## A STUDY OF IMPROVING

## MULTI-GRADE TEACHING AT X

## Preface

Before you, lies the final thesis 'A study of improving multi grade teaching at a farm school'. This thesis is a graduation research of the PABO, one of the Stenden University programs. In July 2018 I started this research at the Farm school. The research was completed in November 2018.

Through this way, I want to say thanks to a number of people. First I want to thank my supervisor X. He was always available for questions or meetings. I met him every two weeks and I could send him chapters anytime. I received a lot of feedback and I went through the research step for step.

I would like to say thanks to $X$ for the space and time that they gave me during the process. The teachers made me feel welcome. I was welcome to take a look in every class. Especially I would like to thank the principal of the school. I could ask her anything and she always wanted to help me. I also would like to thank the learners of the school, especially the learners of grade R and 1 and the learners of grade 4,5,6 to welcome me as a teacher.

I would also like to thank my fellow students, my dad, family and my friends. They have me stimulated and motivated during this process. I have received a lot of motivational words and good advice.

Finally I want to thank you, as a reader, for your time. I proudly let you read my research.
Annemarie Veldhuizen

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## 1. Introduction

> "Multi-grade teaching refers to the teaching of learners of different grades in the same classroom setting. It is not unique to South Africa and is prevalent both in developed and developing countries. In many African countries multi-grade teaching is seen as a key pedagogic tool that can assist teachers in the context of teacher shortages, budget constraints and other difficult situations. According to the Centre for Multi-grade Education, multi-grade teaching is used in approximately 7000 South African schools. Most of these schools are located in rural areas (Baseline Study, Centre for Multi-Grade Education 2009)." (Department of basic education)

According to the Department of Basic Education multi grade teaching is also a way to deal with the teacher shortage. A lot of farm schools in South Africa do not have enough learners to give every grade its own teacher. A lot of farm schools are combined schools where there are 12 grades to teach. If the number of learners is not high enough, the schools do not receive teachers for every grade. I mention this, because this thesis is based at the x School in the area of $x$.

Most of the people in the area of $X$ left the farms after the advent of democracy in South Africa. They went to the townships around this village, because their children could access better education in the townships. However, some of the people have stayed on the farms. X is the most disadvantaged school in the area. The learners have many problems, because most of the learners comes from a poor family and the parents do not encourage them to go to school and to do their homework. Most of the learners are not motivated to learn. The work pressure for the teachers is very high at this school. There is a lot of multi-grade teaching, but the teachers do not know how to handle this. Because of that, the learners do not get the attention they deserve. Some teachers do not know how to differentiate during multi-grade lessons. Furthermore, the principal feels a lot of pressure. The principal has to run the school and also teach grade 4, 5, 6 and 9 English and science, because of the shortage of teachers. I think it is important that somebody from outside (like me) does research at this school, because they are dealing with a lot of problems. I would like to help them. I also have to cope with multi-grade teaching in Holland. That is why I chose this subject for this research. I was curious about the strategies the teachers at $X$ use to deal with multi-grade teaching. I was keen to observe the teacher strategies in South Africa and read about multi-grade teaching.

According to Department Basic Education Republic of South Africa (2015) the perceptions of many teachers includes that multi-grade teaching is more difficult than mono-grade teaching. They name a lot of reasons. I mention the most important reasons. There is a shortage of teachers who know a lot about multi-grade teaching and there is a shortage of experienced teachers. There are not very much teachers who has a lot of experience and know much about multi-grade teaching. There is not any support for multi-grade teachers. There is no one who can help the teachers.

Teachers in the Netherlands work very hard and the work pressure is also high. I think it is important that the teachers enjoy their work because this will be reflected on the learners. In the Netherlands there are a lot of schools with multi-grade teaching. Every teacher has had a multi-grade class at some point. I want to help the teachers, to let them see how teachers in the Netherlands deal with multi-grade teaching. I would like to show how I cope with multi-
grade teaching and compare this with what they are doing. I am sure we can learn a great deal from each other.

## 2. Problem analysis

This research took place at $X$. Because of the number of learners, there are not enough teachers for every grade. There are 211 learners at X and there are seven educators. X is a combined school. That means that they have grade $R$ till grade 12 at one school. Because of the teacher shortage, the teachers have to teach more than one grade in the same classroom. There are 12 grades, but only 7 teachers. Because the education system in South Africa is based on mono-grade teaching (Joubert, 2010), teaching more grades in one classroom is difficult for the teachers. They do not know how to handle this and they work under a lot of pressure. They look tired and stressed in the classrooms.

The main reason why teachers are not able to teach more than one grade in the same class is that they did not learn about multi-grade teaching in their training. They have a high work pressure because of that. They also have to teach children from poor families. The children are not motivated to learn. Some of the learners do not do their homework and they do not care about their education. The learners do not get the attention they need, because the teachers have to split their attention among more than one grade. The teachers already have to deal with that and now they also have to deal with multi-grade teaching. The principal told me that most of the teachers were very tired and sometimes they did not come to school because of exhaustion.

Against this background, the practical problem is that most of the children are bored in class, because the teacher just teaches one grade at a time. Teachers do not use resources for both grades. Or they do not even show up and just stay at home. The teachers are not able to cope with multi-grade teaching. The teacher of grade R told me that was trained for grade $R$ and for the foundation phase. She did not learn about multi-grade teaching. She just has to do it. The principal says that multi-grade teaching just does not work at this school, because of the number of learners and the unqualified teachers. Joubert (2010) says that "The reasons for multi-grade teaching's continued disfavour have to be attributed to the dominance of the present paradigm of schooling as encapsulated in the single-grade approach" (p. 3).
Most of the teachers of $X$ are educated during de apartheid. According to 'national policy framework for teacher education and development in South Africa' (2006) during this education, there was a lot racism and ethnically devided sub-systems. There is a new curricula now, which require more knowledge of the teachers. But the teachers at $X$ are educated during the old curricula. The knowledge of the teachers of multi-grade teaching is low.

In this case, because I did a small study, I was not able to bring about change in the whole school, but only in the grades I worked with. Motivation of the learners is also a problem at this school, but I did not implement this in my research. It is unlikely, because of the limited time, that the teacher will learn everything about multi-grade teaching.

## 3. Theoretical framework

A theoretical framework can lead to more understanding of the topic. The following literature study answers the various sub questions of this research.

### 3.1 Multi grade teaching

First of all I had to know what multi grade teaching is. It is important that I had the definition clear, because multi grade teaching can be understood in very different ways. According to Joubert (2010) Multi Grade Teaching (MG) is not an universal term. He names a lot of terms: 'MG', 'multi-level teaching', 'combination classes', 'forced mixed- age classes and forced mixed-grade. There are many terms to describe, but the practice is widespread. 'Multi' means a lot, many, more than one. The word 'grade' means level. Multi-grade, therefore, means many grades which means the teachers have to teach many grades at the same time, in the same classroom. It happens in schools if there are more grades than teachers. Farm School is a combined school, so the school has to teach 12 grades, but they only have 7 teachers. According to Berry (n.d.) multi-grade schools are often located in remote and difficult to reach areas. The community may not see the value of education and it is important that the community be involved in the life of the school. Multi-grade is also common in larger urban schools. For example, when one grade has a lot of learners and two grades has a shortage of learners. They can combine the two grades with a shortage of learners and they can split the grade with too much learners.

### 3.2 Multi grade teaching in South Africa

This thesis is set in South Africa and because of that I looked for some literature about multigrade teaching in South Africa, just to see what is written about that. Multi-grade teaching is a pedagogic approach that offers a lot of opportunities to improve teaching. Multi-grade teaching is a solution for small schools in South Africa, especially for farm schools. A lot of small schools have a teacher shortage (Joubert, 2010). But there are challenges. During urbanisation, the number of learners increased. A mono-grade approach was affordable. Mono-grade teaching became the norm in South Africa during urbanisation. All books, resources and curricula were established according to mono-grade teaching. Most teachers are trained for mono-grade teaching, but most of the teachers have to deal with multi-grade teaching in class. This creates a negative attitude in many teachers. The government is leaving the multi-grade school to local initiative. The government focuses on conventional schools. Multi-grade schools do not get the attention they need. As a result, multi-grade schools tend to show poor results. Joubert (2010) says that multi-grade teaching does not work in South Africa, because of the present paradigm of schooling as encapsulated in the single-grade approach. I did observations to look how the teachers at Farm School handle this.

The broad goal of the National Policy Framework For Teacher Education and Development in South Africa (2006) is to achieve a balance between the number of teachers entering and leaving teaching each year. There are fewer students who decide to become teachers and there are more teachers who leave teaching. Becoming a teacher is not attractive for people. They do not know where they would be placed after qualification and the work conditions are bad (there is a lot of work pressure). The Provincial Departments of Educations have to decide how many teachers are needed at a school. They look at qualifications, phase, language, subject and district. There are some subjects for which there are very few teachers. I saw this at Shaw Park Farm school as well. They did not offer economic subjects to the learners, because there was no teacher who could teach that. The learners could not
choose between subjects when they were in high school (Department of Basic Education, 2006).

A lot of reports have contributed to shaping the National Policy Framework For Teacher Education and Development In South Africa (2006), including the Report of the Ministerial Committee on Rural Education (2005). This report mentions a shortage of competent teachers, not enough school facilities, limited access to programmes for teachers and problems of teaching multi-grade and large classes. This report mentions that farm school do multi-grade teaching, because there are not enough learners. The government mentions that teachers can teach two grades, but in fact, there are teachers in rural areas, who have to teach three or more grades. Some argue that it is not true that only large schools can use a lot of resources to provide specialised learning (South Africa. Department of Education, 2005). Furthermore, schools in remote areas can use ICT or other media programmes to provide specialised learning.

### 3.3 Challenges

In this section I discuss the challenges of multi grade teaching that I found in the literature. I have added this to the theoretical framework, because I had to know which challenges I could face at Farm School. I did some interview with teachers about their experiences, so I wanted to have some background information about the challenges. The 'national policy framework for teacher education and development in South Africa' (2006) is designed to make teachers professionally ready to teach in the democratic South Africa in the $21^{\text {st }}$ century. This policy also mentions some information about the teacher shortage (paragraph 3.2). A lot of teachers received their professional education during the apartheid era. There was a lot of racism and ethnically divided sub-systems. The teachers of the current generation have to cope with the new non-racial, democratic education system. There are new curricula, which require more knowledge of the teachers. I mention this in this theoretical framework, because most of the teachers at the Farm School received professional education during the apartheid. Hence they are not familiar with the currently curricula. According to the Department of Education (2006), the majority of teachers have not yet been educated enough to teach in the growing democracy. Because of the limited knowledge of many teachers, they make mistakes during teaching the learners.

Multi-grade teaching is more demanding than mono-grade teaching. According to AOB (n.d.) a school decides to make multi-grade classes because of emergency, not because it is good for the learners. This is address the shortage of learners. National curricula are made for mono-grade teaching. It is difficult for teachers, because they have to follow curricula for both grades. Teachers need to be taught how to make these curricula effective for them. It is the same for instructional materials. The text and workbooks are designed for mono-grade classrooms. The teachers need to be taught how to deal with this. The teachers have to be aware of the possibilities of the instructional strategies.

According to an education survey of the Netherlands (2018) multi grade teaching places great demands on the didactic skills of the teacher. According to the survey, multi grade groups are groups consisting of at least two grades. It is difficult for teachers, because they have to focus on many things: The quality of the instructions, the participation of the learners and classroom discipline. According Berry (n.d.) the teacher has to be skilled to reduce the amount of 'dead time' during the lesson. 'Dead time' is the time that the learners are not productively engaged on task. The teacher must be aware of different grades, because the learners are not motivated when they are bored in class (Berry,n.d.).

## 3.4 instructional strategies

To prevent dead time (paragraph 3.4), the teacher can implement a couple of instructional strategies (Berry, n.d.). I have added this to this framework, because I thought it was important that I had some background information about instructional strategies, before I gave some lessons and wrote a recommendation. The teacher has to implement self-study moments during the lessons. The teacher has to be aware of different instructional advantages. Some of the strategies mentioned by Berry (n.d.) are peer instruction (learners are acting as teacher to another learner), cooperative groupwork (work in groups of learners) and individualized learning programs (self-study). These instructional strategies can help the teacher, because the teacher has more time to focus on individually learners.

AOB (n.d.) gives some tips to cope with multi-grade teaching. If the teacher has to teach a multi grade class, the teacher can work in themes. The teacher can design different exercises, but the theme will be the same which means the teacher can talk about one theme with the whole group. The teacher needs to do things that are useful for your group, but teachers do not have to restrict themselves to the resources. Resources are not always useful. The teachers can develop their own resources, if resources are not useful. Teachers have to prepare themselves before lessons, because they have to give instruction to both grades. The teacher does not have time during the lessons to read about what the learners have to do. But if the teacher cannot do it on her own, she can always ask for help. A lot of colleagues like to help or the teachers can sit in on each other's lessons. It is interesting to see how other teachers deal with multi grade teaching.

### 3.5 Advantages

Multi grade teaching does not only have challenges. It has advantages too. According to Wouda (2017) learners will learn how to cope with delayed attention. Sometimes the teacher has to give instructions to one group and the other group has to work individually and silently. The teacher does not give all her attention to one group the whole time. Learners cannot ask all of their questions, because the teacher has no time for that. The learners have to remember their questions, so if the teacher has time for questions the learner can ask. This is difficult for most of the learners (Wouda, 2017), so when they are in a classroom with more than one grade, they learn how to cope with this. The learners learn to wait for attention or they learn ask other learners for help. The learners have to take care of their own problems first, because the teacher does not have time for them all the time. The learners can ask their classmates as well. This is a way of peer teaching (paragraph 3.5). The learners become more independent.

The teacher has to split his or her attention. According to Wouda (2017) the teacher should not always split the group, because the children can learn from each other. There are really advanced learners, general learners and slow learners. If a teacher has to teach grade 4,5,6 the learners can help each other. The learners of grade 6 can help the learners of grade 4. The smart learners of grade 6 can help the learners of grade 5. The teacher does not have to pay a lot of attention to this grades if the learners are helping each other first. If they have questions after the instruction of a learner, they can ask the teacher. Peer teaching is an advantage for the teacher, because the teacher has more time for individually learners during peer teaching. All of the learners are busy and the teacher does not have to give instruction. Peer teaching is also an advantage for the learners. To teach other learners makes you smarter. When you teach another learner, you have to learn and read the resources too. You have to understand it and you have to explain. Meanwhile, the learner learns the subject too. In this way both learners are learning from each other.

### 3.7 Differentiation

The teachers at farm schools have to teach multi-grade classes most of the time. As mentioned before, they do not know how to handle this. They have to differentiate between the grades and between the learners. There are some models which can help with this. The first model I want to talk about is the 'Direct instructional model' (Kerpel, 2014). This model offers possibilities to differentiate between the grades. There are many phases during the lesson. I only discuss the useful phases for differentiation. The lesson starts with recap the last lesson. The teacher asks questions about the last lesson. Not every grade or learner has to participate in this. They can start with their own exercises. In this model, all learners (of one grade) receive the same instruction. After this instruction, the teacher makes an exercise together with the grade. The smart learners, who already understand the exercises, can start with their own exercise. The other learners join the exercise. After this exercise, the teacher has time to help the learners who are on another level. At the end of the lesson the teacher have to review the lesson. What did the learners learn? Who needs more help the next lesson? Those are questions the teacher can ask. Kerpel says that the teacher can also differentiate during the questions the teacher asks during the lesson. The teacher can begin with a simple question and end with a difficult question.

A second model I want to discuss is Interactive, differentiate, direct instruction model (IGDImodel). This model is a modern version of the 'Direct instructional model'. This model consists of a couple of phases. These phases are made to differentiate during instruction and time for more conversations between the learners during the instruction (Berghen leren, n.d.). The phases are:

1. Introduction with the whole class
2. Interactive instruction and make an exercise together (smart learners can start with the exercises)
3. Self-study of the learners. Extra instruction for slow learners.
4. Self-study of the whole classroom. The teacher walks through the classroom for help.
5. End of the lesson. Reflection of the lesson (wij leren, n.d.).

According to Kerpel (2014) there are two ways of differentiation. The first one is 'convergent differentiation'. This means that the all learners have to achieve the goal of the lesson. All learners join the instruction. When they start the exercises, the teacher has time for extra instruction for slow learners. The second one is 'divergent differentiation'. Important are the individual levels of the learners. The differences between learners become bigger, because they work at their own level. The teacher does not have to give instruction to the whole group. The teacher gives instruction to individual learners or groups of learners.
Why should teachers differentiate? According to Universiteit Utrecht (2015), because differentiation optimise the learn progress of the learners.

## 4. Problem statement

### 4.1 Research purpose

As mentioned in previous chapters, the work pressure is very high for the teachers, because they do not know how to handle multi grade teaching. The purpose of this thesis was to write a recommendation to help $X$ to cope with multi grade teaching. The aim was to look at the currently situation and to look at alternative options to handle with Multi Grade Teaching. To achieve these goals, research is done in theory and practice.

### 4.2 Main question

The main question of this research is "How can teachers at $X$ improve at multi grade teaching?"

## Key words

- X
- Improve
- Multi- grade teaching


### 4.3 Sub questions

In order to be able to answer the main question, sub questions have been drawn up that relate to practice and theory.

1. How are primary school teachers educated / prepared for teaching?
2. How is multi-grade teaching understood and handled in SA?
3. What strategies are teachers at $X$ implementing to manage MG?
4. What resources are available to facilitate MG?
5. What are the challenges teachers of $X$ face in managing $M G$ ?

## 4.4 hypothesis

This is a qualitative study asking how a situation can improve. It is therefore not possible to base the study on a hypothesis. However, I have noticed that most of the teachers do not differentiate between the grades. Following University Utrecht (2015), differentiation makes it possible to optimize the development of the learners. In addition, the teacher has to learn how they can differentiate between the grades. My expectation is that teachers can learn to cope with multi-grade teaching and in this way optimise learning.

### 4.5 Demarcate the research

Following interviews with the teachers, some possible research topics are emerged. The principal concluded that the work pressure is high for the teachers. She indicated that the reason is teaching multi-grade classes. The teachers indicated that the education they received, is not enough to teach multi-grade. The research thus concentrates on ways to cope with multi-grade teaching at $X$.

## 5. Research strategy

According to Van Der Donk \& Van Lanen (2012) there are seven steps to carry out a research. The steps will lead to a complete research, with a research question and conclusion.


Figure 1, The cycle of (Van Der Donk \& Van Lanen, 2012)

### 5.1 The research group

The research group are the teachers at $X$. I observed them during multi grade lessons and I interviewed them. There are seven teachers at the school (Farm school, 2018). It is a combined school, so some of them teach at high school level. I focused on the teachers of grade R until 6 , because they would help me with my research and they teach a multi-grade class. I used the teachers of grade R and 1, 4,5 and 6 and the teacher of grade 5 and 6 for this thesis. The teacher of grade 5 and 6 is also the principal. She helps the teacher of grade 4,5 and 6 to teach grade 5 and 6 separately. I chose to give lessons at grade 5 and 6, because they can speak English.

### 5.2 Data collection method

To answer the main question "How can teachers at X improve in teaching multi grade?" and the theoretical and practical sub questions, I designed a method of data collection.

|  | SQ 1 | SQ2 | SQ3 | SQ4 |
| :--- | :--- | :--- | :--- | :--- |
| Studying | X | X | SQ5 |  |
| Observing |  | X | X | X |
| Asking | X | X | X | X |
| Visiting |  | X |  | X |

SQ stands for sub question. I described the following order of sub questions:

1. How are primary school teachers educated / prepared for teaching?
2. How is multi-grade teaching understood and handled in SA?
3. What strategies are teachers at $X$ implementing to manage MG?
4. What resources are available to facilitate MG?
5. What are the challenges teachers of $X$ face in managing $M G$ ?

To answer the main question and to write a recommendation, I used teaching as well. I did this, because I tried some ways of improving of multi grade teaching at X. You can read more about this at paragraph 6.4.

### 5.3 Design activities

| Sub questions/ main question | Observation | Interview | Teach activities |
| :---: | :---: | :---: | :---: |
| How are primary school teachers educated / prepared for teaching? | X | Interview for teachers of grade R until 6. <br> Questions about what they know about multigrade teaching. <br> Interview principal about the education of the teachers. | X |
| How is multigrade teaching understood and handled in SA? | X | X | X |
| What strategies are teachers at X implementing to manage $M G$ ? | Observation during lessons. Looking at books they use, way they teach, way they give attention to the learners, about paying attention to all grades and about differentiation. I designed a schedule for this (appendix....). <br> Observed during lessons about time management. How does the lesson plan look like? I designed a schedule for this (appendix....) | Asking questions as a result of the observations. Why are the teachers teaching like this? | X |
| What resources are available to facilitate MG? | I involved this in the observation of SQ 3. | Asked the teachers if they have appropriate resources for multi-grade teaching. | I tried the available resources during the lessons I gave. |
| What are the challenges teachers of $X$ face in managing $M G$ ? | X | Asked the teachers questions about this in a interview. | X |


| How can teachers at $X$ improve at teaching multigrade (MQ)? | I used the sub questions. I mentioned this before. | Is used the sub questions. I mentioned this before. | I designed some lessons to try ways to improve at multi grade teaching at $X$. |
| :---: | :---: | :---: | :---: |

### 5.4 Ethical issues

I do not use information about the learners in my research, so I do not have to inform the parents about this research. I already informed all of the teachers. The principal said that if I want to do a class visit or an interview she makes it happen. Otherwise some teachers say yes, but in fact they do not want me to be in class.

In this thesis I used other names. These are the teachers names: teacher $\mathrm{R}+1$, teacher $2+3$, teacher $4+5+6$ and teacher $5+6$. Because of the privacy of the school and the teachers I will use this names.

### 5.5 Process of data collection

| Sub question / main <br> question | Research activity | Results |
| :--- | :--- | :--- |
| How are primary school <br> teachers educated / <br> prepared for teaching? | Reading literature <br> Interview the <br> teachers/principal | The answers I found in the <br> literature are described in <br> my theoretical framework. <br> The answers I found during <br> the interviews are described <br> at chapter 6. |
| How is multi-grade teaching <br> understood and handled in <br> SA? | Reading literature | The answers I found in the <br> literature are described in <br> my theoretical framework. |
| What strategies are <br> teachers at X implementing <br> to manage MG? | Observations <br> Interview the <br> teachers/principal | The observation with <br> questions is described in <br> chapter 6. The interviews as <br> well. |
| What resources are <br> available sto facilitate MG? | Observations <br> Interview the teachers <br> Visiting classes | The results I found are <br> described at chapter 6. |
| What are the challenges <br> teachers at $X$ face in <br> managing MG? | Interview the teachers/ <br> principal <br> Observations | The results I found are <br> described at chapter 6. |
| Main question: <br> How can teachers at X <br> improve at multi-grade <br> teaching? | Literature <br> Teaching <br> Conclude other sub <br> questions | Literature is described at <br> chapter 3. <br> The results during teaching <br> are described in chapter 6. |

### 5.6 Timetable

| Week number | At X | At home |
| :---: | :---: | :---: |
| $\begin{array}{r} 36 \\ (03-09 / \\ 09-09) \end{array}$ | Observation strategies finished Interviews teachers finished | Prepare observation and interview |
| $\begin{array}{r} 37 \\ (10-09 / \\ 16-09) \end{array}$ | Observation time management Discuss possibilities of trying some strategies in grade 4,5,6 after holiday | Process data of week before |
| $\begin{array}{r} 38 \\ (17-09 / \\ 23-09) \end{array}$ | Prepare lessons for grade 4,5,6 | Prepare lessons for grade 4,5,6 |
| $\begin{array}{r} 39 \\ (24-09 / \\ 30-09) \end{array}$ | Holiday | Holiday |
| $\begin{array}{r} 40 \\ (01-10 / \\ 07-10) \end{array}$ | Holiday | Holiday |
| $\begin{array}{r} 41 \\ (08-10 / \\ 14-10) \end{array}$ | Teach English | Process data of observations and interviews |
| $\begin{array}{r} 42 \\ (15-10 / \\ 21-10) \end{array}$ | Teach English, interviews | Process data and prepare last interviews |
| $\begin{array}{r} 43 \\ (22-10 / \\ 28-10) \end{array}$ | Teach English, observation | Process data |
| $\begin{array}{r} 44 \\ (29-10 / \\ 04-11) \end{array}$ | Teach English, observation, interviews | Process data |
| $\begin{array}{r} 45 \\ (05-11 / \\ 11-11) \end{array}$ | Collect last data | Prepare presentation |
| $\begin{array}{r} 46 \\ (12-11 / \\ 18-11) \end{array}$ | Collect last data | Prepare presentation |
| $\begin{array}{r} 47 \\ (19-11 / \\ 25-11) \end{array}$ | Presentation | Prepare presentation |
| $\begin{array}{r} 48 \\ (26-11 / \\ 01-12) \end{array}$ | Presentation | Prepare presentation |

## 6. Results

In this chapter I present data to help me answer my research question, and sub-questions. I used three methods of data analyse: observations, interviews, exercise results and instructional strategies. In this chapter I present the data as following the methods of data analysis. I have chosen this way, because one method of data analyse answered more sub questions. As an ethical factor the names of the teachers will not be used (paragraph 5.4).

### 6.1 Difference in implementation

The plan of data collection differs from the processing, because sometimes there was no transport, no lesson for observation and I changed the plan in the middle of the research. The plan was that I was going to do a couple of the same observations in the same grade, to compare it with each other. Because of the shortage of time, this was not possible. I knew that I had a shortage of time, but I didn't know that transport could be a problem. I had to drive with the principal to the school. Sometimes she didn't go or there was no transport available. I did less observations then I had planned, but the observations that I did are good enough to answer the sub questions.
I did observations during multi-grade lessons. Sometimes there was no multi-grade lesson I needed for my observation. I had to cancel my observation again and in the end it leaded to not following my data collection plan. I solved it to observe the important things for my sub questions. In the end, it was enough to answer it.
After I handed in my research proposal, I realised that my sub questions not answered the full main question. I had to add a more practical method of data analysis. I had to taught myself to find out if there is any difference in results of the learners, if I differentiate during the lesson. I added this to my plan in the second module. I taught six lessons in total. I wanted to check the results of all learners, but this was not possible. The first lesson I had 14 learners. The second lesson I had 20 learners. So I chose to use the results of 14 learners who are always there.
All difficulties are discussed with X . He agreed and supported me.

## 6.2 observations

During my research, I did an observation in three different classes. I did an observation at three different teachers: the teacher of grade $R$ and 1 , the teacher of grade 4,5 and 6 and at a teachers who teach grade 5 and 6 (separately from grade 4). I did an observation with 5 questions (see appendix 2 ) and a time-management observation (appendix 3 ). I have chosen to discuss the observations in four themes: attention, resources, instruction and exercises. I show the differences and the similarities between the teachers.

### 6.2.1 attention

I observed if all learners receive individual attention. The learners of grade $R$ and 1 received all individual attention. The teacher walked around the class and looked at the exercises the learners made and answered questions of the learners. The teacher of grade 4,5 and 6 and the teacher of grade 5 and 6 gave the possibility to ask questions, but none of the learners asked something. The teachers didn't walk around. The teacher of grade $R$ and 1 differentiate by walking around the whole lesson. The other teachers didn't. It is important to differentiate, because it can optimise the learning progress of the learners (Universiteit Utrecht, 2015). Grade 5 and 6 have an extra possibility to receive attention. The principal of the school, teaches grade 5 and 6 separately, to help the teacher of grade 4,5 and 6 . She only does this when she has enough time.

### 6.2.2 resources

I observed the resources the teachers use during the lesson. The teacher of grade $R$ and 1 used two different resources: a grade $R$ resource and a grade 1 resource. She used the right resources for the right grade. The teachers of grade 4,5 and 6 used the same resource for every grade. She used the books of grade 6 for all grades. The teacher of grade 5 and 6 did this as well, but she used exercises with a lot of pictures. It was easier to understand for the learners. As discussed in chapter 3 it is difficult for the teacher to use different resources, because the books are designed for a mono-grade approach (Joubert, 2010). I could not find any type of differentiation in the books they used.

### 6.2.3 instruction

I observed the instruction of the lesson. I observed if there was any difference between the grades in the instructions. The teacher of grade R and 1 did not give any instruction to grade R. Grade R did know what they had to do. The teacher gave a short instruction to grade 1 about their math exercises. The teacher of grade 4,5 and 6 gave the same instruction to all grades. She used some materials to make it more practical. The teacher of grade 5 and 6 also gave the same instruction to both grades. She used pictures to make the exercise clear for the learners. Martijn Smoors (2017) mentions in his article about instruction in a multigrade class, that a teacher should think in blocks of fifteen minutes. The teacher can combine the grades in some exercises (for example: practice math) and not every grade needs instruction every day. So he says that the teacher has to look practical to the schedule of the week.
According to Berry (n.d) the teacher has to be aware of 'dead time'. Dead time means time when the learners do not do anything. I count the minutes of dead time during the observation (appendix 3). There was no dead time during the lesson of grade $R$ and 1 . The learners were busy with their own work. There was dead time during the lessons of grade 4,5 and 6 and the lessons of grade 5 and 6 . The quick learners were done soon, they were bored.

### 6.3 Interviews

I did an interview with three teachers of the school. I also observed these teachers. I interviewed the teacher of grade $R$ and 1 , the teacher of grade 4,5 and 6 and the teacher of grade 5 and 6 . I split the interview in two themes: training and challenges, because all questions were based on these themes. This interview is in appendix 4.

### 6.3.1 Training

I was wondering if the teachers received any training during their education for teaching multi-grade classes, because we received training for this in Holland and because this would clarify the problem of not enough knowledge about multi-grade teaching. The teacher of grade $R$ and 1 told me that she did not received any training for multi-grade teaching. She is graduated for teaching the foundation phase. It is the same for the teacher of grade 4,5 and 6. She is graduated for teaching the intermediate phase, but she did not receive any training for multi-grade teaching. It is not the same for the teacher of grade 5 and 6 . As mentioned before, this teacher is also the principal of the school. She showed me her notes of a training she attended. There are some notes about activities that would be great to do in a multigrade class. Like, groupwork and peer teaching. There are also some notes about the advantages, difficulties and about classroom management. This teacher received this training before she graduated as a principal.
As mentioned in chapter 3 the majority of teachers have not yet been educated enough to teach in the growing democracy. Because of the limited knowledge of many teachers, they make mistakes during teaching the learners (Department of Education 2006).

### 6.3.2 challenges

During my interview, I asked a couple of questions about the work pressure and about the challenges the teachers face during teaching multi-grade classes. The teacher of grade R and 1 told me that the difference between the grades is enormous. The learners of grade $R$ can not even hold a scissor when the learners come to school. This is because they did not go to a preschool. Most of the parents do not have money to pay the preschool for their children. At the meantime, grade 1 is busy to learn math, Xhosa and English. The teacher said that it is difficult for her to combine these two grades, because most of the learners do not have enough concentration yet to be silent during an instruction for the other grade. She said that the learners are too young to wait for their attention.
The teacher of grade 4,5 and 6 told me that she do not have individually attention for every learner during a lesson. She told me that she has to choose between the grades. She choose which grade receive attention this lesson and which grade next lesson. She told me that she also choose between the slow learners, the normal learners and the fast learners. She can not give all grades and groups attention during one lesson. She has to choose. She does not like that.
The teacher of grade 5 and 6 is also the principal of the school. She faces other challenges, because she has a double job. Her biggest challenge is time. She told me that she does not have enough time for the administration of the school, because she also has to teach during the day. She told me that her second challenge the motivation of the learners is. She told me that she tried a lot of ways to keep the lesson interesting for the learners, but she had the idea that nothing worked.
According to AOB (n.d.) a school decides to make multi-grade classes because of emergency, not because it is good for the learners. Teachers need to be taught how to make the new curricula effective for them (mentioned in chapter 3).

## 6.3 exercise results

During the observations I did, I saw that the teacher of grade 4,5 and 6 and the teacher of grade 5 and 6 were using one book for all grades. I wanted to check if this had influence at the results. I taught grade 5 and 6 three times. I taught two lessons with using the books of grade 6. The third lesson I gave a lesson with using books for both grades. I compared the results in the graphs beneath.


Figure 2: mistakes made by learners of grade 5 and 6. The teacher used the books of grade 6 for both grades.

This graph shows that there is a difference between the number of mistakes. The learners of grade 5 made 27 mistakes in total. The learners of grade 6 made 16 mistakes. This concludes that the exercises were more difficult for the learners of grade 5 .


Figure 3: mistakes made by learners of grade 5 and 6. The teacher used books of grade 6.
This graph shows that there is a difference as well between the number of mistakes. The learners of grade 5 made 25 mistakes in total. Grade 6 made 15 mistakes in total. This concludes that the exercises were more difficult for the learners of grade 5.


Figure 4: mistakes made by learners of grade 5 and 6. The teacher used books of grade 5 and 6.

This graph shows that there is less difference between the grades if you compare it with the first two graphs. This concludes that the exercises were easier for both grades. During this lesson both grades received different instruction and different exercises.

The graphs show that the number of mistakes is lower when I used books for both grades. The difference between the mistakes are also really different. The first lesson there was a difference of 11 mistakes between the grades. The second lesson the difference was 10 and the last lesson there was a difference of 3 mistakes. This concludes that using the right books for a grade, results in less mistakes, especially for grade 5.

## 6.4 instructional strategies

During my research I received notes from my principal about multi-grade teaching. She received this during a training she followed as principal. These notes mentioned 10 strategies that could be used in a multi-grade class: groupwork, demonstration, peer teaching, drama, project approach, observation, quiz, role-play, debate and interest approach (principal Shaw Park Farm School, n.d.). I gave two lessons to grade 5 and 6 to look if these strategies worked. I chose groupwork and peer teaching, because I could implement it during the English lessons.

### 6.4.1 peer teaching

Berry (n.d.) also mentioned some of these strategies. According to him, learners acting as teachers to other leaners during peer teaching. I tried this strategy during an English lesson. During that lesson I did an observation as well (appendix 5). I gave instruction to the whole group. After that, I made sub groups. Smart learners of grade 5 helped other learners of grade 5. Same for grade 6 . In the beginning, it was difficult for the learners. They were not used to this. After a little help from me, they began to understand it. The 'peer teachers' felt responsible for the other learners and the learners asked the 'peer teachers' a lot. At the end of the lesson, everyone finished their exercises. During the evaluation of the lesson, the learners were positive. They liked it. They would do it again.

I had a lot of time during the lesson. The learners were busy. I walked by to help the peer teachers when necessary. I explained it to the peer teachers and they explained it to the other learners. I can conclude that this works in grade 5 and 6 of Shaw Park Farm School, because all learners finished their work and were really positive about peer teaching. When a teacher does this in their classroom every day, or a couple times a week, the learners gets used to it. It will be easier and easier for the learners.

According to Wouda (2017), peer teaching is an advantage for the teacher, but also for the learners. The teacher has time to help the peer teachers. This are a couple of learners, but less then the whole class. The teacher has more time during the lesson, to do other stuff or to help slow learners. It is an advantage for the learners, because teaching other learners makes the learners smarter as well. The learner is responsible for the other learners. The learners has to understand the exercise at a higher level, because he or she has to explain it and maybe the learner has to explain it in different ways.

### 6.4.2 cooperative groupwork

Berry (n.d.) also mentioned this strategy. Cooperative groupwork is working in groups of a couple learners. There are a lot of cooperative activities, but the activities are always designed to do it with a couple of learners. The main idea of the activities is to discuss and
work with each other. I was aware of the dead time (Berry, n.d.). I concluded from the observations, that the difference between the level of the learners was huge. That is why I chose to make some extra exercises. If a learner was finished quick, he or she knew what he or she could do, because I mentioned it in my instruction. There was no dead time during the lesson. If a learner did not work I could correct him, because all learners knew what to do when they were finished.

During my lesson I used three different cooperative activities. I observed the learners during these activities, that was easy, because I had nothing to do. The learners were not used to this. It was difficult for them to start. It took a long time. I had to be strict, because the learners did not do anything. It did not work the first time. The second time, the learners understood it better, but I heard that they talked a lot about other stuff. The third time, the learners were not motivated anymore. It was hard to motivated them again.

One of the risks was that some learners did not involve during the activities. This was true. There were some learners who decided everything. My conclusion is that the teacher has to be strict about the rules during this lesson. The learners have to work together, not separately and the learners have to listen to each other.

## 6.5 comparison hypothesis

In section 4.4 the hypothesis is described. As mentioned before, I could not base this study on a hypothesis. However, I described an expectation. My expectation was that teachers can learn to cope with multi-grade teaching to differentiate between the grades.

When looking to the graphs, it can be seen that differentiation between the grades is meaningful. The results of the learners were better, using different books for different groups. However, this is not the only way to cope with multi-grade teaching. I mentioned more about this in the next chapter.

It can be concluded that the hypothesis can be partly accepted. Further research would be needed to prove this fully.

## 7. Conclusions, recommendations and discussion

In this chapter the conclusion is written by answering the main question of this thesis. The recommendations and discussion is written after answering the main question.

## 7.1 conclusion

I answered the sub questions in chapter 6. I can answer the main question now.
"How can teachers at X improve at multi-grade teaching?"
During my observations, I mentioned that there was a lot of difference between the teachers of how they cope with multi-grade teaching. I mentioned in this research before (paragraph 6.1) that the teachers of grade 4,5 and 6 were using one book for all grades. I concluded that the teacher of grade 5 and 6 can improve at multi-grade teaching to use different books for both grades. In paragraph 6.3 are three different graphs of mistakes made by the learners. The mistakes of the learners declined when I used books for every different grade. I concluded after this lesson, that some exercises were also too difficult for the learners of grade 6 . Resources are good and easy to use, but resources are not always useful. Sometimes it is easier to work with the same themes (AOB, n.d.). However, it is important that there is always a difference between the level of the grades. I mention this, because learners of grade 6 learned more on school, then grade 5 so far. AOB (n.d.) mentioned that teachers do not have to stick to the resources. Teachers have to be aware of the difference between the grades. They have to differentiate between the grades, because differentiation optimise the learn progress of the learners (Universiteit Utrecht, 2015).

The teachers of the school told me that one of the challenges they face during multi-grade teaching, is time. They do not have enough time to help individual learners or administration. I concluded that using instructional strategies effects the time of the teacher. The teacher does not always have to help to learners, so the teacher has time to do other things. The teacher should not always have to split the class, but they also can work from each other (Wouda, 2017). Peer teaching is an advantage for the teacher, because the teacher has more time for individually learners during peer teaching.

## 7.2 recommendations

Based on practical and theoretical study, I collected some recommendations of how teachers at $X$ can improve at multi-grade teaching.
$>$ Do not stick to the resources, but be aware of the difference between the grades.
$>$ Use different books for the grades. It is useful to look to the resources and look for the same themes. The teacher can combine the grades and let them participate to the same theme at a different level.
> Be aware of 'dead time'. Leaners get bored when they do not have something to do.
> Be clear about the exercises the learners have to make an do always have extra exercises when they are done.
> Implement instructional strategies. In the beginning costs it some time, but when the learners get used to it the teacher can have a lot of advantage of it.
$>$ Let the teachers all use the same lesson plan. The teacher can include differentiation between grade in it.
$>$ Help each other to cope with multi-grade teaching. The teachers can learn from each other.

Further research can lead to a research about the motivation of the learners. I saw in observations that the motivation of the learners influence the way of teaching. Further research can lead to more understanding about the work pressure of the teachers.

## 7.3 discussions

This research has yielded some questions and discussion points. Those questions and discussion points are mentioned below.

I did the observations and interviews with the three teachers and in three different classes. The practical part of the research (teaching) is only done in grade 5 and 6 . When I did the practical part in all grades, the results could have been different. In addition, I taught the lessons I designed for this research. The results could have been different if their own teacher taught the lessons. It is possible that the learners were more task engaged when I taught, because I was an unknown teacher for them. Also the plan was to look at the results of more learners, but many learners did not show up during my lessons. So I made the choice to carry out the results of fewer learners.

The language and culture of the principal, the learners and the teachers differed from my language and culture. We had to get used to each other. There are a lot of cultural differences. I had to take some time, to make sure that I understood and respected the culture of the school. This influenced the research. It delayed the practical part of the research. In addition, it can be possible that we did not understood each other correctly during the observations, interviews or conservations we had.

## 7.4 reflection and evaluation

When I was in Holland, I made a plan for a research I could do here in South Africa. I did not know anything about the education in this country and I did not know where I would do my research. When I came in South Africa and during my visits to the school, I realised I did not pick the right subject for a thesis. I was interested in another subject, so I switched my subject in to multi-grade teaching.

I made this decision in the first two weeks, so I had enough time to work on my research proposal left. First I had to get used to the school and the way of teaching and the culture at the school. I had to taught some lesson, without knowing, because of a mis understanding between me and the principal. At the school, I worked on my research proposal. The principal helped me a lot and X also. He gave me a lot of feedback. I could send him work every day. He always gave feedback.

The transport was not always good to the school. The school is in a rural area. I had to drive with the principal. The principal was always there, but Stenden sometimes forgot to bring me to the principal. So I had to change my schedule a lot. This made it difficult to collect data sometimes.

I learned a lot of this research process. It was a wonderful experience to look at a Farm School and to taught English lessons. It was interesting to hear about the difficulties the school has to cope with. Sometimes I thought of the schools in Holland. I could not compare this and I did not understood why it is like this in South Africa. Every child deserves good education according to me. I learned a lot of making a thesis, but I also learned a lot on a personal level.

## Summary

This research took place at $X$. It is a farm school in a rural area. During my first visits to the school. I heard and saw that the work pressure was very high on $X$. I concluded by doing observations and interviews that one of the reasons was multi-grade teaching. Because of the teacher shortage, the teachers have to teach multi-grade classes. Out of my interviews I concluded that the teachers did not had training for this. This research focused on how can teachers improve at multi-grade teaching at this school. This research tried to write a recommendation for the teachers to cope with multi-grade teaching.

The literature study showed that multi-grade teaching is more demanding than mono-grade teaching in South Africa (South Africa department of education, 2006), because national curricula are made for a mono-grade approach. According to an education survey of the Netherlands (2018) multi grade teaching places great demands on the didactic skills of the teacher. According to the survey, multi grade groups are groups consisting of at least two grades. It is difficult for teachers, because they have to focus on many things: The quality of the instructions, the participation of the learners and classroom discipline. There are ways to cope with multi-grade teaching. According to Wouda (2017) and Berry (n.d.) peer teaching is a way to handle multi-grade teaching, but according to Universiteit Utrecht (2015), differentiation is important, because differentiation optimise the learn progress of the learners.

During my observations and interviews, I saw and heard that teachers used one book for two or three grades. I was interested in the affect of using different books. In addition, I designed three lessons: two lessons with using one book for two grades and one lesson with using two books for two grades. I compared the results with each other. I concluded that using different books for different grades, have a positive influence at the number of mistakes.

The literature study showed that there are some ways to deal with multi-grade teaching. I gave some lessons to try this out and I did a literature study to use this in my recommendation.

This research shows that the teachers can improve at multi-grade teaching by using the correct books for the grades and to implement instructional strategies.

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## Appendix 1 Logbook

| Date | Process |
| :---: | :---: |
| First module | In the first module I started to design my research proposal. The principal of the school helped me a lot. I talked a lot with her and I learned a lot about the problems of the school. I could write the problem analysis. Hennie helped me with appropriate resources for the theoretical framework. It was difficult for me to start with the theoretical framework, because I had a wrong resource firstly. It was an old resource. I red it, but it was not appropriate for my research. I received appropriate resources of Hennie. After this, I could start my theoretical framework again. |
| $\begin{aligned} & \text { 15-10 until } \\ & 21-10 \end{aligned}$ | I got an college of X about data analysis. I understand how I have to analyse my data, so I started with the observations. I send it to $X$ and received feedback. I learned how to start with analysing. <br> I woke up with a new idea for my research. I did some observations and I concluded that the teachers don't use the books that are available for each grade. They use books of one grade, for the whole class (for more grades). I have an idea to give a few lessons. I would like to give lessons to grade 5 and 6 . I have an idea to give some lessons, using only the books of grade 6 and I give some lessons, using books for grade 5 and 6 . I want to compare the exercises afterwards. <br> I talked about my idea to $X$ and after that conversation, I realised that I have to give the same instruction for both grades, when I only use books for grade 6 and that I have to give different instructions when I use books for both grades. <br> I gave my first 'real' lesson. I didn't realise me before that the learners aren't motivated. I have to motivate them constantly. The way of teaching is different. I am a very strict teacher in here. It is necessary to be strict. I'm not the same teacher as in Holland. <br> I had a conversation with X . I received feedback for my thesis. I have to read more theory. |
| $\begin{aligned} & 22-10 \text { until } \\ & 28-10 \end{aligned}$ | I received an article from X. I red this article and add it to my theoretical framework. I asked $X$ for feedback. He said that I have to make logical sub chapters. I made this and $X$ also red it for me. X added some comments. I learned from this, that I had to write clear for myself, but also clear for the reader of the thesis. <br> I finished my theoretical framework. |
| $\begin{aligned} & 29-10 \text { until } \\ & 4-11 \end{aligned}$ | I gave lessons at my school to grade 5 and 6 . I learned a lot about teaching at this school. The learners were not motivated and it was difficult to let them do what I wanted. I made reflections of the lessons. I had a meeting with $X$. He helped me with how to organise data. I decided to organise it to split it in four: observations, interviews, exercise results and instructional strategies. By doing this, I knew how to start with chapter 6. |
| $\begin{aligned} & \text { 5-11 until } \\ & 11-11 \end{aligned}$ | I finished chapter 3,4 and 5 fully. I learned how to write a hypothesis, or not to write it (it is not fully possible at this thesis). Hennie helped me with this. I organised these chapters to make it clear for the reader. X helped me with this. She red the chapters after I organised it. |
| $\begin{aligned} & \text { 12-11 until } \\ & \text { 18-11 } \end{aligned}$ | I started and finished chapter 6 of my thesis this week. I looked at the results of the data. I made graphs with using excel. X helped me with this. I took a thesis of a student who did her research in X last year, as an example. It helped me as well. I learned how to analyse data. |

19-11 until This week I finished my presentation and my thesis. I learned how to make a conclusion by asking $X, X$ and $X$ for feedback. They helped me a lot to make a good conclusion.
I learned to write a conclusion with using the theory and I learned to write an recommendation. $X$ helped me with my presentation.

## Appendix 2: Observation schedule about strategies

## 'What strategies are teachers at X implementing to manage MG? ‘

Date:
Grade: Subject:

| Question | Observation | Answer |
| :--- | :--- | :--- |
| Do all learners receive <br> attention? |  |  |
| Does the teacher use <br> appropriate resources? |  |  |
| Does the teacher pays <br> attention for both grades? |  |  |
| Do both grades get the <br> same instruction? |  |  |
| Do the learners understand <br> the exercises correctly? Are <br> the exercises to difficult? |  |  |

## Appendix 3: Observation schedule time- management

Date:
Grade:
Subject: $\qquad$

| Observation | Time | Time | Time | Time | Time | Total |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Traditional education |  |  |  |  |  |  |
| Grade......... |  |  |  |  |  |  |
| Grade......... |  |  |  |  |  |  |
| Individual attention |  |  |  |  |  |  |
| Teamwork |  |  |  |  |  |  |
| Working individually |  |  |  |  |  |  |

What do I mean with:
Traditional education: The teacher gives instruction or talks to the whole class.
Grade.......: The teacher gives instruction to this grade.
Grade.......: The teacher gives instruction to this grade.
Individual attention: The teacher gives instruction to one learner or the teacher helps a leaner.
Teamwork: The learners have to work in couples or in groups.
Working individually: The learners works in individually.

## Appendix 4: interview

| Which grade(s) do you teach? |  |
| :--- | :--- |
|  |  |
| Did you receive any special training for multi <br> grade teaching? |  |
| What do you like most about your job? |  |
| What are the challenges in your class? |  |

## Appendix 5: observation during lesson

| Question | Observation |
| :--- | :--- |
| Do the learners understand the teaching <br> strategy? |  |
| Are all learners active during the lesson? |  |
| Are all learners involved during the <br> strategy? |  |
| Do the learners like it? <br> (found out during the evaluation of the <br> lesson) |  |
| Are the learner finished with their work <br> quickly/ in time? |  |


[^0]:    X,
    November 2018

