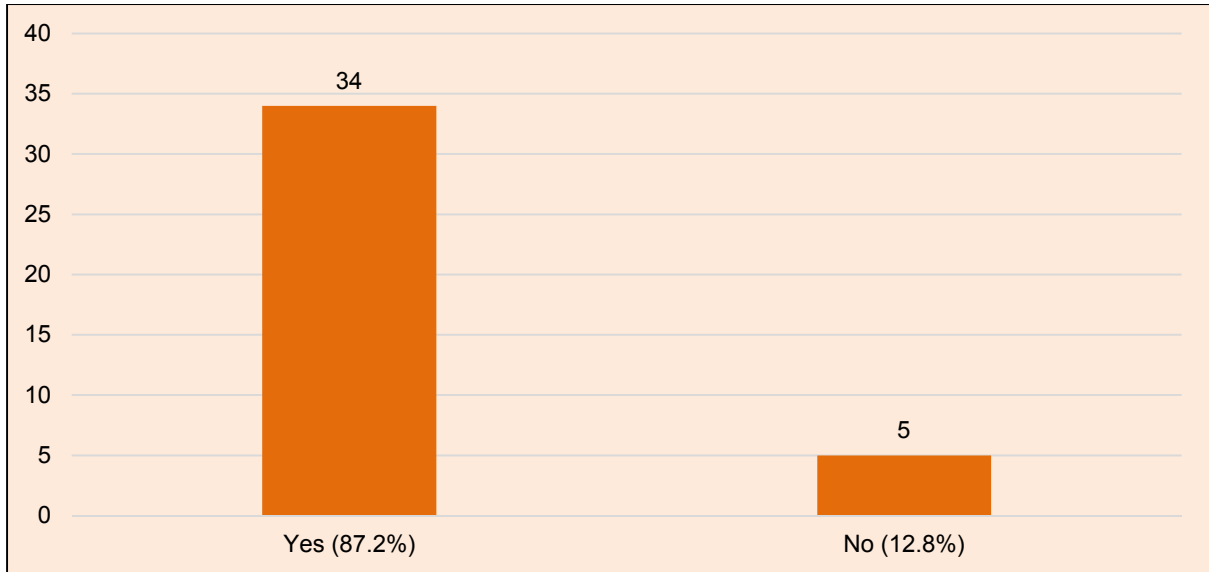
FIGURE 2.31: What tools do you use for teaching Economics?



Source: FS Schools survey, 2018

Most of the respondents (87.2 percent) indicated that their schools offer extra classes in Economics whilst 12.8 percent of the respondents indicated to the contrary.

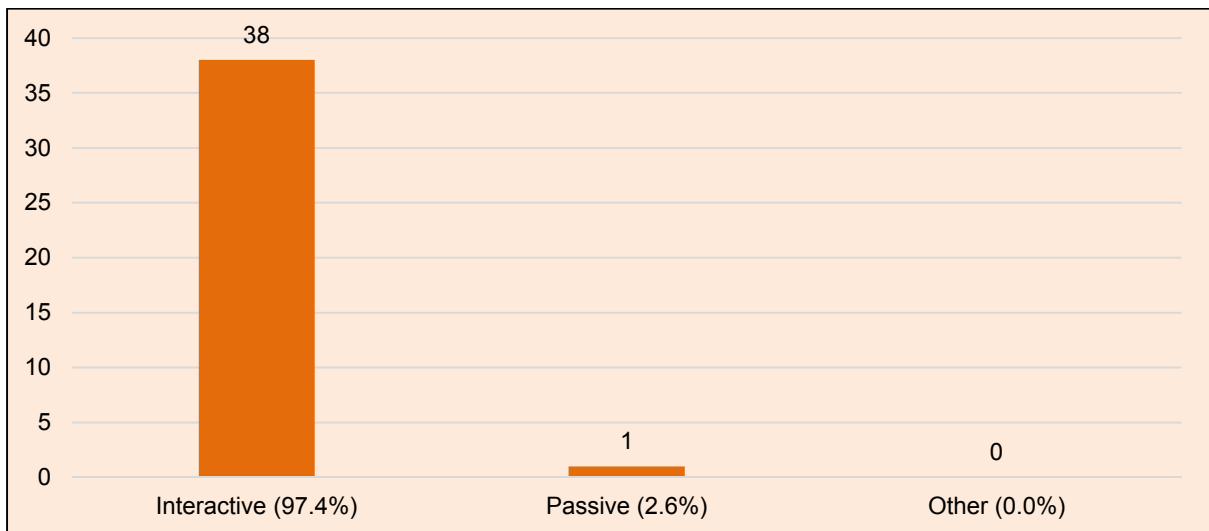
FIGURE 2.32: Does your school offer extra classes in Economics?



Source: FS Schools survey, 2018

Most of the participants (97.4 percent) indicated that they prefer the interactive method of teaching the subject whilst only 1 respondent indicated that they prefer the passive method of teaching.

FIGURE 2.33: In teaching Economics, what overall method do you prefer?

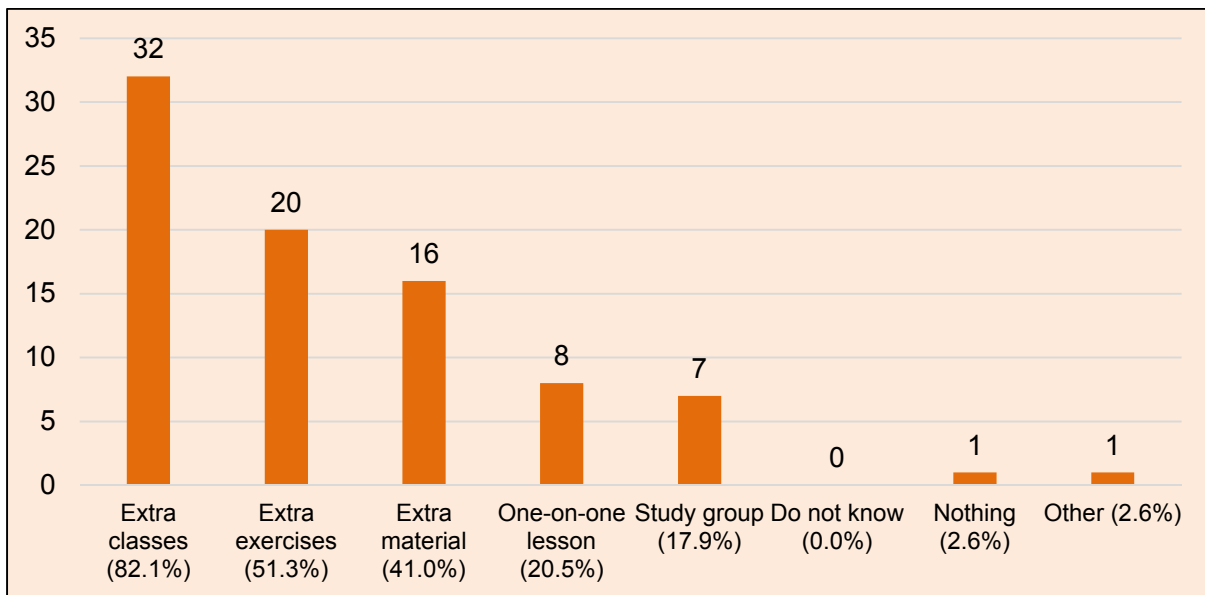


Source: FS Schools survey, 2018

The largest portion of Economics educators (82.1%) indicated that they utilise extra classes as a remedial action for learners who experience difficulty in understanding work taught in class. This is followed by 51.3% of the respondents who utilise extra exercises and 41.0% of the respondents who utilise extra material as remedial action

for this challenge. Conversely, no one did not know what remedial action to apply for learners who experience difficulty in understanding work taught in class. Also, only 1 respondent indicated that they applied no remedial action whilst another respondent indicated they apply other methods (mind maps) when learners experience difficulty understanding work taught in class.

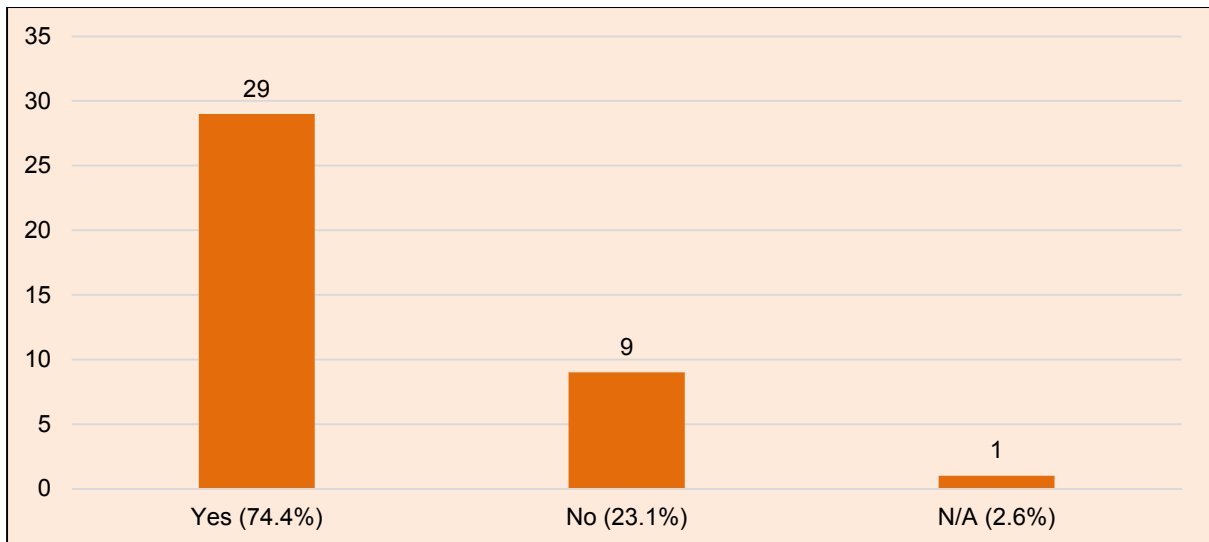
FIGURE 2.33: What remedial action do you apply when learners experience difficulty in understanding work taught in class?



Source: FS Schools survey, 2018

Approximately 74.4% of all the respondents indicated that they do have access to the internet whilst 23.1% indicated that they do not have access to the internet. Only 1 respondent did not give a response to the question.

FIGURE 2.34: Do you have access to the internet?



Source: FS Schools survey, 2018

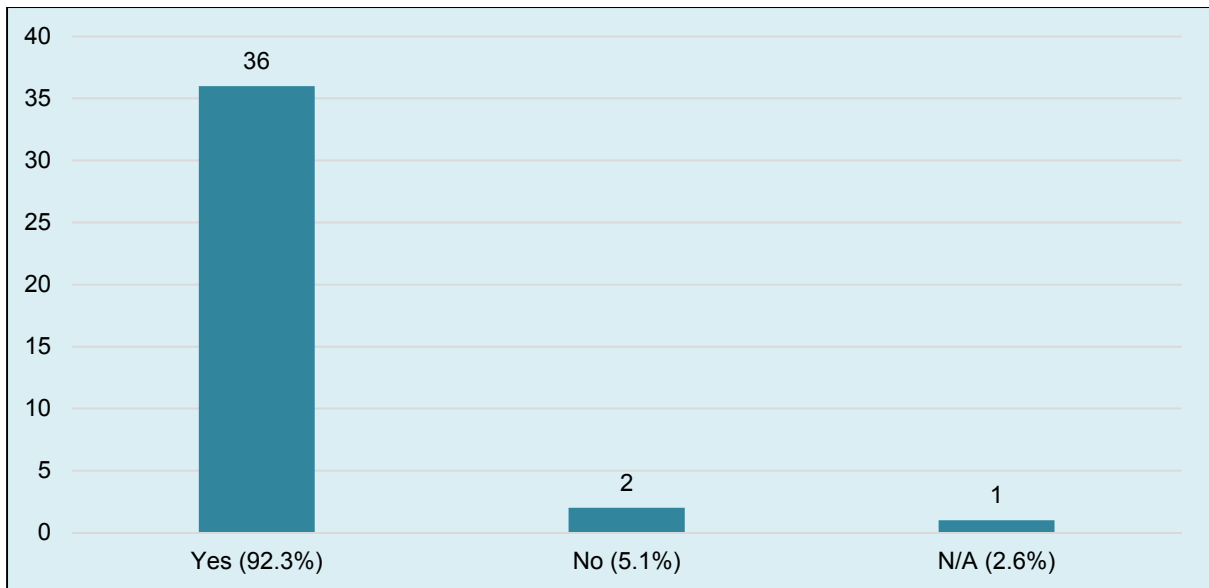
Please list 3 major ways you use to keep yourself up to date with economic news:

1. News
2. Internet
3. Economics journals or magazines

4.2.3 Teacher attitudes towards work

Almost all the Economics teachers who participated in the survey (92.3%) are happy to teach Economics in contrast with the 5.1% who are not happy to teach the subject. An additional 2.6% did not provide a response

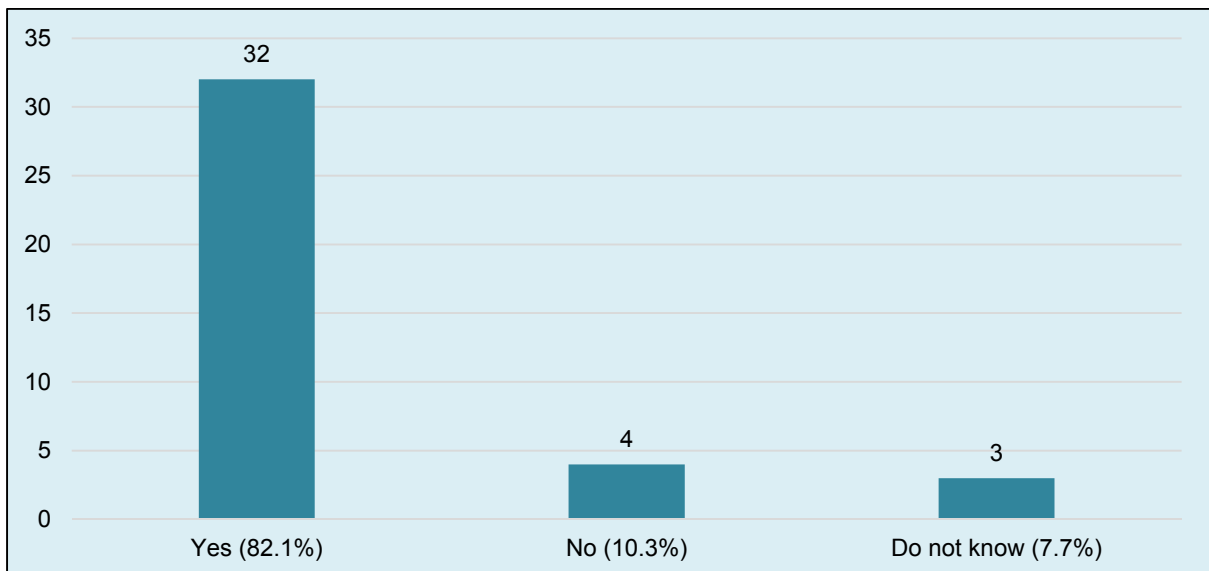
FIGURE 2.33: Are you happy to teach Economics?



Source: FS Schools survey, 2018

A large portion of the respondents (82.1%) are also happy to work in their current schools, in contrast to the 10.3% who are not happy to work in their current school. Also, 7.7% of the respondent do not know whether they are happy to work in their current school or not.

FIGURE 2.34: Do you look forward to coming to work in this particular school?



Source: FS Schools survey, 2018

25.6 percent of the respondents indicated a need for additional resources such as IT, food for learners, newer version textbooks, paying teachers and funding to improve

effectiveness of extra classes. An additional 25.6 percent of the respondents proposed methods such as dividing learners according to their needs in order to focus on certain areas and making the extra classes short, interesting and “sweet” for learners in order to improve the effectiveness of extra classes.

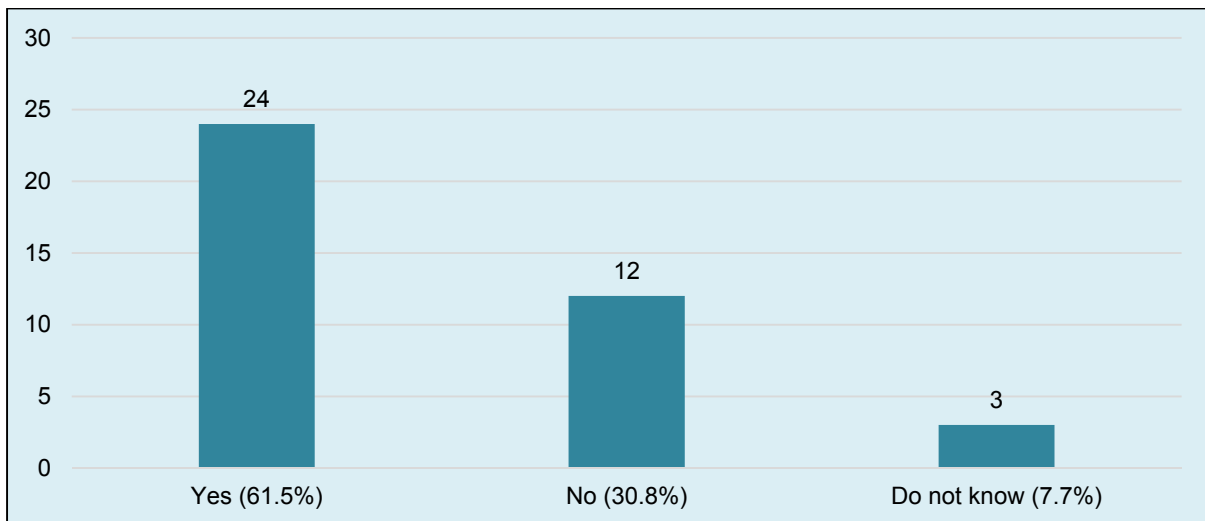
Table 2.3: Give one suggestion on how to improve effectiveness of extra classes

	Frequency	Percent
Resources (Material, funds and food)	10	25.6
Methods	10	25.6
Participation of learners	6	15.4
Monitoring of learners	2	5.1
External help	2	5.1
Other	6	15.4
Non response	3	7.7

Source: FS Schools survey, 2018

A large portion of the respondents (61.5 percent) think that there is an opportunity for growth or promotion in their growth. However, 30.8 percent disagree whilst 7.7 percent do not know if there is opportunity for growth or promotion in their work.

FIGURE 2.35: Do you think there is an opportunity for growth/ promotion in your work?

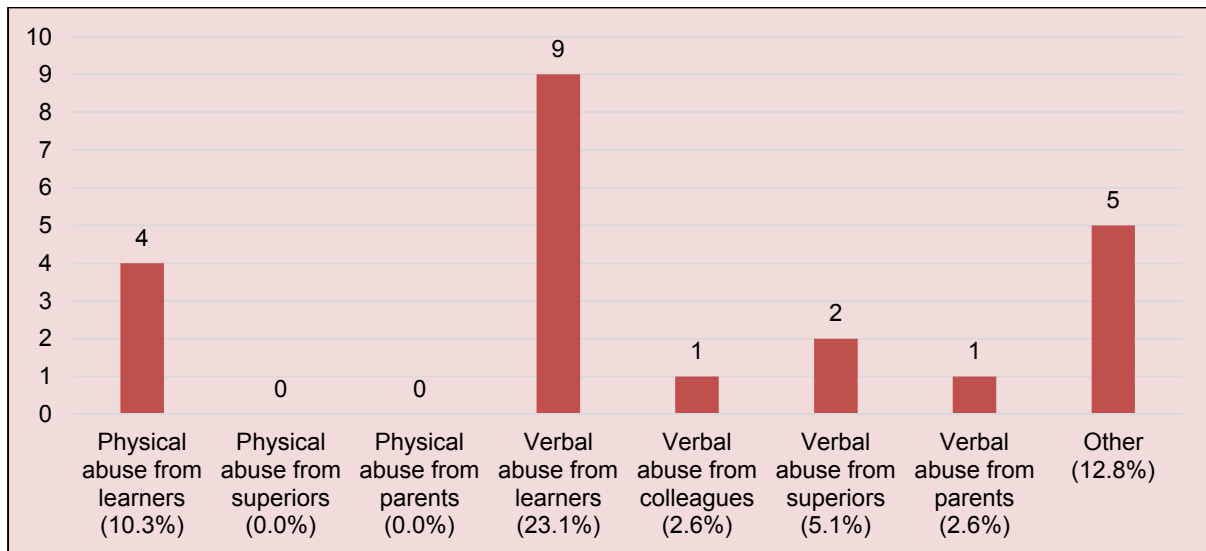


Source: FS Schools survey, 2018

4.2.4 Teacher environment

The greatest form of abuse that the respondents experienced was verbal abuse from learners (23.1 percent), followed by physical abuse from learners (10.3 percent) as well as verbal abuse from superiors (5.1 percent). Overall, the main abuse experienced by Economic educators comes from learners.

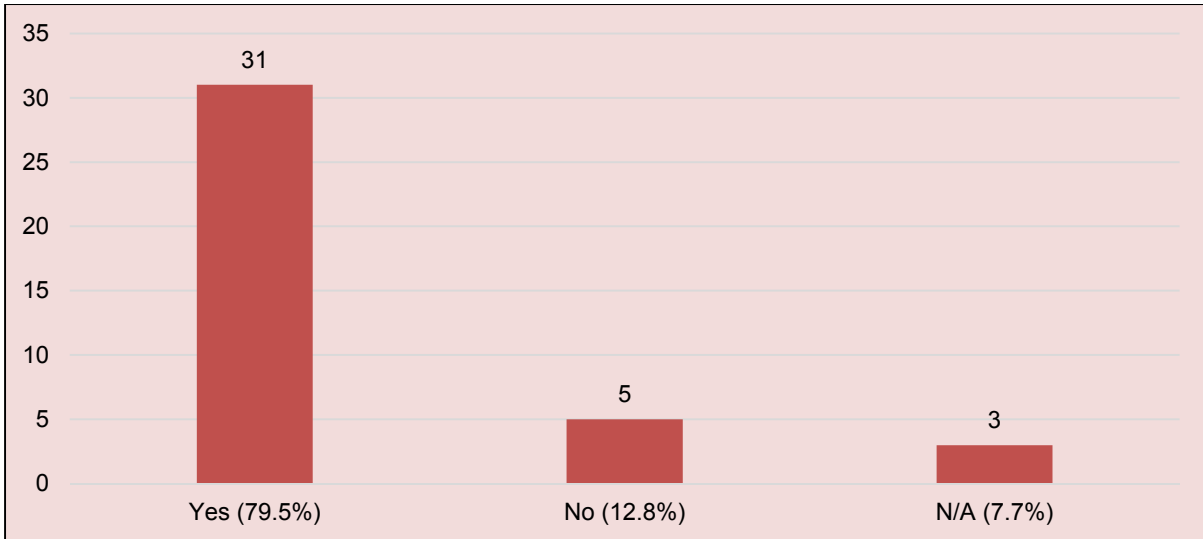
FIGURE 2.36: Do you experience abuse in your classroom in the following form(s)



Source: FS Schools survey, 2018

The majority of the respondents (79.5%) receive moral and professional support from their superiors in their schools whilst 12.8% indicated to the contrary. Another 7.7% chose not to respond to the question.

FIGURE 2.37: Do you receive moral and professional support from your superiors in your school?

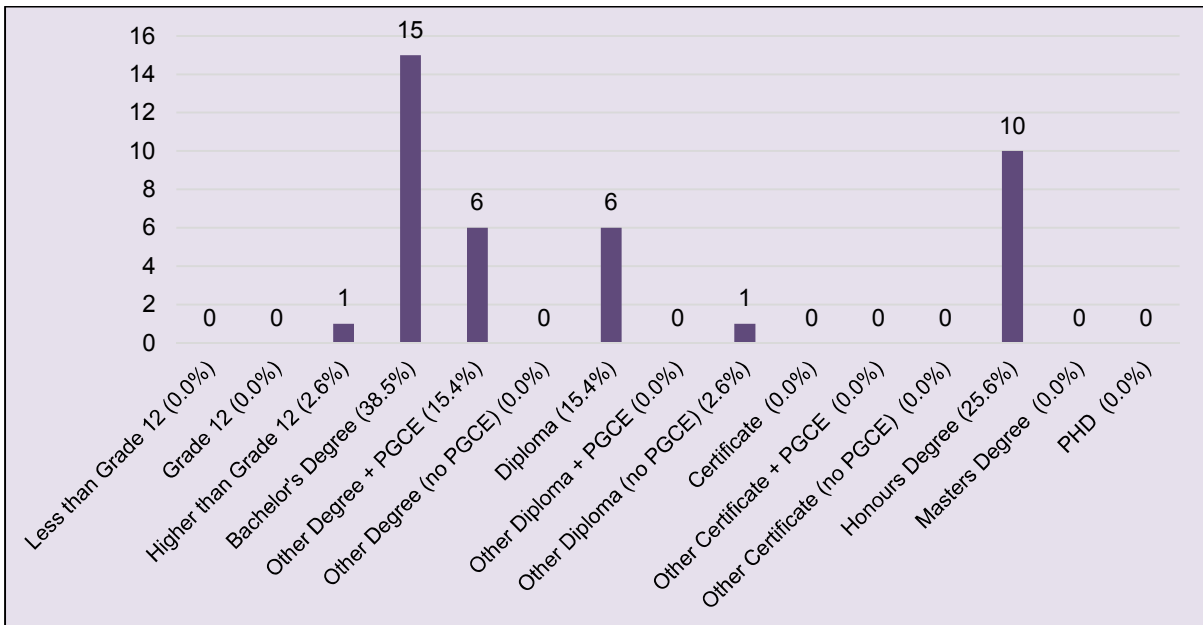


Source: FS Schools survey, 2018

4.2.5 Teacher experience

The greatest number of respondents (38.5%) have a Bachelor’s Degree, followed by 25.6% who have an Honours Degree as well as 15.4% who have other Degree with PGCE and a further 15.4% who have a Diploma. Only 1 respondent indicated that he or she has a higher than Grade 12 qualification whilst another respondent indicated that he or she has a Diploma excluding PGCE.

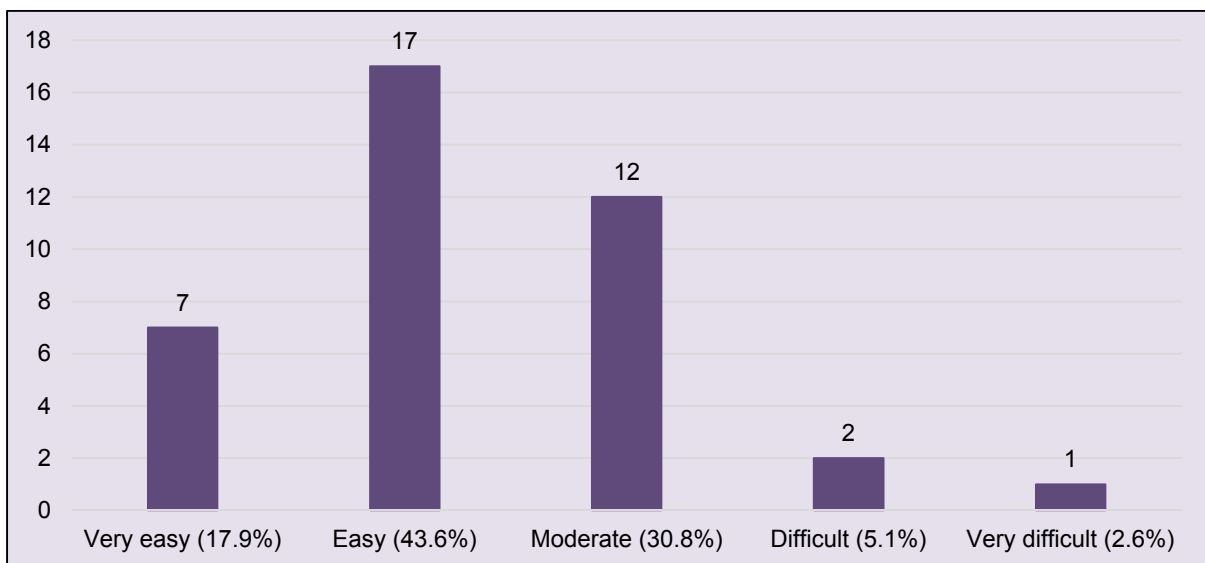
FIGURE 2.38: What is your highest qualification?



Source: FS Schools survey, 2018

The largest portion of the respondents (61.5%) find it easy to transfer Economics knowledge to the learners, in contrast to 7.7% who find it difficult to do so. Also, 30.8% are in between regarding this matter.

FIGURE 2.39: Please indicate the level of ease/difficulty in transferring Economics knowledge to the learners

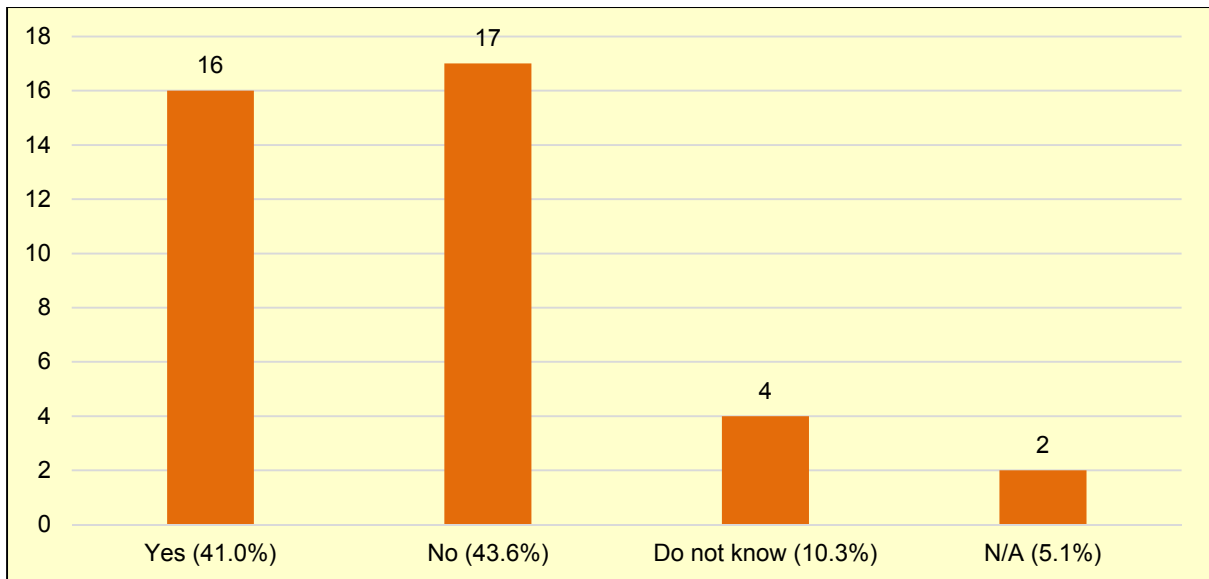


Source: FS Schools survey, 2018

2.4.6 Teacher development

The number of respondents who indicate that they have a development plan for training (41.0%) and those who indicate that they do not have such a plan (43.6%) are almost equal. However, 10.3% of the respondents do not know if such a plan exists whilst 2 respondents did not give an answer to the question.

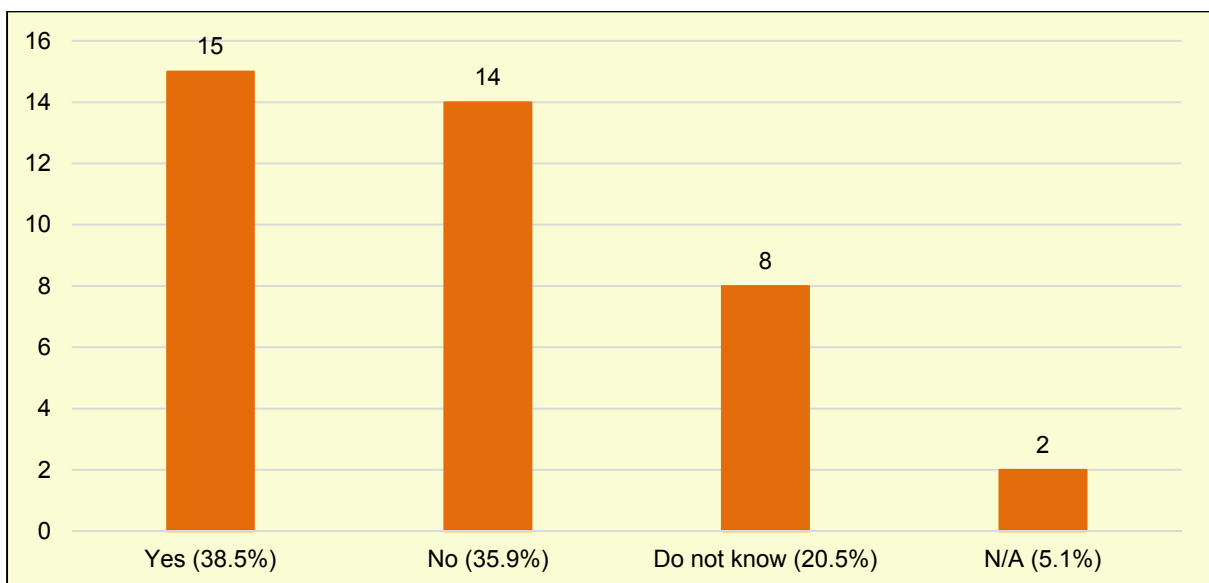
FIGURE 2.40: Do you have performance a development plan for training?



Source: FS Schools survey, 2018

The number of respondents are almost split equally in terms of the respondents who indicated that their schools have a budget allocated for teacher development (38.5%) verses those respondents who indicated to the contradictory (35.9%). Also, 20.5% of the respondents do not know if such a budget is allocated. Therefore the respondents who indicated the lack of budget and those who do not know if a budget is allocated for teacher development may explain why almost of third of the respondents haven't attended teacher development courses in over a year.

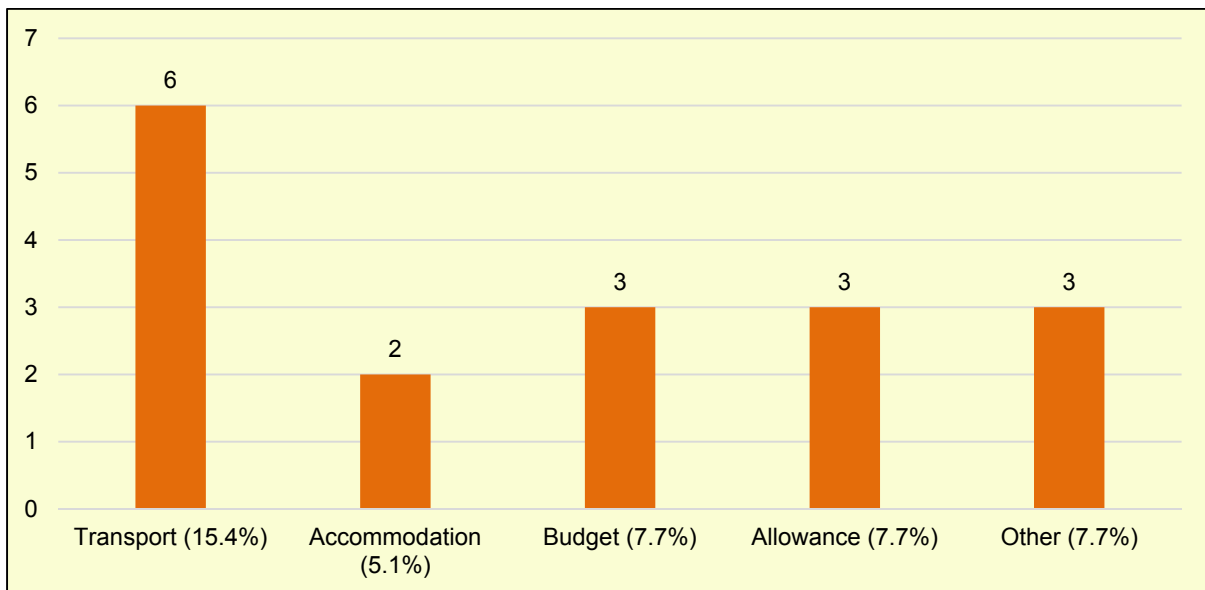
FIGURE 2.41: Does your school have a budget allocated for teacher development?



Source: FS Schools survey, 2018

Approximately 15.4% of the respondents indicated that transport is an obstacle in attending Economics teacher development courses, whilst 7.7% of the respondents indicated budget, allowance and other reasons each as obstacles. Only 5.1% of the respondents indicated accommodation as an obstacle in attending courses.

FIGURE 2.42: Which of the following obstacles do you experience in attending teacher development courses?

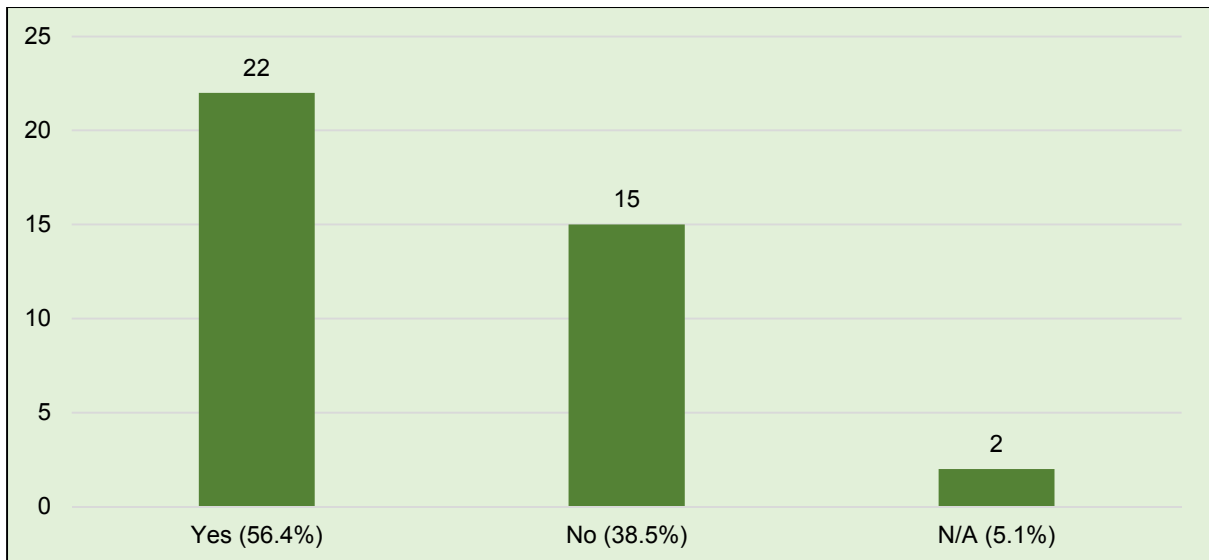


Source: FS Schools survey, 2018

2.4.7 Teacher challenges and solutions

Over half of the respondents (56.4 percent) indicated that there is a shortage of Economics teachers in their schools whilst 38.5 percent indicated to the contrary.

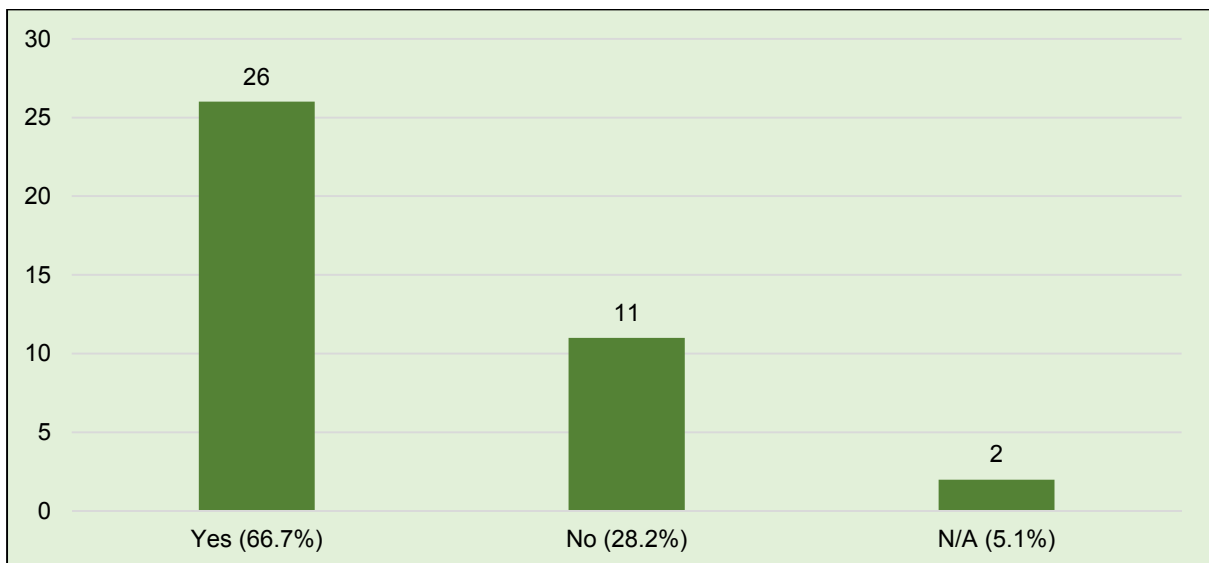
FIGURE 2.43: Is there a shortage of Economics teachers in your school?



Source: FS Schools survey, 2018

An overwhelming two-thirds (66.7 percent) find it difficult to teach progress learners in Economics versus 28.2 percent who do not struggle in this regard.

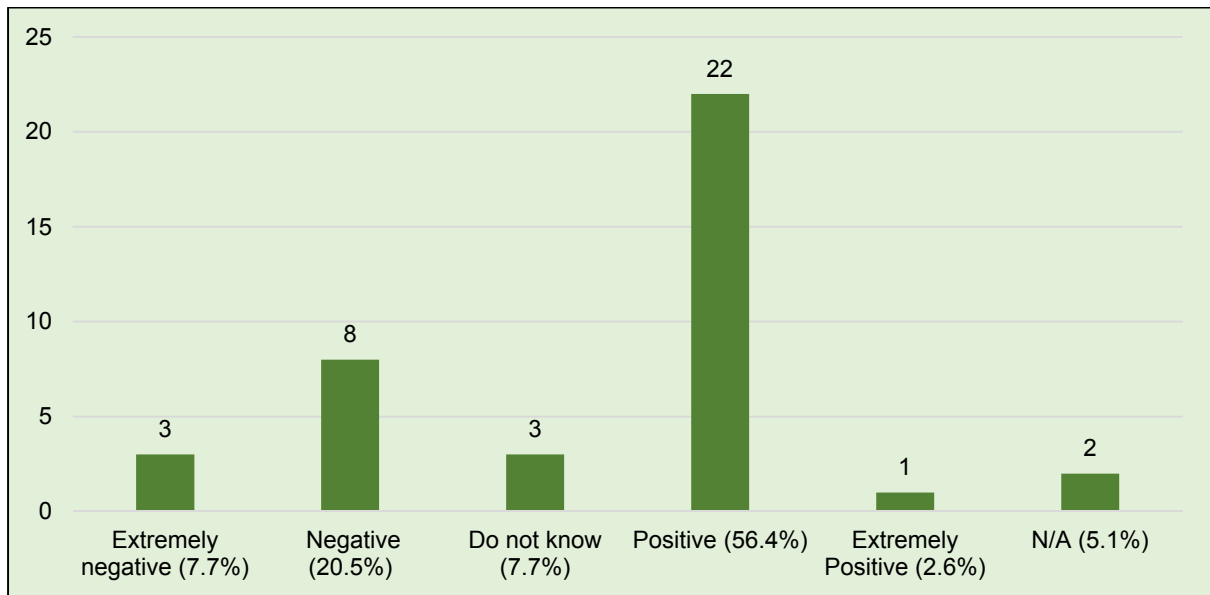
FIGURE 2.44: Do you find it difficult to teach progress learners in Economics?



Source: FS Schools survey, 2018

The majority of the respondents (59.0%) indicated that the curriculum changes have a positive impact on their method of teaching whilst 28.2% disagree. Only 7.7% of the respondents do not know the impact of curriculum changes on their method of teaching.

FIGURE 2.45: What is the impact of curriculum changes on your method of teaching?



Source: FS Schools survey, 2018

List 3 infrastructure-related hindrances in teaching Economics

Technology-related equipment

Inadequate physical assets

Other (No resources centre for Economics, overcrowded classes etc.)

Chapter 5

Conclusions and Recommendations

5.1 Learning Methods

Wion (2008) states that every learner has a particular learning style from which he or she benefits the most. Variation in terms of teaching Economics can be highlighted as a limitation. This can be seen in that 94 percent (an average across all grades) of learners highlighted that their teachers relied on textbooks for teaching Economics. One specific teaching strategy should not be the sole means of presenting information. Rather, teachers should utilize a variety of teaching methods and allow learners to be actively involved in several different ways without boring them with the same repetitive routine- Sekwena (2014) and Sekwela (2008).

Alternatives to the traditional learning method include active learning which Nolan (2010) states as a process whereby learners engage in higher-order thinking tasks such as analysis, synthesis and evaluation. In this study, active learning refers to a fundamental move from traditional teacher-centred learning towards an environment where learners are active (play a central role) in the accumulation of Economics knowledge, where there is an active use of unconventional techniques inside and outside the classroom to improve the performance of Economics in Free State schools. This study shows that most of the Economics educators (97.4 percent) also preferred the active method of teaching though this has not translated to a pass in the subject. This means that teachers could be aware of the benefits of active learning and want their learners to acquire deeper understanding of the material, however, they may choose to follow traditional teaching to cover big scope of content at a limited time.

The study does not only speak to the preference of teachers but it also highlights the issue of access to tools used for active learning, a majority of the sampled schools are classified as poor. According to Akinloye et al. (2015), private school's performance in Economics is better than of public schools due to location, socio-economic status of

learners and their teachers and the availability of instructional material which assist in the level of learner performance(see also Dolado and Morales, 2007). Wion (2008), Sekwena (2014) Sekwela (2008) and Wentland (2004) identify the following *five active learning strategies* that will improve how Economics is taught in the class room: The Collaborative Problem Solving Approach, Service Learning Approach, An Interactive Simulation Approach, The Inverted Classroom Approach and Technology based teaching methodologies.

- **The Collaborative Problem Solving**

Entails learners formulating and pursuing their own learning objectives by researching a situation, developing appropriate questions, and producing their own solutions to the problem whilst involving joint intellectual efforts by learners, or learners and teachers together. The primary data for this study shows that over a third (about 33.3 percent) of learners in each grade felt uncomfortable asking questions in class when they did not understand the content. Teachers could use this strategy to assist such learners.

- **Service-Learning Approach**

Furco (1996) defines service learning as “any carefully monitored service experience in which a student has intentional learning goals and reflects actively on what he or she is learning through experience. One of the impediments in the learning of Economics is the inability of learners to relate/link Economics to their daily lives. Therefore, service Learning can be used to expose learners to real economic issues/principles/theories within their local communities.

- **The Inverted Classroom Approach**

The inverted classroom approach means that events that have traditionally taken place inside the classroom can now take place outside the classroom and vice versa, this teaching method mixes the use of technology with hands on activities Wendland (2004). With this approach learners are expected to prepare for class by reading assigned material prior to class or by viewing/listening to lectures outside the classroom, whereas homework assignments can be done in class. This approach makes learners responsible for their own learning. This allows class time to be used for open ended discussions, experiments, demonstrations, and group activities.

- **Simulation games and role-play strategy**

A research by van Wyk (2013) reported that playing games in the classroom does not solve all educational challenges but simulations games, competitions and role playing are useful tools to actively involve learners in their learning and moving them from abstract understanding to reality.

- **Technology Based Teaching Methodologies**

Technology plays an important role in South African schools, as it is a rich source of (local and international) economic news, data, and information that can make Economics relevant and understandable in ways that traditional teaching and/or the use of textbooks alone cannot (Wion:2008). Other technology-based teaching/ learning approaches used in Economics includes: DVDs, television programs, films and simulation programs such as games and electronic textbooks etc. Furthermore, the primary data in this study showed the need to technology as a support method to traditional teaching or learning methods (textbooks and chalkboards) by both educators and learners. However, the challenge of poor/lack of technological related infrastructure and lack of access and/or internet affordability especially in poor areas of the Free State is the biggest hindrance in the roll out of technology based methodologies.

5.2 Teacher's and Learner's attitude towards Economics

Onyekachi (2008) found that learners attitude towards Economics have a significant and direct impact on learner achievement- with those holding negative attitudes hardly performing well and those with positive attitudes producing good outcomes. Furthermore, Onyekachi (2018) in trying to determine where negative attitudes towards Economics (particularly from learners) stem from, explains that learners can be influenced by a number of factors, including (i) the belief that the subject itself is very hard, (ii) teachers limited teaching methods and their inability to arouse interest towards the subject, (iii) inadequate instructional material and lastly (iv) parents attitudes and its influence on individual learners.

This study found that Economics learner's attitude towards the subject is generally in the positive, with 90 percent learners from all grades affirming Economics as an important subject, with an average of 88 percent of the learners looking forward to attending Economics classes and a further 92 percent on average volunteering to attend extra classes if offered. However, of concern is the amount of time learners spent on studying the subject per week, including on homework. Pfeiffer (2018) in his homework policy review found that homework has a legitimate place in South African schools, it improves the learner's grades and allows for learners to work independently and develop self-discipline.

To improve learner attitude towards Economics, teachers can arouse and sustain learner interest by giving regular extra classes/homework, group work and practical work, it is understood that learners do learn faster what they can do on their own or in groups. The use of recent/ modern and adequate materials can arouse learner interest in the subject. This requires government to, at all times provide adequate physical infrastructure, teaching resources and training so as to keep both the staff and learners motivated.

Teachers are encouraged to continuously be trained in the subject. Lack of professional training and/or professional development of teachers can be a key source for poor quality teaching. From the survey, teachers painted a gloomy picture in terms of teacher development, main issues are that: 43.6 percent of the teachers (respondents) indicated that they did not have a performance development plan, a further 35 percent indicated that their schools do not have a budget allocated for teacher development, and the obstacles to attending teacher development courses include transport, budget and allowance. Within the same survey, teachers advanced the following solutions on how. Development courses can be improved and this includes (1) focusing on specific topics that are challenging, (2) methods to teach learners e.g. progress learners, etc. Also, (3) the respondents also encouraged full and regular attendance of the courses by both educators and subject advisors. Again, the respondents listed provision of resources such as transport and content material as a 1st way to improve Economics teacher development courses.

5.3 Learning Environment

Learning environment is the diverse physical locations, contexts, and cultures in which learners learn. There is an infinite number of possible learning environments, which is what makes teaching so interesting. The atmosphere of the classroom sometimes promotes and improves learning. Furthermore, the structuring of the learning environment is essential for both teachers and learners. A majority of the respondents in this study indicated that their teachers were never absent, however, a minority of the respondents still indicated that their teachers were absent from work almost every day. Study by Reddy et al. (2010) found that 11 percent of teaching time is lost due to teacher absenteeism.

Ivatts as cited in (Mathibeli 2017:39) states that, “there are several causes of teacher absenteeism, these causes include: teacher demography, seniority, type of employment, type of school, job satisfaction, professional commitment, school and institutional management, weak monitoring systems, incentives and sanctions, educational administration, recording and reporting procedures, health, secondary employment, class size, quality of school infrastructure, distance to school, isolation, level of training, formal duties, quality of learning environment, social context of the school, community social economic status, school leadership and community participation.”

In order to solve teacher absenteeism problem, it is recommended that the Department of Education should substitute the current manual clocking system by biometric system that will require that teacher’s clock in and out of school using fingerprints Mathibedi (2017). This system will strengthen monitoring systems and create a culture of accountability. The inability of the head teachers to sanction or discipline habitual absentees or lateness to school also contributed to the poor teaching days, Cilliers et al. as cited in (Mathibedi 2017:45) suggest that there should be local monitoring, whereby school stakeholders- headmasters, parents, or the school management committee, are invited to monitor teacher attendance. Furthermore, government should improve the working environment of teachers and increase their morale by improving the school infrastructure, reducing big classes, improving remuneration, rewarding attendance and developing wellness programmes.

Another factor which has proven to be of main concern was the inability of some learners in using modern technologies and IT equipment for learning Economics. According to (Cloete 2017:6) technology is an integral part of living in the 20th century, referred to as the fourth revolution is accompanied by challenges and opportunities. Although the integration of technologies into classrooms causes some distraction for both teachers and learners, integration of technology has proven to increase learner achievement (Moore 2013). Furthermore, under teaching methods we learned that technology is able to expand classroom boundaries, the learning environment moves from one way learning to instructions being provided by any number of subject experts - in support or addition to the person teaching the course. In line with Moore (2013), it is recommended that government should make available the necessary equipment and connectivity. Furthermore, it is advised that teachers should undergo through effective professional development on new technologies, to ensure the use of technologies to its full potential.

In terms of medium of instructions, Rammala (2009:56) explains that the medium of instruction has a major impact on the academic performance of learners, or on their interest to learn a specific subject or the way they communicate with the educator as well as fellow learners about different concepts of a subject. The study found that some teachers are using a mixture of languages in teaching of Economics which according to the study by Kretzel (2019) proven that pupils learn best in their own mother tongues and the use of code switching a process of alternating and blending languages is used to assist learners in understanding concepts.

This is further supported by the National Development Plan (NDP) which insists that language policy be informed by a greater appreciation of labour market imperatives, which learners need to receive high-quality instruction in both their mother tongue and English. Teachers are encouraged to use their discretion in how language is used within classrooms as long as it does not affect individual's rights and it is used to improve the performance of learners.

5.4 Content Experience

In the problem statement, we raised concerns about the decline in the number of learners that enrol for Economics. Under this section (learner content experience), we were able to identify the exact difficulties which learners had with studying Economics. When asked which part of Economics they found most difficult, Grade 10 said essays and graphs, Grade 11 said graphs and calculations and Grade 12 said graphs and calculations. In addition, Grade 10 listed Production Possibility Curve (PPC), business cycle and circular flow as the most difficult topics to understand, whilst Grade 11 listed dynamic markets, Elasticity and Development Economics as difficult and finally, Grade 12 listed dynamics of markets, foreign exchange markets and inflation as the most difficult topics to understand.

In terms of subject enrolment and the pursuit of Economics as a career, schools' management are encouraged to invite the Department of Education and/or any other higher education institution to provide free exhibitions offering career information, advice and guidance to Grade 9 to 12 learners in the province, this will assist learners to identify the many fields within Economics that they can pursue based on their interests and/or strengths. Concerning the subject areas listed as difficult by learners, teachers are advised to zoom into specific topics and (in addition to improving their teaching methods) offer further support through increased extra classes, winter classes and/or excellent camps which are normally awarded to grade 12 learners in the province.

5.5 Challenges and solutions

The study found that in Grade 10: 41 percent of the learners said there was shortage of Economics teachers while 51 percent indicated the opposite. In Grade 11: 50 percent of the learners said that there was shortage of Economics teachers while 44 percent said there is no shortage. For Grade 12: 41 percent of the learners said that there was shortage of Economics teachers while 52 percent said there is no shortage. Van Brockhuizen (2016) explains that a shortage of qualified teachers is as a result of too many teachers leaving the schooling system and too few teachers entering the profession. The South African Council for Educators (SACE) discovered that over half (55 percent) of educators had expressed their intention to leave the profession. These are mainly educators skilled in technology, natural sciences, Economics and

management. Some of the reasons sighted for educators leaving the profession included (but not limited to): Job satisfaction, poor working conditions, lack of career advancement, comparatively low salaries and in the case of public schools, Ayuk (2012) cites HESA and explains that fiscal issues in terms of limited funding which has plunged the majority of public schools into a crisis of resources, overcrowded classrooms, poor discipline and a lack of learning ethos or climate as the main reason for teachers departure.

Teacher salaries should reflect the importance of the teaching function to society. Pitsoe (2013) advises government to increase salaries across board or alternatively consider “differentiated salaries”. This refers to a policy initiative offering additional compensation to teachers willing to work in less than ideal conditions for example, geographically (e.g. isolated rural areas), student population (e.g. low achieving, high poverty) and overcrowded classes. Pitsoe (2013) explains that schools that encourage and support teacher’s professional development are likely to see improved retention. Van Brockhuizen (2016) to make up the shortfall in teacher supply, government must increase the absorption of new teacher graduates and promote teaching as a worthy career, furthermore, efforts should be made to increase the attractiveness of the teaching profession, through increased school funding and improved work conditions.

As far as changes in curriculum are concerned, almost 30 percent of the respondents of this study indicated that the curriculum changes have a negative impact on their method of teaching. Ngema (2016) found that changes in education happens at a faster pace which leaves teachers and learners confused and stressed, because teachers are not consulted on changes and the resources needed for this change are not provided (timeously) by the department of Education (Moodley, 2013). He further states that changes to the curriculum is often imposed on teachers as they are not directly involved during the curriculum change process, this results in the teachers not owning the curriculum; hence they may accept or reject it. In alignment with the existing literature, it is advised that teachers be involved in the designing and implementation of the curriculum to assume some ownership, furthermore, the department is encouraged to conduct continuous curriculum training for teachers and even testing as a monitoring tool.

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Annexures

Annexure 1: Learner Questionnaires

Annexure 2: Educator Questionnaires

Annexure 3: Consent Forms

Annexure 4: Sampling of Schools per district

Annexure 5: Ethical Clearance

Annexure 6: Final report for data capturing and data cleaning (quality assurance)