Research dissertation

Cooperative learning

Name student: *Marije Idzinga*

Student number: *319597*

Assesor: Mr. Masterson Chipumuro

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Preface

This research is written and executed by Marije Idzinga.

I am a fourth year teacher student at Stenden Leeuwarden and, for this research, currently studying in South Africa. The reason for me to study is South Africa was to explore new cultures and for me to gain more life experience.

Living and studying in South Africa has been a great adventure and has not only resulted in a research dissertation but also in an experience that I will take with me for the rest of my live.

This research dissertation is targeted for the teachers of Grade 5 A of the Kuyasa Combined School and any other person that is interested in cooperative learning and its many aspects.

For doing research at the Kuyasa Combined School I want to thank the teachers and the learners of Grade 5 A at the Kuyasa Combined School. Besides I want to thank Sietkse Okkema for being a great support during the teaching practice. I also want to thank Mr. Masterson Chipumuro for being a good lecturer and a support during the research. And last but not least I want to thank Grand Tour and Stenden South Africa for making this amazing experience possible.

Marije Idzinga

Port Alfred, 25th of November 2016.

Summary

The education in Grade 5 A of the Kuyasa Combined School is teacher centred and the effective learning time of the learners can be improved. Patterns that occur during the lessons have a negative effect on the learners effective learning time. The main question of this research is:

> *To what extent can cooperative learning, using classroom management, advance the effective learning time in Grade 5 A of the Kuyasa Combined School?*

And the goal of this research is to improve the effective learning time in Grade 5 A by using cooperative didactical structures and classroom management.

Trough literature study a hypothesis is formulated. In the hypothesis is stated that when using good classroom management time can be gained and this time can effectively be used for cooperative teaching with didactical structures. Based on the theory a lot of effective learning time can be gained by the use of didactical structures.

To come to results a few data collecting methods have been used. An observation form is made and used to observe the task orientation of the learners in the initial and the new situation. Questionnaires have been filled in by the teachers of Grade 5 A to gauge their knowledge. And lessons have been given to create a new situation where in observations could take place.

The conclusion, deriving from the results, is that the effects of cooperative learning using classroom management has advanced the effective learning time for the strong and the average learners. The weak learners did not benefit from the new situation, when only looking at the effective learning time.

The discussion gives reasons for the differences between conclusion and the hypothesis. The learners of Grade 5 A of the Kuyasa Combined school did not possess al the social skills that were needed for applying successful cooperative learning. Working with cooperative didactical structures is something that has to be trained. And as Kagan *(2014)* mentioned; has to be applied in small steps. The hypothesis was based on the theory found in the theoretical frame work and the practice was not taken in consideration.

The following recommendations have been emerged from the conclusion and discussion:

- **The use of lesson formats:** to gain structure within lessons.
- **The use of (easy) didactical structures:** to promote independent processing and so effective learning time.
- **Using fitting classroom management:** to create a positive and safe learning environment.
- **Working with Teambuilders and Classbuilders:** to improve the social skills of the learners.

1. Introduction

There is a remarkable difference between South African and Dutch primary schools. Not alone do South African schools have much less resources, they also have a different way of teaching. This is what I can conclude from the observations I have done at the Kuyasa Combined School in Grade 4 up to and including Grade 7. What I have noticed is that there is much less interaction between the learners in the classrooms of the Kuyasa Combined school than with the learners in the Netherlands. This can also be called teacher centred education. Teacher centred education is in contrast with the interactive learning that is leading in the Netherlands. In interactive learning there is a lot of interaction between the learners in class. So this approach can also be called learner centred.

This doesn't mean that the Dutch educational system is more favourable than the South African, that can only be proven by research. It solely shows that in the Netherlands there is more knowledge about different teaching methods and the benefits of them.

We know for example that children can also learn from each other instead of the teacher alone. Learning from each other, also called cooperative learning, knows a lot of benefits and can thereby increase the effective learning time. The effective learning time, is the time the learner is task-oriented and so actually developing him/herself. I have noticed that, because of the receptive education, the effective learning time is much less in South African than in the Dutch primary schools; where there is mostly interactive education. Therefore, using a teacher centred approach may cause negative effects on the progress of the learner's development.

Studies have shown that interactive education, and therefore cooperative learning, can increase the effective learning time. That is why the main subject of this research will be cooperative learning and the increasing of the effective learning time will be the goal. This research will take place in Grade 5A at the Kuyasa Combined School. With my knowledge about cooperative learning and good classroom management I want to show the teachers what the possibilities are and how these can positively affect the learners. So that, hopefully, the effective learning time of the learners will increase. Because every child has the right to good education.

2. Problem analysis

Through observations (see appendix 1) I have noticed that there is mostly receptively taught and so the education is teacher centred. Because of this, and other factors, the effective learning time of the learners is short. This can eventually lead to little or no progress in the learner's development.

The magnitude of the groups is big and so are the differences in level. For example, I have seen that most groups contain learners who are not able to read and/or write. If there is solely being taught receptively, then these learners will not have any progress in their development. The education is not being adapted to the magnitude of the groups and the level differences that are present in these groups. Through this, al lot of effective learning time is being lost.

By analysing the observations (see appendix 2), patterns in the practical problem came to the surface:

- No interaction (both between teacher and learner as between learners among each other);
- No processing of the content;
- No introduction at the beginning of the lesson;
- No proper ending of a lesson;
- The teacher leaving the classroom during the period/ the teacher not being on time;
- The duration of the lessons is too short;
- There is no clear organization during and between the periods;
- The content of the lesson is not getting picked up by the learners.

Every subject is thought by a different teacher and they all have a different approach on teaching. Therefore, the problem occurs in several subjects, with several teachers and in all the groups. During observations (seen appendix 1) I have noticed that in almost every lesson there are moments that the learners are not working effectively and in some lessons the learners are not working at all.

The school is involved with this problem because of the lack of resources and the magnitude of the groups. The teachers take their part because of little to none knowledge they possess about different ways of learning. The learners are involved because they receive the education and therefore they experience the problem. Besides, I am involved also, for I am motivated to improve the situation.

The research will be held in Grade 5A of the Kuyasa Combined School. Every Grade knows several teachers, because the teacher is not bound to a group but to a subject. So in every group the same problem occurs. The reason for choosing Grade 5A is that most teachers of the intermediate phase teach in this group.

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3. Theoretical framework

The theoretical framework offers sufficient support to guide further specification of sub-questions and at a later stage the contents of the research instruments. In this chapter the connection to the problem analysis is developed further. This is described within five subjects:

- The schoolsystem of the Kuyasa Combined School
- Cooperative Learning
- Effective learning time
- Classroom management
- Activating direct instruction model (ADIM)

3.1. The schoolsystem of the Kuyasa Combined School

3.1.1. How does the schoolsystem of the Kuyasa Combined School work?

The Kuyasa Combined School was established in 1992 through the initiative of the African National Congress. Because there were no facilities available at first, Kuyasa Combined School shared these with the Dambuza Lower Primary School. Approximately 860 learners where registered in the first year and 18 educators were engaged. The first years the Kuyasa Combined School was a primary school but later on the school expanded to include secondary education as well. As Kuyasa has new premises, the collaboration with Dambuza came to an end in 2002. Nowadays the Kuyasa Combined School has over 1100 learners taught by a staff of 25, including the principal.

Figure 1: *Mission and vision of the Kuyasa Combined School*

Vision

Strives to provide quality education that will create opportunities for its pupils.

Mission Statement

Our mission is to:

1. To develop a curriculum that will respond to the needs of the country and advancing technology.

2. To engage our learners in task that will encourage confidence, independence, responsibility, creative and critical thinking.

3. To create a safe environment in which each learner develops physically, spiritually and intellectually.

4. Motivate our members of staff to be supportive, dedicated and goal oriented when doing their task as educators.

5. Build close co-operation and partnerships with educational institutions, private businesses, private donors and community based organizations.

Values

1. *Discipline*

2. *Accountability*

3. Commitment

4. Honesty

5. Mutual Respect

Goals

1. To prioritize and protect academic time.

2. To provide regular and meaningful communication regarding the capabilities and performance of each learner

3. To enhance the quality of learning.

(Kuyasa Combined School, 2016)

The Kuyasa Combined School provides education from Grade R until Grade 12. Children start going to school at the age of six. The period from Grade R until Grade 3 is called the foundation phase. In Grade 4, when the learners are nine to ten years old, the intermediate phase starts. The intermediate phase is completed at the end of Grade 7, and from there on the learners are in their senior phase; also known as secondary school.

In the foundation phase, the learners are solely being taught in Xhosa. From Grade 4 and on, in the intermediate phase, all subjects are being taught in English. Therefore, English is the first additional language of the learners.

The subjects that are being taught:

- English
- Xhosa
- Social Science;
- Geography
- History
- Natural Science
- Mathematics
- Life skills
- Arts and Culture
- Sports

A teacher at the Kuyasa Combined School is not bound to a group but to a subject and sometimes even more than one. That is why the school has a general schedule, that contains 7 periods from each 55 minutes. The school starts at 8 AM and ends at 2 PM. On Friday the periods only last 45 minutes so the school is out at 1 PM. After the third period there is a half-our break. In between lessons the children are getting a warm meal, arranged by the school.

Because the Kuyasa Combined school has a magnitude of over 1100 learners, every Grade is divided in to two groups. These groups each contain over 50 learners.

3.2. Cooperative learning

3.2.1. Why cooperative learning?

When you look to the different approaches of instruction there are a lot of methods available for teachers to use. Because there are so many methods I have chosen to divide these into three overarching approaches. These include: teacher centred approach, cooperative learning and independent processing. And these approaches, again, could be divided in two columns: teacher centred approach and learner centred approach. Where in cooperative learning and independent processing would fall under learner centred approach. Because we want to use a method that is most beneficial for all the learners; and will increase the effective learning time. In this chapter the pros and cons of the different approaches are being described and they are being compared to each other.

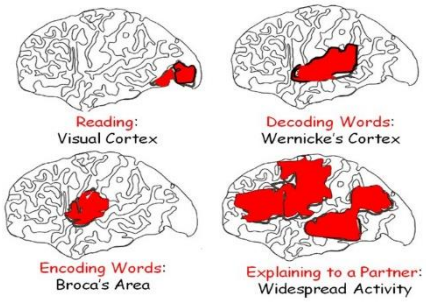
In teacher centred education, the focus is on the teacher. The teacher speaks while the learners are solely listening. The learners work alone during the processing of a lesson. A pro of this method is that the learners are quit and the teacher has control over the class and, the activities and the content. Opposite there are also disadvantages: the learners all learning on the same level and the learners are not allowed to express themselves and in that way they cannot direct their own learning (*Concordia University, 2016).* A definite point of discussion of this approach is the question: are the learners actually learning?

With independently processing the teacher is still speaking but the learners also have an input. Independently processing means that the learners process the content the teacher has handed to the learners during the instruction of the lesson. The learners are working, without the teacher being directly involved. The pros for this approach are that the children learn to solve problems on their own and the teacher has free time to support the weaker learners (*Wij-leren, 2014).* The con of this approach is that the teacher has les control over the content of the learners. And still the question remains: are the learners actually learning?

The purpose of cooperative learning is that the weak and the strong learners are working together. The learners are being divided in, so called, heterogeneous couples or homogeneous groups and are being motivated by several cooperative didactic strategies. In this way, the learners are discussing about the content and explain the new received information to each other or searching for a solution together. And thereby complement each other. This way of processing information is known to have positive effects on the learners' progress. The thought behind cooperative learning is, that both the weak as the strong learners benefit from it. The weak learners, because they get extra explanation and motivation from a peer. The strong learners, because they understand the content at a higher level if they explain it to others. With cooperative learning not only the content is of importance but even more the collaboration between the learners. There is therefore a cognitive and a social purpose. The thought process of cooperative learning is, that the learners not only learn from the interaction with the teacher but also from the interaction with each other *(leraar24, 2009)*.

If we now go back to the question: Are the children actually learning? And comparing these methods by this question, we use the research that is already there. PET scans *(see figure 2)* show that there is significantly more brain activity when there is social interaction about the learning content, then when the processing is done independently, let alone that the processing is being done by the teacher *(Kagan, 1985)*. As Kagan *(2014)* also

Figure 2: ***PET scans social interaction***



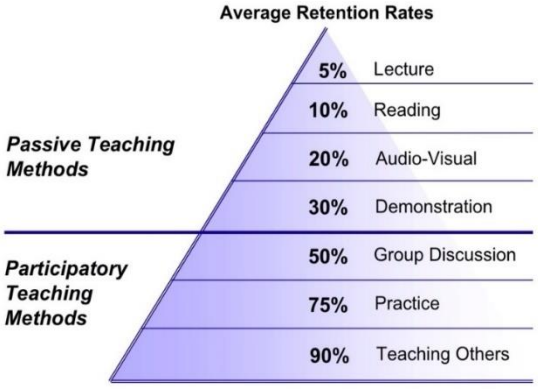
(Cramlington, 2011)

states: involvement is not a metaphor but a state of activity in the brains. If we want the learners to perform better, they have to be actively involved.

Figure 3 of the National Training Laboratories also illustrates how effective it is for learners to "do", if it comes to learning and remembering the content.

So with these two theories we can conclude that the cooperative learning, and so learner centred, approach would be the most beneficial method for the learners and their effective learning time.

Figure 3: *Learning*



National Training Laboratories (2016)

3.2.2. The seven keys to success

According to Kagan *(2014)* there are seven keys to success to become a master in working cooperative learning strategies. But for successful application not all keys are necessary. In fact, a teacher can implement some didactical structures in their lessons with great ease, without the knowledge and skills of the other keys. The advice that Kagan *(2014)* gives is that the teacher should begin with a few simple didactical structures. This will already show that the children are more enthusiastic, more involved and that the results will improve. Thereafter, the teacher can improve their skills with using the seven keys to optimise the effectivity. In this chapter the seven keys to success *(Kagan, 2014)* are briefly being explained.

Key 1: Didactical structurese

A didactical structure organizes the education in a class. Simply said, a didactical structure is a way to create and organize interaction between the person in a classroom. A structure describes the relationship between the learner and the teacher, the content and the way interactions are structured. A didactic structure has no fixed learning content and is repeatable. Over and over new content can be linked to a didactical structure, and in that way create a new learning experience. Put in other words: a didactical structure can contain any learning content. There are over 200 didactical structures that can be used in cooperative learning. The key is to start small, and begin with easy structures. Then when everyone is familiar with the structure, introduce a new one.

Key 2: Teams

Within cooperative learning, the class is being divided in groups. These cooperative "teams" are featured to have a strong and positive team identity and ideally consist four people. These teams stay together for a longer period of time. The team members should get to know, accept and support each other. To form these teams is one of the key skills the teacher has to possess. There are four types of cooperative teams:

- *Heterogeneous:* A heterogeneous team is mixed. It is a reflection of the group. The team can represent the strong, weak and average learners. But can also be mixed by gender or different cultures.
- *Homogeneous:* Heterogeneous groups are deliberately not mixed and are sorted by level, gender or different cultures.
- *Random:* Groups that are being formed randomly. By the teacher or with a game.
- *Chosen by learners:* The teams are being formed by the learners themselves.

Kagan *(2014)* states that every type of teams has its pros and cons. Still heterogeneous teams have his preference. Because this guarantees that at least one member of the group is a strong learner, which promotes tutoring. In this way there is no winning or losing team. Using heterogeneous teams also promotes the multicultural proportions, the interaction between boys and girls. The differences between capacity, cultural background and sex brings balance in the composed skill level of the teams. This levelling factor also leads to equal group -processes and -products.

Key 3: Management

Managing a class that is divided in teams, requires a few skills that are not necessary in traditional education.

Noise can be a problem when working in teams. Because interaction between learners is a must, it is inevitable. The cure is to have a clear and effective silent signal. This ensures that the learners quickly stop talking and focus on the teacher. The layout of the classroom has been put so that the learners can easily form groups but also can turn their chair to the teacher quickly. Next to tricks to help cooperative learning easier there also have to be guidelines and rules to make a lesson run smoothly. More elaborate information about classroom management is found in chapter 3.3.1.

Key 4: Classbuilders

Classbuilders are activities that make a class a safe environment where in learners want to learn. It gives learners with different backgrounds and experiences an opportunity to grow in to a caring community where every individual can learn actively and effectively. In chapter 3.2.3. a reference is made to the pyramid of Maslow, reflecting the importance of Classbuilders.

Key 5: Teambuilders

Teambuilders are activities with the same purposes as Classbuilders, only now for the team. Trough Teambuilders the learners get to know each other, develop a team identity, learn how to mutually support each other and respect each other's differences. If team members know each other well and trust each other, they want their team to succeed and so help each other. When a teacher uses Teambuilders, you create sympathy, trust and caring. Research *(Kagan, 2014 p. 4.8)* has shown that nearness causes interaction and interaction causes familiarity and this will lead to similarity and sympathy.

Key 6: Social skills

The need for education is social skills partly depends on the characteristics and backgrounds of the learners and partly on the cooperative strategies the teacher is using. If the cooperative strategies are limited to only structured interactions, there is no need for extra attention on social skills. But if complex strategies are being used, learners need to learn how to listen to each other, to solve conflicts, to manage, to stay task orientated and to keep on encouraging and respecting each other. Kagan (*2014)* names a few social skills and strong characteristics that are of importance when practising cooperative strategies:

- Active listening
- Respecting others
- Ask for help
- Elaborate on others ideas
- Caring
- Solve conflicts
- Come to an agreement
- Cooperate
- Handle diversity
- Encourage others
- Help
- Leadership qualities
- Patients
- Taking perspective
- Respect
- Responsibility
- Share, exchange

Key 7: Basic principles (EIPS)

There are four basic principles that are of importance for successful cooperative learning:

1. Equal participation

   If the learners are participating actively, then they process the content, are involved and they are learning effectively. When they are not participating the chance of learning is much smaller. That is why in cooperative learning everyone has to participate. Because of the interaction that takes place within a team, every learner has to cooperate.

2. Individual accountability

   When a learner is not accountable for its own actions, it will not always lead to good achievements. Then some learners do all the work and the others will profit from it. That is why every learner must be accountable for him- of herself within every cooperative strategy. Working together does not mean that the learner can hide behind the fellow team members.

3. Positive interdependence

   When working in a team everyone has to do good to create a successful end product. So every learner in the team helps the other learner to do good, for the bigger cause. This also makes that the team members need each other to reach a goal and become successful. Working together is a must and only by working together they can have success. So in that way the learners are motivated to help and support each other.

4. Simultaneous action

   Simultaneous action means that the learners are not only participating equally but also frequently. In a research John Goodlad *(1984)* showed that in a class in average 80 percent of the time the teacher is speaking. And because there is also time needed for

management; less than 20 percent of the time is left for the learners to speak. Within cooperative didactical structures it is a must that every member in a team can speak frequently.

3.2.3. Theories that support cooperative learning

There are two social learning theories that explain why cooperative learning is a successful method. Both methods differ in many aspects, and still both support the basics of cooperative learning.

The power of demonstrating

Albert Bandura *(1977)* formulated a social learning theory that emphasises on observational learning, or so called "learning trough imitation". It is a given that we look at other people, and if there being successful in what they are doing, then we imitate them. When a teacher only explains content orally, it will have less success than actually demonstrating the content. People are also more likely to imitate a person that they have an affinity or a bond with.

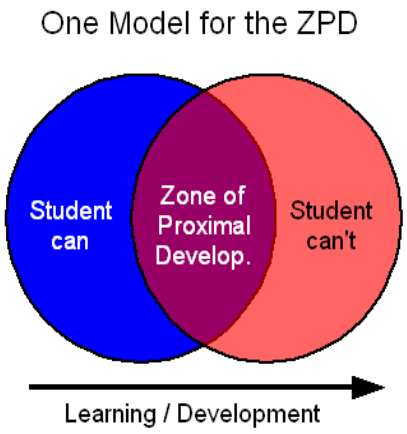
It is proven that when a person watches when someone is performing a certain act, that person uses the same neurones in its brains as when it would perform the act him- or herself. This example of mirror neurones explains the power of observational learning *(Kagan, 2014).*

This social learning theory supports cooperative learning because when working in heterogeneous groups there is a stronger and a weaker learner. In chapter 3.2.2. there is spoken about teams and the way the team members can help and support each other. But when looking to this social theory there is also another reason for making heterogeneous groups: they can imitate each other. The social theory states that we automatically imitate successful people, and so the chances are that the weaker learner will imitate, and so learn, from the stronger learner. To support this observational learning, the team members should have an affinity or bond with each other. Because, as stated earlier, a person would more likely imitate another person they have an affinity or a bond with. This comes back in cooperative learning in the aspect Teambuilders *(see chapter 3.2.2.)*, where in bonding in a team is the goal.

The power of mediation

Lev Semenovich Vygotsky *(1978)* developed a different social learning theory. This theory is primarily based on mediation instead of imitation. Vygotsky (1978) states that people learn because they are being taught. This sounds obvious, but this theory explains clearly the positive outcomes cooperative learning has.

Figure 4: *Zone of Proximal Development*



(Vygotsky, 1978)

Vygotsky's theory makes clear that successful learning takes place when there is being taught within the zone of proximal development. In figure 4 a model shows how the theory of the zone of proximal development works. The blue, purple and pink zones represent the areas where in a learner finds his- or herself in. These zones also represent the degree of difficulty the learner can handle. When the degree of difficulty of a task is easy, and the learner can do this task independently, the learner finds him- or herself in the blue zone. Giving task to that specific learner in this area is useless; because the learner already knows how to

perform these tasks. The pink zone, is the zone where in the degree of difficulty is too high for the learner. The tasks are too difficult, even when the teacher explains the content. Teaching that particular learner in the pink zone is also useless, because the learner is simply said not ready for it. The learner does not possess the necessary foreknowledge and skills yet. In the purple zone, the zone of proximal development, is the zone where in the learner cannot perform the task independently, but can perform the task if the he or she gets help or education. In Vygotsky's theory this couching and teaching is called mediation. Mediation in the zone of proximal development is very useful. Because in this area lays the learning ability of the learner. That is why every form of instruction has to take place in the zone of proximal development of the learner.

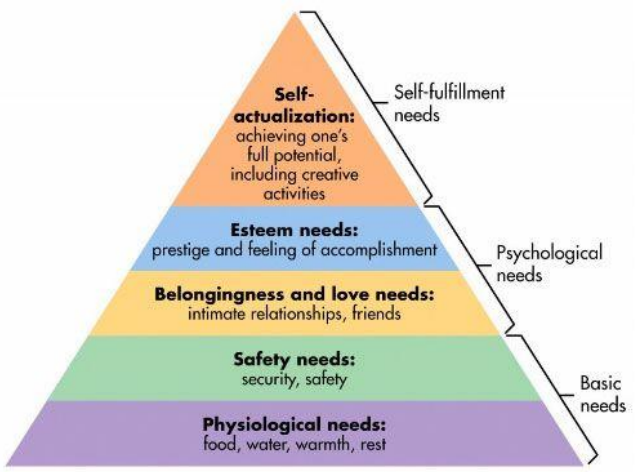
In cooperative learning, didactical structures are being used. These structures are developed, so that every learner can work in their own zone of proximal development. Next to that, every didactical structure contains cooperative aspects. So as broader explained in chapter 3.2.1. the learners help and support each other. This, in Vygotsky's theory, would be called mediation.

The pyramid of Maslow

Next to the two important social theory's that support cooperative learning, there is a motivational theory that is very important for not only cooperative learning but for education itself.

Abraham Maslow *(1954)* suggested that every human primarily has to provide in their fundamental needs before they are able to fulfil their need to grow. In a way, this is obvious: If we are hungry we go look for food and the need for example learning how to read is then less important. In this theory Maslow went further and developed a "hierarchy of needs". This was made in to a pyramid model where in the first needs of a human form the base of the pyramid, and this builds up to the top of the pyramid where the higher needs are placed. In Figure 5 you can see the different levels and its aspects in Maslow's pyramid.

Figure 5: ***The pyramid of Maslow***



(Maslow, 1954)

Maslow's hierarchy explains that when learners, for example, not feel safe, they spend their energy firstly on fulfilling these shortages. In that way there is no energy and so no primary need to learn. So before a teacher wants to teach the learners, he or she first has to be sure that the first needs of the learners have been fulfilled. The basic needs are then of great importance. There after come the psychological needs, where the teacher as well as the fellow learners play a great part in. The top of the pyramid contains the self-fulfilment needs. Both the psychological and the self-fulfilment needs can be fulfilled by different keys of the basics of cooperative learning found in chapter 3.2.2.

3.3. Classroom management

3.3.1. What is classroom management?

A teacher is the manager of his or her group. He or she is using organisational skills, such as planning, organizing, coordinating, leading, control and providing communication. In this way a teacher creates conditions wherein instruction and learning activities are valuable and successful.

Classroom management is a way to create a safe atmosphere. Only then learners can actively, with pleasure and commitment, learn and develop themselves. Good classroom management creates a situation, so that successful education can take place. With classroom management a teacher has overview on the group and can divide his or her attention between multiple tasks. This makes a teacher clear, consistent and balanced.

Good classroom management takes in account the educational needs of the learners. Every child is different and has, therefore, different needs. The education must be adapted, so, that all learners are given enough attention and time to learn. It is also important that the learners know that they are responsible for their own learning process; learning can only be done by themselves. Trough making them responsible for their own learning process, they will become involved and motivated learners.

Classroom management is focused on creating a positive working environment. Trough making rules and agreements, possibly together with the learners, the teacher prevent certain problems and events. In this way the teacher clarifies any possible situation, not only for him or herself but also for the learners. The teacher is alert and consistent, and is capable to intervene directly when order disturbances take place. As I mentioned earlier, a teacher has to divide his attention between multiple tasks; explaining new contents, take corrective measures, monitor the progress of the lesson and help learners individually. Classroom management makes this possible for the teacher.

Classroom management is of importance because it makes sure that every learner is getting the most active learning time as possible by preventing interruptions in the lesson.

I have mentioned that rules and agreements are of great importance for good classroom management, but also the arrangement of the classroom is important. In arranging of the classroom there is a distinction made between instruction space, walking space, and material space. When the classroom is arranged in a right way, the learners experience a positive working environment *(Klamer-Hoogma, 2012).* When it comes to management of a cooperative learning environment the management can be divided in three aspects: the management of time, the management of attention and the management of noise *(Kagan, 2014).*

3.4. Effective learning time

3.4.1. What does effective learning time mean?

Effective learning time literally means: the time that learners are effectively learning. Learners can learn in different contexts. For instance, a learner is learning when the teacher is giving instruction. But the but learner is also learning when he or she is making an assignment. Therefore, we assume that a learner is learning effective when he or she is being task orientated. If, for example, the teacher is giving instruction and the learner is listening or is taking notes, then the learner is being

task orientated. So when the learner is not doing what is expected of him or her, he or she is not being task orientated and therefore not learning effectively.

A lot of effective learning time is being lost because of poor classroom management. The effective learning time can be increased trough these measures:

> The teacher must ensure that every learner can work on their task and can continue working. This means that all needed materials are laid out prior to the lesson. Rules and agreements, about little things, such as sharpening a pencil, can also prevent interruptions in the lesson.
>
> The teacher should make clear within the instruction what the learner must do when working independently. When the learner is waiting for help or is already done with the task, the teacher has to provide extra work to prevent losing effective learning time.
>
> Consciously drop by learners who are having concentration or start-up problems. A teacher can help this learner by helping them organize the task, making agreements or rewarding them when they are doing well.
>
> Make sure that the learners can concentrate in the lesson. In the beginning of the day or after a break the learners can take up more information because they are more concentrated. If it's not possible to plan important lessons at this point of time; start with an energizer to activate the learners.

In short, effective learning time can be increased by effective instruction, good classroom management and meaningful processing assignments *(Onderwijsgek, N.D.).*

3.5. Activating direct instruction model (ADIM)

3.5.1. What is the activating direct instruction model?

Every teacher has different instruction behaviour. Some teachers are giving more successful and effective instruction than others.

An effective instruction cannot take place without careful planning and effective time management. The build-up of the lesson has also an influence on its effectivity. To help teachers prepare an effective and successful lesson with a good build-up, several models have been designed.

One of those models is the activating direct instruction model, also called ADIM. This model is based on the socio-constructivist learning psychology. Wherein active learning and knowledge construction are centred. The idea of this learning psychology is that new information sinks in better if it is linked to existing knowledge.

In the activating direct instruction model the teacher and the learners go through the steps of the learning situation in an interactive way. This model is structurally build-up in seven phases:

1. *Review.* The learning activity starts with the retrieval of foreknowledge and/or previous work.
2. *Orientation*. The teacher presents the subject of the lesson. He or she gives a lesson out plan and mentions the timetable and the goal of the lesson. It is also meaningful to name the importance of the content.

3. *Instruction.* In small steps the teacher explains the content.
4. *Guided practice*. Under guidence of the teacher the learners practice the newly given content.
5. *Independent processing*. In this phase the learners work independent on their given task.
6. *Evaluation.* After the task is completed, the teacher evaluates the lesson together with the learners. Let the learners name positive and negative aspects of the lesson, their own behaviour and of the outcome. Together you check if you have achieved the goal of the lesson.
7. *Review and preview.* The teacher places the lesson in context to the other lessons, and mentions the follow-up activity.

Trough activating the learner, they become more involved. And involvement is needed, to come to learning. To increase the learners' involvement even more, it is advised to use cooperative learning within this model. In every phase a different cooperative teaching method will be fit *(Naafs, F., Oord, I. van den. & Leenders, Y. 2010).*

4. Problem Statement

This chapter lists de main and sub questions of the research. Also the key terms of the main question are clarified. And the choices for the sub questions are explained. Based on observations and literature, the hypothesis of the research is discussed. I have presented the main and sub questions to my first assessor, Mr. Masteron Chipumuro, and discussed the boundaries of the research with him.

4.1. Main question

*To what **extent** can **cooperative learning**, using **classroom management**, advance the **effective learning time** in Grade 5 A of the Kuyasa Combined School?*

Key terms:

Extent. How much can the effective learning time in Grade 5 A of the Kuyasa Combined school be improved through cooperative learning, compared to the initial situation.

Classroom management. The use of management to improve the education and save time *(see chapter 3.3.1.).*

Cooperative learning. A way of teaching, using cooperative teaching methods, whereby children are mostly learning from each other *(see chapters 3.2.1. and 3.2.2.).*

Effective learning time. The time a learner is actually learning, thus task orientated *(see chapter 3.4.1.).*

4.2. Sub questions

1. ***To what extent is the learning time effectively in Grade 5 A of the Kuyasa Combined School?***
   - Trough answering this question I have a clear picture of the initial situation. This will be the initial measurement; the information is going to be used for comparison to the new situation.
2. ***To what extent is the learning time effective during cooperative lessons in Grade 5 A of the Kuyasa Combined School?***
   - By answering this question, the effective learning time of the new situation is shown.
3. ***Which didactical structures fit with the needs and possibilities of Grade 5 A in the Kuyasa Combined School?***
   - Not all didactical structures can be used in Grade 5 A of the Kuyasa Combined School because of the few resources and the magnitude of the groups. This question will answer which type of structures are appropriate to be used in Grade 5 A of the Kuyasa Combined School.
4. ***Which measures to classroom management, appropriate to the needs and possibilities, can contribute to a cooperative learning environment in Grade 5 A of the Kuyasa Combined School?***
   - The magnitude of the group, the few resources and other factors make that adapted classroom management is needed. This question gives an answer to which factors

should be taken into account. And which classroom management is suited for the specific situation.

4.3. Hypothesis

As shown in the theoretical framework *(chapter 3)* multiple (social) theories confirm or support the cooperative learning strategy.

Research from the National Training Laboratories (2016) show that between 50% and 90% of the content will be remembered by the learner when participatory teaching methods are used. Cooperative learning is working with didactical structures that focusses on: equal participation, positive interdependence, individual accountability and simultaneous action. All aspects fit the participatory teaching method where in group discussion, practice and teaching others belong to.

When using good classroom management time can be gained and this time can effectively be used for cooperative teaching with didactical structures.

Based on the theory a lot of effective learning time can be gained by the use of didactical structures.

5. Research Strategy

This chapter describes the target group and its sub groups, the collection method and te design activities. The choices are substantiated.

5.1. Target group

The target groups of this research are the teachers and the learners from Grade 5 A at the Kuyasa Combined School. I have chosen to divide the learners into three sub groups: the weak, the average and the strong learners. This because cooperative learning is to teach heterogeneous; a strong and a weak learner are put in groups together so they can learn from each other. Dividing the learners into these sub groups gives a clear picture of the improvements, both with that of a strong, an average and a weak learner. The total group of learners counts over 50 children, but I will only observe six; two of every subgroup. The other target group are the teachers; this group consists of 5 persons.

5.2. Collection method

To collect data, I will use observation forms, questionnaires and literature. Sub question 1 will be answered through taking questionnaires from the teachers. By doing observations of the learners in the initial situation and doing them after the introduction of cooperative learning, I will be able to formulate a clear answer to sub question 2 and Sub question 3. Sub questions 4 and 5 will be answered by trial and error giving cooperative lessons and by reflecting on these lessons. Throughout answering the sub questions I will refer to the theoretical framework that can be found in chapter 3.

Below is a description of the collection method per sub question:

1. Observing the learners on their effective learning time. The learners are divided in three sub groups. This observing form can be found in appendix 3. It will show the effective learning time in percentages of each sub group; weak, average and strong. The outcomes of these observations will be put in graphs and will be analysed.
2. Observing the learners on their effective learning time during cooperative lessons. Using the same form *(see appendix 3)* as used for sub question 2. The outcomes of these observations will be put in graphs and will be analysed in the same way as the results of sub question 1.
3. By giving cooperative lessons and reflecting on them *(see appendix 5).* We get to know by trial and error which type of didactical structures are appropriate. Because the teachers play great role in the education in this situation, a questionnaire *(see appendix 4)* is administered to measure the already present knowledge and skills.
4. Using the same method *(see appendix 5)* as with sub question 4 and with applying classroom management beforehand *(see appendix 6)* we get to know which classroom management is necessary to come to successful cooperative learning.

5.3. Design activities

- Recommendations on classroom management and the use of cooperative didactical structures to increase the effective learning time.
- A model to plan cooperative lessons.
- Samples of didactical structures that are appropriate to be used in grade 5 A of the Kuyasa Combined School.

5.4. Timetable

The timetable shows in which weak what sub question is being answered trough using the data collection methods mentioned in chapter 5.3.

	Week									
Sub questions	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**
To what extent is the learning time effectively in Grade 5 A of the Kuyasa Combined School?										
To what extent is the learning time effective during cooperative lessons in Grade 5 A of the Kuyasa Combined School?										
Which didactical structures fit with the needs and possibilities of Grade 5 A in the Kuyasa Combined School?										
Which measures to classroom management, appropriate to the needs and possibilities, can contribute to a cooperative learning environment in Grade 5 A of the Kuyasa Combined School?										

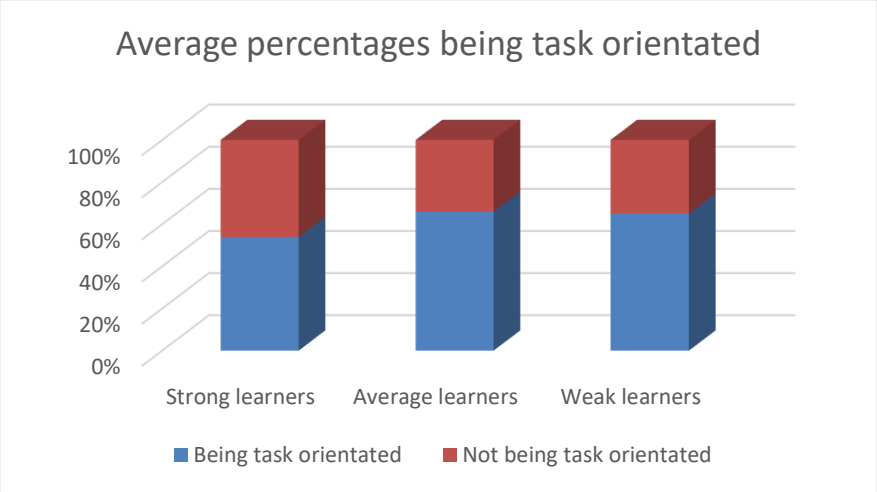
5. Results

In this chapter the collected data is being analysed. Also the difference between the plan for data collection and processing and its execution is described. Before starting the research at the Kuyasa Combined School, a letter about the expectations of the internship is handed out to the head of department *(see appendix 8)* and a letter of approval is signed by the principal *(see appendix 9).*

5.1. To what extent is the learning time effectively in Grade 5 A of the Kuyasa Combined School?

For answering this question, I used the observation form that can be found in appendix 9. I divided group 5 A in three level groups: strong learners, average learners and weak learners. I gave every learner an icon corresponding with their level. The strong learners got a star, the average learners got a cloud and the weak learners got a moon (see appendix 6.4). In a time span of three weeks I randomly observed lessons in grade 5 A. Each observation I chose two learners of the same level and observed their effective learning time throughout that lesson. Important note is that I observed every minute and watched if the learner was being task orientated. It does not in any way state that the learner is actually learning.

Figure 6: ***Average percentages of initial situation***



As shown in figure 6 the strong, average and weak learners almost have an equal percentage of being task orientated. These averages where have emerged from the graphs found in appendix 10. This graph shows that on an average the strong learners are being for 54% task orientated in a lesson in the initial situation, the average learners are for 66% being task orientated in the same situation and the weak learners are for 65% task based in a lesson of the initial situation. Of course these numbers are averages and as shown in appendix 10, there are exceptions.

Overall, if you take the average percentages, the learners are being task orientated more than 50% of a lesson. And all the levels (strong, average and weak) are almost equally task orientated. The strong having the less percentage of being task orientated.

However as earlier stated these results only show the learners task orientation but not if they are really learning effectively. When looking at the descriptions of the observations *(see appendix 11),* we see that the same patterns occur stated in the problem analysis *(see chapter 2):*

- No interaction (both between teacher and learner as between learners among each other);
- No processing of the content;
- No introduction at the beginning of the lesson;
- No proper ending of a lesson;
- The teacher leaving the classroom during the period/ the teacher not being on time;
- The duration of the lessons is too short;
- There is no clear organization during and between the periods;
- The content of the lesson is not getting picked up by the learners.

5.2. To what extent is the learning time effective during cooperative lessons in Grade 5 A of the Kuyasa Combined School?

To observe the effective learning time, by looking at the task orientation, of different learners and giving lesson at the same time, all cooperative lessons *(see appendices 5.1, 5.2 and 5.3)* where filmed to be observed in a later stage. To later compare the results of the new situation to the results of the initial situation, the same observing form is used *(see appendix 3).* Also to ensure the quality of the results the same strategy is used and the observations were taken at the same frequency.

Figure 7: ***Average percentages new situation***

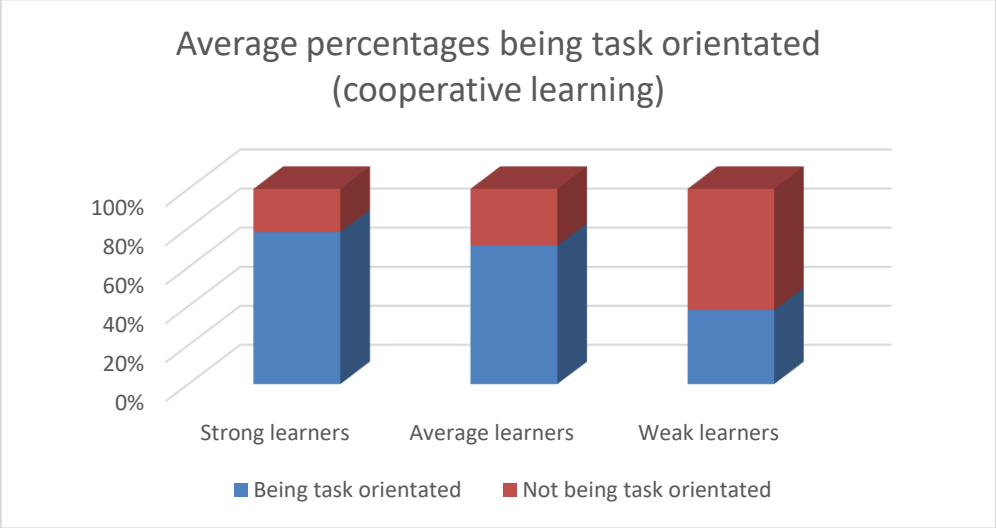


Figure 7 shows the average percentages of the new situation, who have emerged from the graphs in appendix 13. Just as in the initial situation the strong and the average learners have almost the same average percentage of being task orientated. On the other hand, the weak learners have much less task orientation.

In the new situation, the average of the task orientation of the strong learners is 78% and the average learners have an average task orientation of 71%. The weak learners are being task orientated for an average of only 38% of a lesson.

As stated in chapter 5.1, a learner being task orientated does not mean that a learner is actually learning and the learning time being effective. But if we look at the lessons and reflections of the lessons found in appendix 5, we see that al the patterns that where present in the initial situation, where not there in the new situation. In the new situation, every cooperative lesson given has a clear beginning and ending. The content is cooperatively being processed, and so there is a lot of interaction among the learners. The organisation of the lesson is clear and as seen in figure 8; the content of the lesson is being picked up *(see appendix 5).*

Figure 8: ***quote of a reflection***

"After the lesson we played with the flash cards classically, the learners where involved and really picked up the content of the lesson."

(Appendix 5.2.2.)

5.3. Which didactical structures fit with the needs and possibilities of Grade 5 A in the Kuyasa Combined School?

Answering this question there were two parties involved: the teachers and the learners. To find out the needs and the possibilities of the teachers, a questionnaire was completed by the teachers. And to fit the needs and possibilities of the learner, cooperative lessons have been given and has been reflected on. In total three cooperative lesson where given, these lessons can be found in appendix 5 along with the reflections of these lessons. All lessons where given through trial and error; when a lesson did not work out as hoped, I shortened the lesson and then tried it the next time. I adapted to the rate of the learners. This means each reflection is a summary of multiple attempts.

The data collection of the questionnaire was poor. After handing out questionnaires to the teachers, only three questionnaires were handed in within three weeks. For this reason, the results cannot give a complete view on the teachers need and possibilities. The information that can be drawn out of the questionnaires *(see appendix 14)* is that the teachers have basic knowledge about cooperative learning, classroom management and about activating instruction. Of the three filled in questionnaires only one teacher indicates that he or she is using independent processing in his or her lesson.

By trial and error during the cooperative lessons with several didactical structures the qualities of the learners came to the service. Kagan *(2014)* stated that a learner has to possess certain qualities to make cooperative learning a success (see chapter 3.2.2.). Some didactical structures can be given by the teachers, because they possess the qualities needed to give cooperative education. However, the learner must possess qualities also to fully profit from the didactical structures. The reflections on the cooperative lessons *(see appendices 5.1.1, 5.2.2 and 5.3.1*.) show the qualities and weaknesses of the learners.

Below is the list of qualities one learner must possess to fully profit from cooperative learning. The red qualities the learners of Grade 5 A do not possess, and the green colours do the learners of Grade 5 A possess.

- Active listening
- Respecting others
- Ask for help
- Elaborate on others ideas
- Caring
- Solve conflicts
- Come to an agreement
- Cooperate
- Handle diversity
- Encourage others
- Help
- Leadership qualities
- Patients
- Taking perspective
- Respect
- Responsibility
- Share, exchange

The structures that are used during the cooperative lessons *(see appendix 15):*

- Two talk
- 3,2,1, show!
- Round talk
- Round talk, agree and wright down
- Flash cards

The structures mentioned above, fit the needs and possibilities of the learners. As Kagan *(2014)* mentioned that when starting with cooperative learning, you have to start with small steps and so easy didactical structures. The didactical structures used in the lessons for Grade 5 A where easy to follow, and needed the qualities that the learners already possess: active listening, respecting others, caring, come to an agreement, handle diversity, patients, respect and leadership.

When applying other, more complicated, didactical structures this also acquires the qualities asking for help, elaborate on others ideas, solve conflicts, cooperate, encourage others, help, taking perspective, responsibility and share. To gain these qualities Classbuilders and Teambuilders can be used *(see chapter 3.2.2.).*

5.4. Which measures to classroom management, appropriate to the needs and possibilities, can contribute to a cooperative learning environment in Grade 5 A of the Kuyasa Combined School?

This question is also answered by trial and error of giving cooperative lessons applying classroom management *(see appendix 6).* Through this the need of management in these lessons would show. The needs and possibilities of both the teachers as the learners has been taken in consideration.

Kagan *(2014)* describes three important aspects of management in a cooperative learning environment: Management of time, management of noise and management of attention. In Appendix 6 these three aspects are extended with several examples of classroom management that can be applied directly in the practice.

In appendices 5.1.1, 5.2.2. and 5.3.1. is described how the learners react to the applied classroom management. The reflections show that, when the management is consequently applied that the learners react positive to it *(figure 9).*

Figure 9: ***Reflections on classroom management***

> *"Beforehand of the lesson, I practiced the silent signal and the attention signal with the learners. Because of that the lesson went more smoothly."*
>
> *"I consequently applied the "three stars" and I saw al learners working together and doing this seriously."*
>
> *(Appendix 5.3.1)*

In chapter 3.3. Klaren- Hoogma *(2012)* states that to create a situation where in learning is valuable and successful there is need of classroom management. The focus has to be on a positive working environment and therefore classroom management needs to be applied consequently. Al kinds of "tricks" can help to realize a positive climate in a classroom for learners to actually come to learning. These tricks should evoke a positive reaction on both the learners and the teacher.

The teachers of the Kuyasa combined school have basic knowledge of classroom management *(see appendix 14).* They know about time managing, rules and agreements and talk about "discipline" and "learning to take place". The teachers already apply classroom management and are doing this consequently. Some tips and tricks, for example the classroom management used in appendix 6, would help the teachers to also create a safe and positive learning environment for the learners.

6. Conclusion, discussion and recomendations

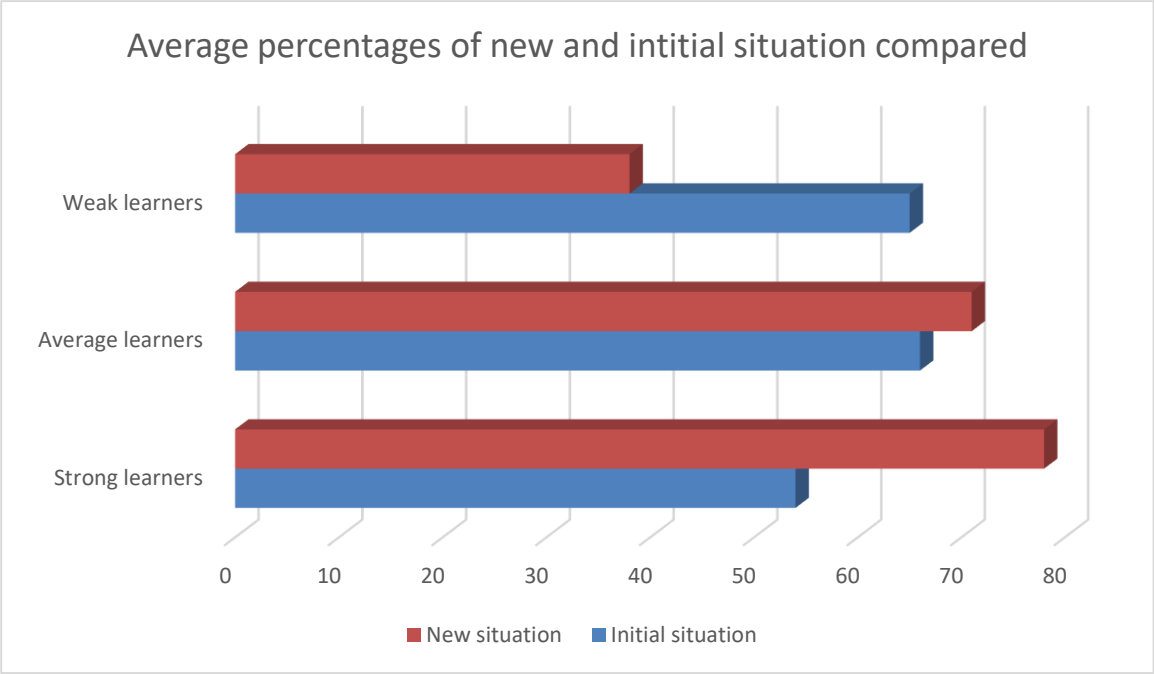
In this chapter the research question is answered. The scope and reliability of the research is taken into consideration. The conclusion is compared to the hypothesis and discussion points are outlined. At last the recommendations are formulated.

6.1. Conclusion

To what extent can cooperative learning, using classroom management, advance the effective learning time in Grade 5 A of the Kuyasa Combined School?

By comparing figure 6 and figure 7 in chapter 5 we find the following information in the graph below:

Figure 10: ***Average percentages of new and initial situation compared***



In figure 10 show that the strong learners gained 24% of effective learning time in the new situation. The average learners gained only 5% of effective learning time and the weak learners lost 27% of effective learning time during the cooperative lessons.

The effects of cooperative learning using classroom management has advanced the effective learning time for the strong and the average learners. The weak learners did not benefit from the new situation, when only looking at the effective learning time.

The new situation was more challenging for the strong learners. When they finished their assignment, there was always a ready assignment. The time they effective learning time they lost in the initial situation, is in the new situation filled in with extra challenges. In this way the strong learners can develop themselves in a faster pace and on their own level.

The average learners coming along with the content and can learn from the strong learners but also teach and help the weak learners in the new situation. Because teaching others make the content

stick better *(National Traning Labaratories, 2016)* in comparison to the initial situation, where in they had little to no interaction with the fellow learners, the effective learning time of the new situation is more valuable.

The effective learning time of the weak learners decreased. This in comparison to the hypothesis was not expected.

6.2. Discussion

The conclusion shows that there has not been a dramatic increase in the effective learning time of the strong and the average learners and that the effective learning time of the weak learners even decreased.

As stated earlier in the hypothesis; this was not expected at the beginning of the research. Looking back, all the theory shows that cooperative learning will have positive effects on the learners effective learning time. This was also confirmed in the hypothesis, not considering the situation in practice. In practice the social skills of the learners are one of the most important keys. Taking that in consideration the results are more realistic than the hypothesis.

The learners of Grade 5 A of the Kuyasa Combined school did not possess al the social skills that were needed for applying successful cooperative learning. Working with cooperative didactical structures is something that has to be trained. And as Kagan *(2014)* mentioned; has to be applied in small steps.

The strong and the average learners benefit from the new situation, not because they had more social skills, but because they were in the zone of their proximal development. The weak learners where not and because of the lack of social skills of all the learners, they did not work together correctly and so could not keep up with the average and strong learners.

6.3. Recommendations

By looking at the results, conclusion and discussion the following recommendations have been formulated:

- **The use of lesson formats:** to gain structure within lessons.
  An appropriate lesson format can be found in appendix 16.

- **The use of (easy) didactical structures:** to promote independent processing and so effective learning time.
  The didactal structures used during the research can be found in appendix 15.

- **Using fitting classroom management:** to create a positive and safe learning environment.
  Tool for classroom management can be found in appendix 6.

- **Working with Teambuilders and Classbuilders:** to improve the social skills of the learners.

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Appendix 1

Observations practical problem

(Words and phrases that give important information about the practical problem have been underlined.)

Observation 1
August 16, 2016 *Period 1*

The teacher enters the classroom and begins writing a text, that is in the workbook, on the blackboard. There after she writes down a few questions for the learners as well. The learners are quit and copy what is on the blackboard in their notebooks. Than the teacher gives the learners the assignment to answer these questions. The teacher leaves the room, and the learners stay quit and keep on writing. Some of the learners are already answering the question. Most are literally quoting there notes as answers. Some children have to look at their notes a lot so they can write down the answer word for word. A boy writes down one word as an answer; a sort of summary of the answer. After a while the teacher comes back, it is almost the end of the period. When the bel rings, a few children come at the desk and buy candy from the teacher.

Observation 2
August 16, 2016 *Period 2*

The learners are getting a lesson of Xhosa, there mother tongue. The teacher starts with writing a few words on the blackboard and pronounces them. The learners are listening and repeat what the teacher says. The teacher is talking constantly and looks around the class. The explanation seems clear. Then a learner is asked to come in front of the classroom and spell a word. The learner can't, so another learner is asked to give the answer. After that the teachers asks the learner, that is still in front of the class, to spell his name. This the learner can. After the instruction the teachers is looking in the learners' notebooks. But only two. Some children wrote down the notes, most of them did not. After 20 minutes the lesson stops abruptly because of the food that is being served. The teacher stays in class when the learners are eating, but there isn't being taught any more.

Observation 3
August 16, 2016 *Period 4*

This lesson is about the weather. This is the third lesson about the same subject. The teacher starts with an introduction and asks the learners what the weather is today. After that the teacher makes a mind map on the blackboard. The learners are asked to think of terms that match the subject. The books are on the table but first have to stay closed. The learners are listening attentively. The teacher is now asking questions about the content they had in earlier lessons. But none of the learners can answer them correctly. The learners have notes of the content and the teachers ask the learners to put these notes in front of them. This introduction of the lesson took ten minutes. Now it is time for classwork, it is an assignment in the workbook and the learners are making it independently. Then the teacher leaves.

Observation 4
August 17, 2016 *Period 1*

The teacher is not in the classroom yet and it is noisy. When the teacher comes, the teacher immediately starts his lesson. The learners are still noisy and meanwhile some learners still looking for their place to sit. The teacher starts with an introduction. It is still noisy. Some learners are correcting the others when they are being too loud. When the teacher is speaking most of the learners are quit. The teacher is repeating the content of the previous lesson. Even though the learners are quit, they are not paying attention. Then he makes the learners sing the national anthem, and everyone is involved and sings loud and clear. After that a learner may come in front and draw the flag of South Africa. The learners al help the learner in front of the classroom. And other learners may colour the flag in. The teacher does not pay a lot of attention to the learner in front of the class. But more to the children who are making noise. After that the lesson is over, the duration was 25 minutes.

Observation 5
August 17, 2016 *Period 2*

All learners have a workbook in front of them. The Teacher starts reading the text to the learners. Then all the learners themselves read the text out loud. One or two learners are not reading with. After reading the text classically, a learner has to come in front of the class to tell where the story is about. And after that another learner. The learners are generally good involved with the lesson. After some learners have been in front of the class, the teacher explains they are going to re-enact the story out in front of the class. It is noisy but all the children are involved. When the re-enactment is finished they are classically making the assignments. This takes a long time, but the learners are involved. In the learners' workbooks are a lot of good assignments, a lot of the assignment weren't filled in.

Observation 6
August 17, 2016 *Period 3*

At the beginning of the lesson the notes are being put on the blackboard. This is happening whilst the learners are eating. If the learners are finished they can write down the notes in their note book. The teacher gives them a time limit. The teacher also explains why they have to write it down and they get tips about writing it down; the teachers tells them to underline the new words. After writing down the notes, the instruction follows. The learners are paying attention, but the content is not explained concretely. The teacher encourages the learners to ask questions.

Appendix 2

Analysing observations

The practical problem is that the teaching method in Grade 5A is teacher centred and the learners have little or none interaction between each other. Because of that the effective learning time is minimal. This may cause negative effects on the learners' progress.

This problem occurs in Grade 5A during almost all the lessons. Mostly at the start and at the end of the lesson. Therefore, I have chosen to randomly observe lessons in a time span of two days in Grade 5A. Every lesson is about a subject and subjects are given in periods; the duration of a period is 55 minutes. When speaking of observations in this chapter, I am revering to the observations in appendix 1.

Date	**Period**
August 16, 2016	*Period 1, period 2 and period 4.*
August 17, 2016	*Period 1, period 2 and period 3.*

While observing, the focus was on the moments the practical problem occurs, how the people concerned react and what the circumstances are. Words and sentences that contain important

In observation 1 is the text, that is already in the learners' book, being copied from the blackboard. In this way the learners are working quietly. But I am wondering if they are really learning. The teacher leaves after explaining the assignment, there is no interaction between teacher and learner and between learners among each other. The way the learners answer their questions already shows that the learners are not picking up the content if they are only copying it from the board.
Likewise, as in observation 1 there is none to less interaction in the lesson in observation 2. Some learners are asked to come in front of the class, but the rest of the class is doing nothing. There are some learners who are being checked on their work, but this can't give the teacher a broad view of the work from the complete class. Just as in the first observation this lesson is abruptly ended and has not taken 55 minutes.
In observation 3 the lesson starts with a good introduction. This also shows in the involvement of the children. Surely the learners still cannot answer a question without looking at their notes. The content that is given to the learners does not stick, even after three lessons. Just as with the other lessons, an assignment is given but there is no interaction and no further processing. The lesson is again not ended by the teacher.
In the lesson of observation 4, the teacher is late in class. But starts right away after entry. There is no structure from the start. That is why it is stays noisy throughout the hole lesson. When the teacher is speaking most learners are quit but not really listening. When the learners get to do something everyone is involved. The lesson is ended by the teacher. The lesson was too short, just as the previous lessons.
The lesson in observation 5 is better organised and the learners are paying attention. The teacher is processing the content classically. A lot of children are involved but because doing everything classically is taking a lot of time, most of the assignments have not been filled in. The learners are listening and paying attention, but it is not certain if they are actually learning if the teacher answers all the questions together with the hole class.

Like most of the lessons in the other observations, there is no introduction in the lesson in observation 6. The organisation is better than in most observations. The teacher lets the learners eat but is already starting up the lesson to save time. The teacher also gives a time limit to the learners. The teacher also mentioned a goal, gave the learners tips and encouraged them during instruction. So in this lesson there is more interaction. Still the content is explained without processing it later.

These observations show the current situation in Grade 5A. The above mentioned relationships between the different lessons and teachers. It clearly shows which problems occur more often than ones. Problems that occur more than ones, may we also call patterns. These patterns show the roots of the practical problem:

- No interaction (both between teacher and learner as between learners among each other);
- No processing of the content;
- No introduction at the beginning of the lesson;
- No proper ending of a lesson;
- The teacher leaving the classroom during the period/ the teacher not being on time;
- The duration of the lessons is too short;
- There is no clear organization during and between the periods;
- The content of the lesson is not getting picked up by the learners.

Appendix 3

Observation form effective learning time

Type of learner:		**Duration of the lesson:**	**minutes**
The Learner being task orientated measured per minute:	*Learner 1*		Total:
	Learner 2		Total:
The learners total effective learning time:	*Learner 1*	*(minutes of being task orientated/duration of the lesson x 100%)* **/ x 100% =**	
	Learner 2	**/ x 100% =**	

Appendix 4

Development of the questionnaire

Goal of the questionnaire	Key concept	Aspects	Questions or statements
After administrating the questionnaire, I have data that reflects the knowledge and skills the teachers already have.	Cooperative learning	General knowledge	The teacher has heard of the term cooperative learning. The teacher knows the key elements of cooperative learning.
		Cooperative teaching methods	Does the teacher use cooperative teaching methods? Which methods are being used?
	Classroom management	General knowledge	What aspects belong to classroom management according to the teachers?
		In practice	What classroom management is applied?
	Teaching models	In practice	How does the teacher prepare a lesson? Does the teacher state goals for the learners? Does the teacher use a teaching model?
		Activating direct instruction model (ADIM)	The teacher knows the model. The teacher uses the model.

(Donk, C. van der. & Lanen, B. van, 2013)

Questionnaire

Which subject(s) do you teach?

……

What education did you follow in order to become a teacher?

……

Have you herd of the term “cooperative learning” before?

- *Yes*
- *No*

If yes, can you shortly explain below what you think the key elements of cooperative learning are.

……
……
……
……

Do you use cooperative teaching methods in your own lessons?

- *Yes, always*
- *Yes, sometimes*
- *No*

If yes, which cooperative teaching methods do you use?

……
……
……
……

The teacher is the manager of the group; what aspects do you think belong to classroom management? Write down below. For example: rules and agreements.

……
……
……
……
……
……
……

What classroom management do you apply in practice? Write down below.

……
……
……
…….

Do you use an instruction model to prepare a lesson?

- *Yes, always*
- *Yes, sometimes*
- *No*

If no, how do you prepare a lesson?

……
……
……
…….

Do you state a goal for the learners before giving a lesson?

- *Yes, before every lesson I have stated a goal for the learners*
- *Yes, sometimes*
- *No*

Which steps do you take during your lessons? Tick those boxes below.

- *Review*
- *Orientation*
- *Instruction*
- *Guided practice*
- *Independent processing*
- *Evaluation*
- *Review and preview*

Have you herd of the activating direct instruction model (ADIM)?

- *Yes*
- *No*

If yes, do you use the activating direct instruction model (ADIM)?

- *Yes, always*
- *Yes, sometimes*
- *No*

Appendix 5

Cooperative lessons and reflection on the lessons

5.1. Mathematics

Date: 19 October 2016	***Subject:*** Mathematics		***Time:*** 55 minutes
Content goal	Adding and subtracting numbers using the expanded column method.		
Didactic goal	Working smoothly in pairs within the time limit.		
Ready	Make up your own addition and subtraction sums.		
Lesson aspect	***Didactic structure***	***Content***	***Notes***
Review		Where does the number exist of? • Ten thousand • Thousands • Hundreds • Tens • Ones	Write table on the blackboard.
Orientation		Where does the number X consist of?	Write in the table. Repeat three times.
Instruction		*Adding and subtracting using the expanded column method.* Exercise 2: 1. a + b 2. a + b	Mention the goal. Classical.
Guided Practice	<u>(twee praat) Two talk</u>	Exercise 2: 1. c + d 2. c + d	Exercise 2: 1. + 2. (4 min.) <u>Two talk (2 min.)</u> Talk in pairs about the answer. Repeat classical.
Independent processing	<u>(laat zien) 3,2,1 Show!</u>	Exercise 2: 3.	Exercise 2: 3. (6 min.) Check each other's work in pairs. (2 min.) *How many good answers?* <u>3,2,1 Show!</u> Make the sum that is written on the board within 1 minute. Then show the rest of the group. Discuss the answer, and choose the correct one. Discuss classical.

Evaluation		How did it go?	*Did we reach the goal?* Think of one Tip and one Top.

(Dr. Kagan, S.& Kagan, M.,2014)

5.1.1. Reflection

The orientation, overview and instruction went well. The learners were listening and most of them were paying attention. Also every learner understood what is was explaining. During the instruction I noticed that some learners weren't paying attention anymore. This was also the problem with the guided practice; most learners found it to easy. Starting the independent processing, I explained thoroughly and checked it with the learners. When they were placed in groups I checked again if everybody knew what the intention was and if al materials where present. When I give the sign to start, I still saw some learners getting their pens and notebooks and I saw some learners not working at all. I paused the lesson and explained the assignment again: now everybody starts working. The strong learners are working hard, I see most weak learners doing nothing. They find it hard to make the sums without help. I walk around and try to help them. When they have to "show" their answer to the rest it is chaotic in class. Again not all learners understand the meaning of the assignment. Then when I pause the lesson again and take more time to explain, the learners go and help each other to get the right answer. They work great together and want to help each other. I walk by and help. I see that some learners want to help, but all they do is give the correct answer immediately or don't give the other learner time to think for itself.

5.2. Natural science

Date: 19 October 2016	***Subject:*** Natural science		***Time:*** 55 minutes
Content Goal	Learn about the movement of the Earth around the sun and find out about the second important movement of the Earth.		
Didactic goal	Work in pairs and groups with different didactic structures. Working with the three stars.		
Ready	(Flitskaarten) Flash cards.		
Lesson aspect	***Didactic structure***	***Content***	***Notes***
Review	(Tweepraat) Two Talk	What do we already know?	Make pairs. And Talk with each other about the subject. (2 min.) Discuss classical.
Orientation	(Rondpraat, consensus & schrijven) Round Talk, Agree & Wright down.	*Learn about the movement of the Earth around the sun and find out about the second important movement of the Earth.*	Mention the goal. Form groups, go through each question, agree and wright down the answer. (10 min) Discuss classical

		Activity 1.	
Instruction		Chapters on pages 162. Keywords.	Read the chapters on page 162 classical. Find, wright down and explain keywords.
Guided Practice		Activity 2: 1. a + b + c	Classical.
Independent processing	(Rondpraat, consensus & schrijven) Round Talk, Agree & Wright down. (Flitskaarten) Flash cards.	Activity 2: 2. a + b + c 3. a + b + c Key words: Flash cards	Form groups, go through each question, agree and wright down the answer. Tasks: • 2 drawers • 1 timekeeper • 1 leader • 1 writer (20 min.) Ready: Flash cards.
Evaluation		How did it go?	*Did we reach the goal?* Think of one Tip and one Top.

(Dr. Kagan, S.& Kagan, M.,2014)

5.2.1. Flash cards Natural science

The path of one object in space around another, such as the path of the Earth around the Sun is called? *Orbit*	**The movement of an object in space around another object, such as the movement of the Earth around the Sun is called?** *Revolution*	**An imaginary line passing through the centre of an object is called?** *Axis*
The movement of an object around itself, such as the movement of the Earth around its own axis is called?	**What does anticlockwise mean?**	**What does clockwise mean?**

Rotation	*Counter to the normal direction of the clock.*	*The normal direction of the clock.*
How long does it take for the Earth to travel around the Sun? *365 days, or one year.*	**In which direction does the Earth move around its own axis?** *Anticlockwise*	**In which direction does the Earth revolve around the Sun?** *Anticlockwise*
How fast does the Earth move in its orbit? *30 kilometres per second, or 108 000 kilometres per hour.*	**Which planet revolves around the Sun?** *The Earth.*	**Which planet revolves around the Earth?** *The moon.*

5.2.2. Reflection

During the review the learners are paying attention, but when they are supposed to do "two talk" they get distracted. After two minutes, when I ask some learners where they talked about, I notice that they did not understand what to do and after practising they still find it difficult to think about a subject without looking in their book. The orientation goes well; it is something they already know a little but now they have to do it together. Time management is difficult. The learners are not used to a time limit and find it difficult to work faster. So when I start discussing the questions I notice that some learners are upset because they are not done yet, I explain that we discuss the question classically and it is no problem when you are not finished yet. Then with independent processing, the same didactic structure is used. The learners immediately start working together. I see some groups working very hard and good. In a few groups some learners are sitting on the side, I correct this by noticing the behaviour of the complete group and repeating the assignment. When the learners are done, they may play with the flash cards. Two groups did play with the flashcards. It was a success; even the weak learners where actively participating. After the lesson we played with the flash cards classically, the learners where involved and really picked up the content of the lesson.

5.3. English

Date: 1 November 2016	***Subject:*** English	***Time:*** 55 minutes

Content goal	Reading informative and descriptive texts. Talking about and answering questions about an article. Giving an opinion with a reason. *(Term 4 – weeks 3 – 4, A different kind of learning)*		
Didactic goal	Working together in a group. Where in tasks are divided equally and everyone is participating. Working with the three stars.		
Ready	Make a drawing with the poem.		
Lesson aspect	***Didactic structure***	***Content***	***Notes***
Review		What do you do before reading a text? • Read the title • Look at the pictures • Ask the question where you think the text is about.	Write the steps mentioned, on the blackboard.
Orientation	(Tweepraat) Two talk	Follow the steps before reading the text.	Two talk (2 min.) Talk in pairs about the article, following the steps on the blackboard.
Instruction	(rondpraat) Round talk	*Reading informative and descriptive texts. Talking about and answering questions about an article. Giving an opinion with a reason.* The text in the workbook. Talk about your own extramural activity.	Mention the goal. Divide the groups. Read the text classical in the different groups. Round talk (5 min.) Talk in your own group about your extramural activity. After 5 minutes, discuss this classical.
Guided practice		Answering the questions in the workbook.	Answer question 1 and 2 classical.
Independent processing	(Rondpraat, consensus & schrijven) Round Talk, Agree & Wright down.	Answering the questions in the workbook.	Round talk, agree & wright down (20 min.) Answer the questions together with your group.
Evaluation		Talk about the answers in the workbook.	The groups are answering the questions.

(Dr. Kagan, S.& Kagan, M.,201

5.3.1. Reflection

Beforehand of the lesson, I practiced the silent signal and the attention signal with the learners. Because of that the lesson went more smoothly.

The review started good and the learners where paying attention. During the orientation, the learners where doing a two talk about the text. With a correction of not reading the text first, it went well. But when I asked the learners where they taught the text was about, no one dared to answer. After some examples, one learner gave an answer. Then the learners where reading the text in groups, because of the game factor every one paid attention and read with. After that the learners work in groups on their assignment. I consequently applied the "three stars" and I saw al learners working together and doing this seriously. Time management is a problem; learners are not used to work with a time limit. So during the evaluation the bell rings.

Appendix 6

Classroom management

6.1. Management of attention

Attention signal

A signal that will get the attention of the learners. I used a clapping signal and said the following line while clapping along as well:

“If you hear me: clap ones.”

“If you hear me: clap twice.”

“If you hear me: clap three times.”

6.2. Management of noise

Silent signal

A signal that is clear to all learners, and makes them stop talking and correcting each other to stop talking. I raised my hand and waited for every learner to raise their hand. The learners who did this right away get a “high five”. This only works if the teacher uses it consequently and with clear rules. The rules I used:

- Stop talking when raising your hand.
- Stop what you are doing.
- Correct others.
- Look at the teacher.

When it is really noisy I first use the attention signal, before using the silent signal.

Whispering

When you have got the attention and everyone is silent, but you notice that some learners are wondering away or are going to start talking I tried to get their attention again by whispering. The learners want to hear what I am saying but now have to listen really carefully.

6.3. Management of time

Timer

When the learners get a task give them a time limit, to save time and for them to learn to manage their own time. After explaining the task give the learners a time limit and set the timer. If It is possible, make the timer visible for the learners and tell them every once in a while how much time is left.

Ready assignment

Always have an extra assignment ready for the fast learner(s). This assignment often matches the subject that is being taught.

6.4. Other management

Differentiation

To easily divide a group in heterogeneous groups first divide them in level groups. I divided the group in three different levels: the strong learners, the average learners and the weak learners. To make this clear for the teacher and the learners, without the learners knowing at what level they are, I gave them an icon of a star, cloud or moon. The Star represents the strong learners, the cloud the average and the moon the weak learners. The list of Grade 5 A divided in these three level is shown in figure 8.

Figure 8: *Group list Grade 5 A*

EASTERN CAPE DEPARTMENT OF EDUCATION

KUYASA COMBINED SCHOOL
GRAHAMSTOWN
Emis No: 200100419

Learner List
2016/10/18

Grade 05, Class: 5A - NG BILI, Sorted Alphabetically

Number	Accession Number	Learner Surname	Learner First Name	Gender	Birth Date (Age)
1	0504245446084	ADAM	Siphokuhle	M	2005/04/24 (11'06)
2	0506296044080	BALAKISI	Lathitha	M	2005/06/29 (11'04)
3	0501111028087	BALISO	Viwe	F	2005/01/11 (11'10)
4	0412045339089	BANGISI	Chulumanco	M	2004/12/04 (11'11)
5	0410090736084	BOKIE	Athimna	F	2004/10/09 (12'01)
6	0411250684080	BUDU	Zimvo	F	2004/11/25 (11'11)
7	0512230588083	CHARLES	Elam	F	2005/12/23 (10'10)
8	0602080701082	CWILASHE	Anelisa	F	2006/02/08 (10'09)
9	0605170073080	DAMA	Bulelwa	F	2006/05/17 (10'06)
10	0501109319088	DICKSON	Owam	F	2005/01/09 (11'10)
11	0411066056085	DOBO	Linamandla	M	2004/11/06 (11'12)
12	0507090336086	FOROSI	Sigcobile	F	2005/07/09 (11'04)
13	0601266524086	FUTUSE	Sesethu	M	2006/01/26 (10'09)
14	0606062438084	GOBANI	Amahle	F	2006/06/06 (10'05)
15	0312035450088	GONGO	Silindokuhle	M	2003/12/03 (12'11)
16	0307155889081	HANI	Thethelela	M	2004/09/23 (12'01)
17	030715	HLEKISA	Nkosinathi	M	2003/07/15 (13'04)
18	0512215964085	JAJI	Sokwakhana	M	2005/12/21 (10'10)
19	0405100882084	KAMKAM	Zenande	F	2004/05/10 (12'06)
20	0501205678086	KLAAS	Siyabonga	M	2005/01/20 (11'09)
21	0211296104089	KOLOSE	Sixolisani	M	2002/11/29 (13'11)
22	0408316265086	KOM	Lihle	M	2004/08/31 (12'02)
23	0512236398081	LOMBO	Lelethu	M	2005/12/23 (10'10)
24	0507150218083	LOSE	Asive	F	2005/07/15 (11'04)
25	0409115706080	MACKAY	Okuhle	M	2004/09/11 (12'02)
26	0301250178086	MAKASI	Sandisiwe	F	2003/01/25 (13'09)
27	0302176026086	MANDARA	Bukhole	M	2003/02/17 (13'08)
28	0310315776081	MANELI	Sinethemba	M	2003/10/31 (12'12)
29	0410146072088	MANGI	Bongasi	M	2004/10/14 (12'01)
30	0410235782084	MATINA	Lamla	M	2004/10/23 (11'12)
31	0511215794088	MFINO	Lithemba	M	2005/11/21 (10'11)
32	0507190882088	MOMO	Siyamthanda	F	2005/07/19 (11'04)
33	0605315400081	MTSHIZA	Mpumezo	M	2006/05/31 (10'05)
34	0509271084089	MXUBE	Yonela	F	2005/09/27 (11'01)
35	0505260214083	MXUMA	Alwaba	F	2005/05/26 (11'05)
36	0404265546089	MZIMBA	Athenkosi	M	2004/04/26 (12'06)
37	0512310321082	NDIYANA	Lihlelethu	F	2005/12/31 (10'10)
38	0403010996086	NDLUMBINI	Sinovuyo	F	2004/03/01 (12'08)
39	0403280627086	NGELE	Busisiwe	F	2004/03/28 (12'07)
40	0508060301084	NHANHANHA	Zenande	F	2005/08/06 (11'03)
41	0411095656087	NOKUBIMBA	Siphokuhle	M	2004/11/09 (11'12)
42	0511245716085	NZIMA	Sonwabise	M	2005/11/24 (10'11)

KUYASA COMBINED SCHOOL
GRAHAMSTOWN
Emis No: 200100419

Learner List
2016/10/18

Grade 05, Class: 5A - NG BILI, Sorted Alphabetically

Number	Accession Number	Learner Surname	Learner First Name	Gender	Birth Date (Age)
43	0411185898086	PAYI	Sinethemba	M	2004/11/18 (11'11)
44	0504135924083	QOLOMA	Asiphile	M	2005/04/13 (11'07)
45	0304020527087	SEYISI	Zikhona	F	2003/04/02 (13'07)
46	0503095497080	SIJORA	Esona	M	2005/03/09 (11'08)
47	0304205543081	SITHOLE	Siphesihle	M	2003/04/20 (13'06)
48	0509151257086	SONJEKE	Sihle	F	2005/09/15 (11'02)
49	0605261242081	TWANI	Sinentle	F	2006/05/26 (10'05)
50	0508030686085	TYELEBANA	Zintle	F	2005/08/03 (11'03)
51	0409270634085	TYUTYANI	Achuma	F	2004/09/27 (12'01)
52	0607245780087	VELLEM	Onilwa	M	2006/07/24 (10'03)
53	0411071137086	WILLIE	Ntombizikhona	F	2004/11/07 (11'12)
54	0407090826089	XWAYI	Sinosethu	F	2004/07/09 (12'04)
55	0601211019083	YANTA	Asemahle	F	2006/01/21 (10'09)

Colour groups

After dividing the learners in three level groups, I divided them in eight heterogeneous groups. To make the learners easily remember in which group they belong, I named the different groups after different colours. Then when the learners have to sit in groups I colour a floor map on the blackboard and give every work place in the classroom a colour, so then every groups can quickly and easily see where they have to sit.

Three stars

When working in groups the learners have to work together, help each other and work serious. These are basic rules that all learners have to persist. If they don't, there has to be a consequence. Theretofore I used the "three stars" method. Every group gets three stars, but when they don't hold to the rules one star gets taken away. In this way every group has three changes to work well. To make the learners motivated to keep the stars, you give a reward at the end of the lesson to all the groups who have at least one star left.

Appendix 7

Letter for permission

Kuyasa Combined School
2839 Nkonjane Street
Port Alfred
6170

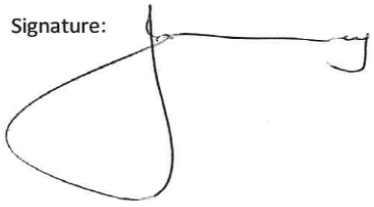
Stenden SouthAfrica

This letter serves to give permission to the student teachers from Stenden do research about cooperative methods and multilingualism at the Kuyasa Combined School. The students are Marije Idzinga, Sietske Okkema and Liesbeth Scheepsma, and they are allowed to do observations, to teach and take questionnaires in every grade. The results of the research will not be published and will only be used for educational reasons.

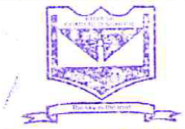
X.J. Mayana (Headmaster)
xj.mayana@gmail.com (Mobile: 0605092998)

Date: 25-10-16

Signature:



KUYASA COMBINED SCHOOL



Headmaster: X.J. Mayana

Date: 25-10-16

Appendix 8

Letter internship at the Kuyasa Combined School

Internship at the Kuyasa Combined School

We are Marije Idzinga and Sietske Okkema. We are fourth and last year teacher's students. In this year we have to do a research in a primary school. We have chosen to do this at the Kuyasa Combined School. We will be staying here till December. The first 10 weeks of the semester we have to make up a proposal for our research. The last then weeks we will be spending doing the research itself. This means that, the first module, you will see us observing in your class but also doing theoretical research. We will be here at Monday, Tuesday and Wednesday till approximately 12 o'clock.

Our expectations:

- We would like to come and observe your classes.
- When we are in your class observing we expect that you'll teach as any other day.
- We would like to have some interviews with you or the learners.
- We would like to receive feedback.
- We are here to learn something from you.

What you can expect from us:

- We are able to give some classes, but only if that will help us with our research.
- You are always welcome to tell us the problems you are confronted with in class, that seem relevant for our research.
- We are willing to help out with extra needs for the learners if necessary.
- You can receive feedback from us as well.
- We will give you updates about the progress of our research.

If you have a problem or an idea where we can help out, please let us know. We are willing to help.

Kind regards,
Marije Idzinga: marijeidzinga@student.stenden.com
Sietske Okkema: sietske.okkema@student.stenden.com

Appendix 9

Observations forms of the initial situation

Date: 13/09			
Type of learner:	Strong	**Duration of the lesson:**	(55) 53 **minutes**
The Learner being task orientated measured per minute:	*Learner 1*		Total: 39
	Learner 2		Total: 16
The learners total effective learning time:	*Learner 1*	*(minutes of being task orientated/duration of the lesson x 100%)* 39 / 53 **x 100% =** 73,58% ≈ 74%	
	Learner 2	16 / 53 **x 100% =** 30,19% ≈ 30%	

Date: 10/10			
Type of learner:	average	**Duration of the lesson:**	36 **minutes**
The Learner being task orientated measured per minute:	*Learner 1*		Total: 24
	Learner 2		Total: 29
The learners total effective learning time:	*Learner 1*	*(minutes of being task orientated/duration of the lesson x 100%)* 24 / 36 **x 100% =** 66,67% ≈ 67%	
	Learner 2	29 / 36 **x 100% =** 80,56% ≈ 81%	

Date: 11/10			
Type of learner: Weak		**Duration of the lesson:**	21 **minutes**
The Learner being task orientated measured per minute:	*Learner 1*		Total: 15
	Learner 2		Total: 16
The learners total effective learning time:	*Learner 1*	*(minutes of being task orientated/duration of the lesson x 100%)* 15 / 21 **x 100% =** 71,43 ≈ 71%	
	Learner 2	16 / 21 **x 100% =** 76,19 ≈ 76%	

Date: 12/10			
Type of learner:	strong	**Duration of the lesson:**	44 **minutes**
The Learner being task orientated measured <u>per minute</u>:	*Learner 1*	𝍸 𝍸 𝍸 𝍸 𝍸 |||	Total: 28
	Learner 2	𝍸 𝍸 𝍸 |	Total: 21
The learners <u>total</u> effective learning time:	*Learner 1*	*(minutes of being task orientated/duration of the lesson x 100%)* 28 / 44 **x 100% =** 63,64 % ≈ 64 %	
	Learner 2	21 / 44 **x 100% =** 47,73 % ≈ 48 %	

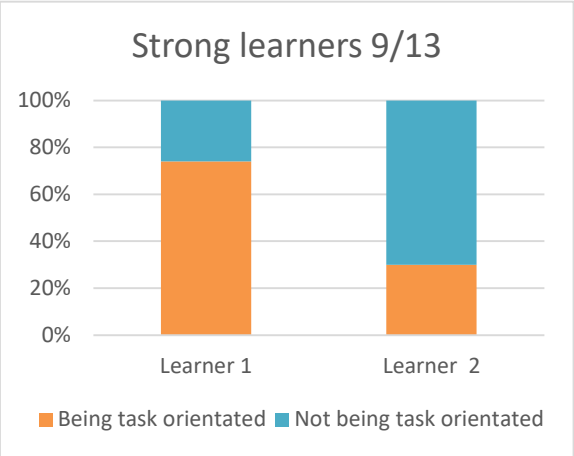
Date: 12/10			
Type of learner:	average	**Duration of the lesson:**	42 **minutes**
The Learner being task orientated measured <u>per minute</u>:	*Learner 1*	𝍸 𝍸 𝍸 𝍸 𝍸 |||	Total: 29
	Learner 2	𝍸 𝍸 𝍸	Total: 20
The learners <u>total</u> effective learning time:	*Learner 1*	*(minutes of being task orientated/duration of the lesson x 100%)* 29 / 42 **x 100% =** 69,05 ≈ 69 %	
	Learner 2	20 / 42 **x 100% =** 47,62 ≈ 48 %	

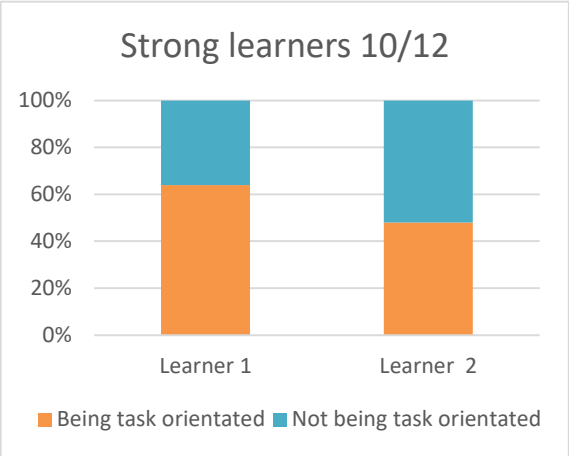
Date: 26/10			
Type of learner:	weak	**Duration of the lesson:**	25 **minutes**
The Learner being task orientated measured <u>per minute</u>:	*Learner 1*	𝍸 ||	Total: 8
	Learner 2	𝍸 𝍸 𝍸 |	Total: 21
The learners <u>total</u> effective learning time:	*Learner 1*	*(minutes of being task orientated/duration of the lesson x 100%)* 8 / 25 **x 100% =** 32 %	
	Learner 2	21 / 25 **x 100% =** 84 %	

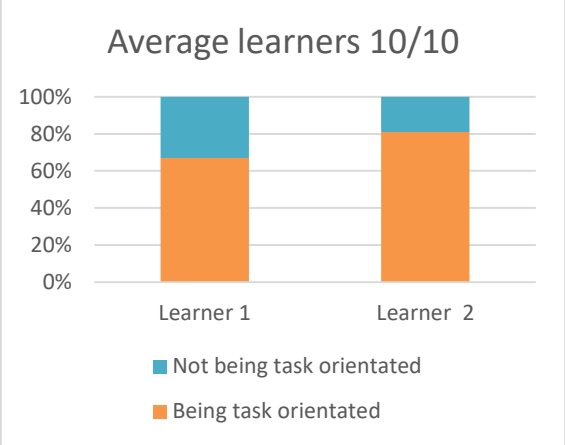
Appendix 10

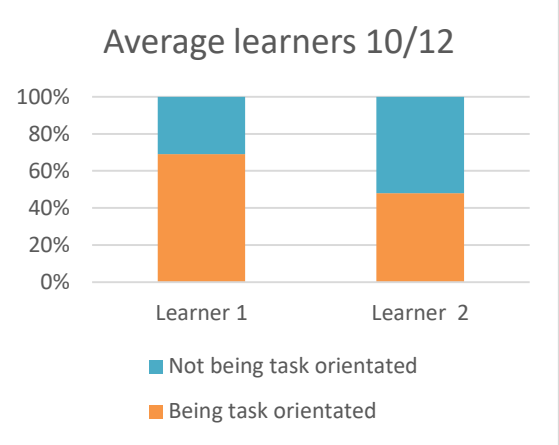
Graphs of the results from the observation of the initial situation

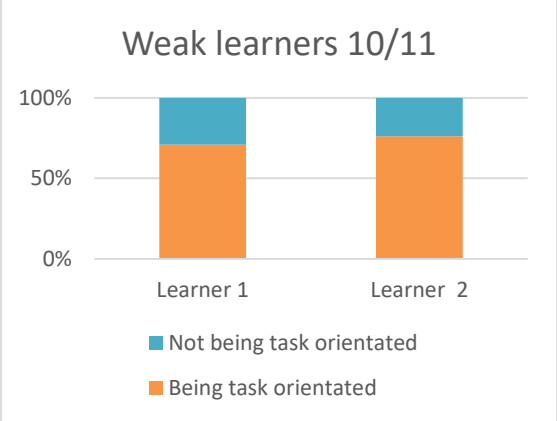
(The observation forms can be found in appendix 9.)

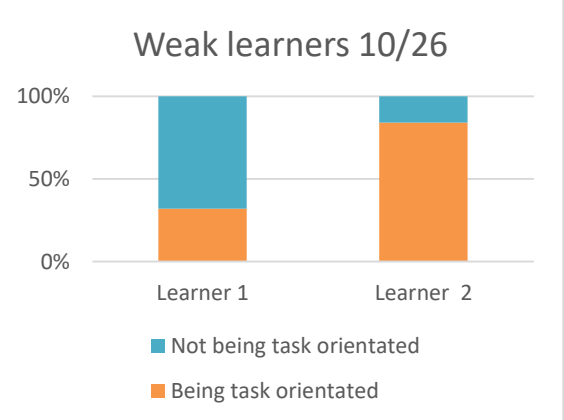












Appendix 11

Descriptions of the observed lessons in the initial situation

Observation 1: ***Strong learners 9/13***

When I enter the classroom the learners are already working on sums that are written on the blackboard. It is ten sums and the children are already working on it for a quarter of an hour. The teacher is standing in the back of the classroom. Some learners consult each other. After 18 minutes another teacher walks in. The learners get their books for the other lesson. First the teacher starts selling candy, then the learners come to the teacher to hand in homework. Learner 1 is now making homework in his/her notebook. Learner 2 is eating candy. After 29 minutes, the teacher is still reviewing homework. It is quit; some learners finish their assignment, some make other homework and the rest does nothing. Learner 1 now stops writing and views his/her notebook. Learner 1 gets another notebook and starts drawing in it. Learner 2 is still eating candy and is quietly looking around the classroom.

Observation 2: ***Strong learners 10/12***

After a couple minutes the lesson starts. Learners 1 and 2 get their notebook and immediately start writing while the teacher is writing on the blackboard. The teacher is repeating the content of the previous lesson. Learner 1 and 2 are vaguely paying attention. The assignment is to make a summary about the content. Meanwhile the teacher is selling candy. The teacher is explaining again and writes something on the blackboard. Immediately the learner start writing again. Now the teacher is done explaining, the learners are quietly writing. Learner 1 and 2 are ready really quick and start chatting with each other. After 35 minutes the bell rings. The teacher is still in class but is not teaching anymore. All learners start chatting and looking around them. Then the same teacher starts teaching another subject.

Observation 3: ***Average learners 10/10***

When I walk in the classroom the teacher is already writing on the blackboard. The learners copy what is on the blackboard in their notebook. When the teacher is done writing, he/she leaves the classroom. The learners keep on writing; it is occasionally a little noisy. Learner 1 and 2 are still quietly writing. Occasionally they talk to each other about the assignment. Then the teacher comes back. And puts one of the learners in another spot, because they are sitting with three at one table. The teacher is walking around and corrects behaviour. When the teacher is speaking all learners listen and stop working. After a few minutes the teachers announces that the learners have to read their notes when they are done writing them. It has been 15 minutes, learner 1 and 2 are still writing. Some learners are already reading. Learner 1 starts reading after 21 minutes. The teacher is leaving the class again, and it becomes noisy. Learner 2 is ready after 25 minutes, but does not start reading. A lot of learners are talking or doing nothing. After a while even some learners start walking around, it is getting really noisy.

Observation 4: ***Average leaners 10/12***

The teacher is walking around, but did not really start the lesson. Learner 1 is getting his/her book, and later learner 2 does the same. The teacher makes some learners swap places. Then the learners search for the right page in the book. The teacher now starts, he/she asks something and then one learners answers. After repeating this a few times, the teacher turns the page and gives the learners an assignment. Learner 1 looks for the page and then closes it. Learner 2 is chatting. After a while learner 1 and 2 leave the classroom; they went to get pens. When the learners are back from getting a pen they start chatting. After a few minutes the start making their assignment. Learner 2 is constantly being distracted. The teacher is speaking to the learners occasionally, then most learners stop working. Learner 1 continuous working, learner 2 listens.

Observation 5: ***Weak learners 10/11***

The lesson starts late. A small amount of learners has their books in front of them. Learner 1 and 2 not. After a while they get them as well. The teacher starts the lesson with handing out checked tests. After 10 minutes the test been handed out and the teacher starts writing on the blackboard. Learner 1 is not paying attention and has his/her book not open yet. Learner 2 is still putting his/her test away and is chatting. The teacher starts stating what is on the board, and the learner are repeating that. Then some learners have to come in front and play a little game. Learner 1 and 2 are paying attention now. After the game Learner 1 is playing with his/her book. Learner 2 is being looking around. The lesson ends after 25 minutes.

Observation 6: ***Weak learners 10/26***

The teacher is not in class yet, and a learner is going away to look for the teacher. The rest of the learners are chatting, some of them look in their notebook. Learner 1 is making homework the first five minutes, then starts talking to another learner. Learner 2 is making a drawing in his/her notebook almost the complete lesson, and sometimes gets distracted by the fellow learners. After 20 minutes the teacher still is not there. Then the sports volunteer comes to get the learners.

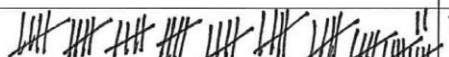
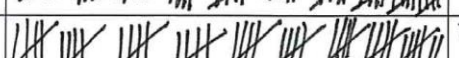
Appendix 12

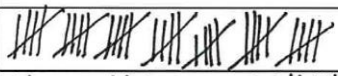
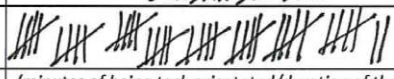
Observation forms of the new situation

Date: 10/19 (Natural Science)			
Type of learner:	Strong	**Duration of the lesson:** 55 min.	**minutes**
The Learner being task orientated measured per minute:	*Learner 1*	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	Total: 40
	Learner 2	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	Total: 32
The learners total effective learning time:	*Learner 1*	*(minutes of being task orientated/duration of the lesson x 100%)* 40 / 55 x 100% = 72,72 ≈ 73%.	
	Learner 2	32 / 55 x 100% = 58,18 ≈ 58%	

Date: 10/19 (Natural Science)			
Type of learner:	Average	**Duration of the lesson:**	55 **minutes**
The Learner being task orientated measured per minute:	*Learner 1*	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	Total: 43
	Learner 2	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	Total: 36
The learners total effective learning time:	*Learner 1*	*(minutes of being task orientated/duration of the lesson x 100%)* 43 / 55 x 100% = 78,18 ≈ 78%	
	Learner 2	36 / 55 x 100% = 65,45 ≈ 65%	

Date: 10/19 (Natural science)			
Type of learner:		**Duration of the lesson:**	55 **minutes**
The Learner being task orientated measured per minute:	*Learner 1*	𝍸 𝍸 𝍸 𝍸	Total: 25
	Learner 2	𝍸 𝍸 𝍸 //	Total: 17
The learners total effective learning time:	*Learner 1*	*(minutes of being task orientated/duration of the lesson x 100%)* 25 / 55 x 100% = 45,45 ≈ 45%	
	Learner 2	17 / 55 x 100% = 30,9 ≈ 31%	

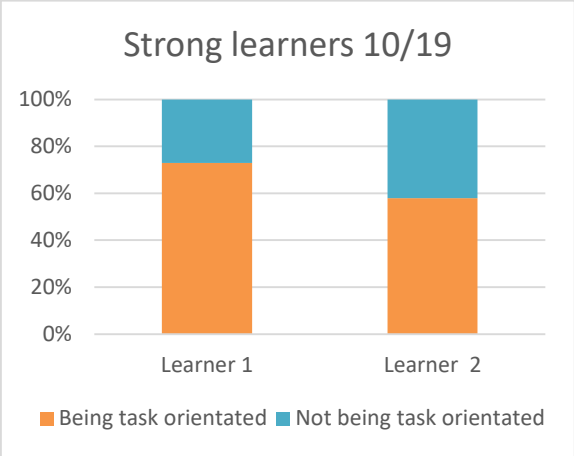
Date: 11/1 (English)			
Type of learner:	strong	**Duration of the lesson:**	55 **minutes**
The Learner being task orientated measured per minute:	*Learner 1*		Total: 52
	Learner 2		Total: 47
The learners total effective learning time:	*Learner 1*	*(minutes of being task orientated/duration of the lesson x 100%)* 52 / 55 x 100% = 94,54 ≈ 95%.	
	Learner 2	47 / 55 x 100% = 85,45 ≈ 85%.	

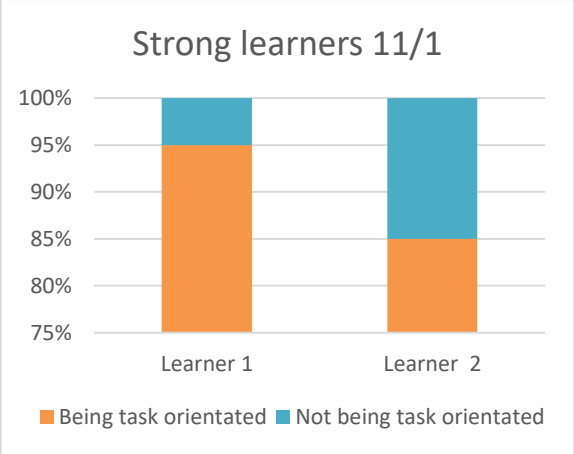
Date: 11/1 (English)			
Type of learner:	average	**Duration of the lesson:**	55 **minutes**
The Learner being task orientated measured per minute:	*Learner 1*		Total: 35
	Learner 2		Total: 42
The learners total effective learning time:	*Learner 1*	*(minutes of being task orientated/duration of the lesson x 100%)* 35 / 55 x 100% = 63,63 ≈ 64%.	
	Learner 2	42 / 55 x 100% = 76,36 ≈ 76%.	

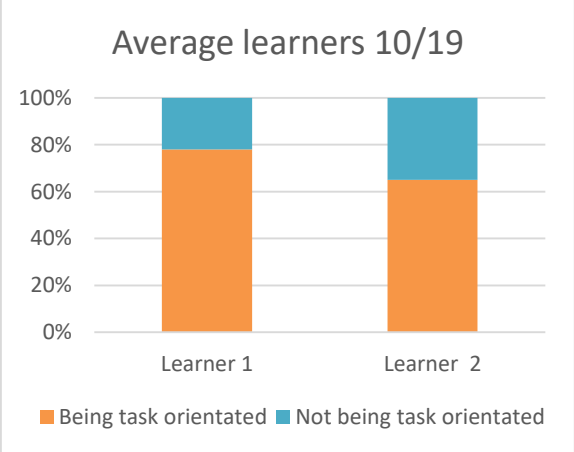
Date: 11/1 (English)			
Type of learner:	weak	**Duration of the lesson:**	55 **minutes**
The Learner being task orientated measured per minute:	*Learner 1*		Total: 22
	Learner 2		Total: 19
The learners total effective learning time:	*Learner 1*	*(minutes of being task orientated/duration of the lesson x 100%)* 22 / 55 x 100% = 40%.	
	Learner 2	19 / 55 x 100% = 34,54 ≈ 35%.	

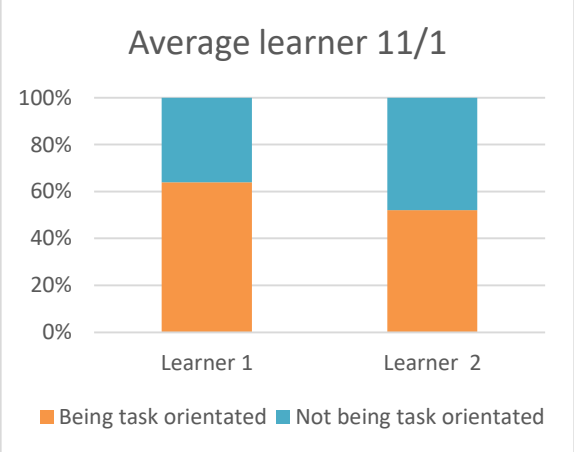
Appendix 13

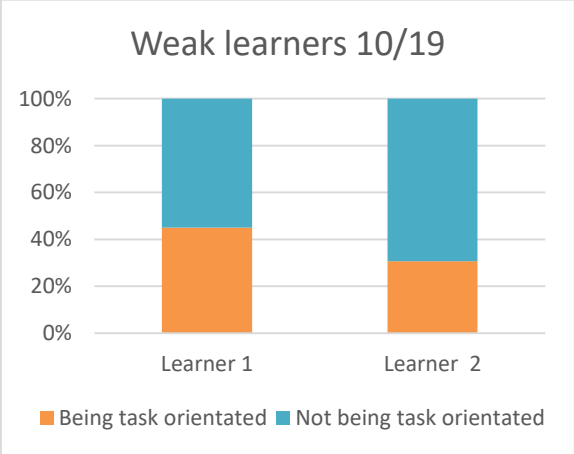
Graphs of the results from the observations of the new situation

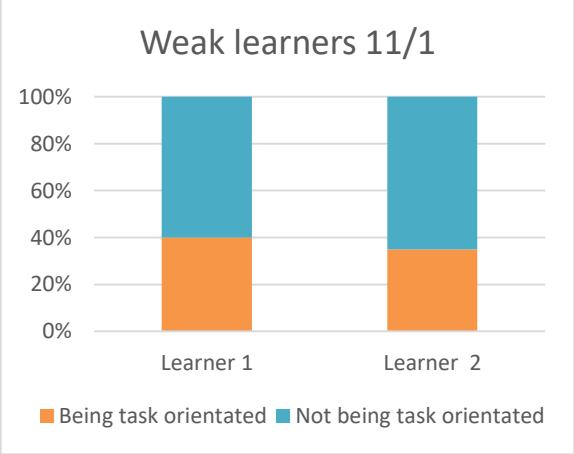












Appendix 14

Questionnaires

07/09

Questionnaire

Which subject(s) do you teach?

Xhosa

What education did you follow in order to become a teacher?

Teacher training

Have you herd of the term "cooperative learning" before?

- *Yes* ✓
- *No*

If yes, can you shortly explain below what you think the key elements of cooperative learning are.

- Working together
- Sharing ideas or views
- Participating

Do you use cooperative teaching methods in your own lessons?

- *Yes, always* ✓
- *Yes, sometimes*
- *No*

If yes, which cooperative teaching methods do you use?

- Group work
- Peer Assessment

The teacher is the manager of the group; what aspects do you think belong to classroom management? Write down below. For example: rules and agreements.

- To set rules in a class
- To organise & manage things
- To achieve goals he/she set
- To know his/her learners
- To visit their homes
- To assist them in many things social life etc

What classroom management do you apply in practice? Write down below.

Intermediate phase

Do you use an instruction model to prepare a lesson?

- *Yes, always* ✓
- *Yes, sometimes*
- *No*

If no, how do you prepare a lesson?

Do you state a goal for the learners before giving a lesson?

- *Yes, before every lesson I have stated a goal for the learners* ✓
- *Yes, sometimes*
- *No*

Which steps do you take during your lessons? Tick those boxes below.

- *Review*
- *Orientation* ✓
- *Instruction* ✓
- *Guided practice*
- *Independent processing*
- *Evaluation* ✓
- *Review and preview*

Have you herd of the activating direct instruction model (ADIM)?

- *Yes* ✓
- *No*

If yes, do you use the activating direct instruction model (ADIM)?

- *Yes, always* ✓
- *Yes, sometimes*
- *No*

Questionnaire

Which subject(s) do you teach?

LIFE SKILLS AND MATHEMATICS

What education did you follow in order to become a teacher?

BACHELOR OF EDUCATION DEGREE

Have you herd of the term "cooperative learning" before?

- *Yes* ✓
- *No*

If yes, can you shortly explain below what you think the key elements of cooperative learning are.

IT ENTAILS USING ALL FORMS OF TEACHING TO HARNESS THE LEARNERS. ALSO INVOLVES THE LEARNERS BECAUSE IT IS ABOUT THEM. NEED TO GO ALONG WITH LEARNERS AND NOT LEAVE LEARNERS BEHIND.

Do you use cooperative teaching methods in your own lessons?

- *Yes, always*
- *Yes, sometimes* ✓
- *No*

If yes, which cooperative teaching methods do you use?

LEARNER INVOLVEMENT
ROLE TAKING ETC

The teacher is the manager of the group; what aspects do you think belong to classroom management? Write down below. For example: rules and agreements.

DISCIPLINE
DILIGENT TEACHING

What classroom management do you apply in practice? Write down below.

DISCIPLINE

Do you use an instruction model to prepare a lesson?

- *Yes, always* ✓
- *Yes, sometimes*
- *No*

If no, how do you prepare a lesson?

Do you state a goal for the learners before giving a lesson?

- *Yes, before every lesson I have stated a goal for the learners* ✓
- *Yes, sometimes*
- *No*

Which steps do you take during your lessons? Tick those boxes below.

- *Review* ✓
- *Orientation* ✓
- *Instruction* ✓
- *Guided practice* ✓
- *Independent processing* ✓
- *Evaluation* ✓
- *Review and preview* ✓

Have you herd of the activating direct instruction model (ADIM)?

- *Yes* ✓
- *No*

If yes, do you use the activating direct instruction model (ADIM)?

- *Yes, always* ✓
- *Yes, sometimes*
- *No*

Questionnaire

Which subject(s) do you teach?

ENGLISH, NATURAL SCIENCE & TECH, SOCIAL SCIENCES

What education did you follow in order to become a teacher?

SENIOR PRIMARY TEACHERS DIPLOMA

Have you herd of the term "cooperative learning" before?

- ✓ *Yes*
- o *No*

If yes, can you shortly explain below what you think the key elements of cooperative learning are.

SHARING OF IDEAS
PARTICIPATION
TOLERANCE

Do you use cooperative teaching methods in your own lessons?

- ✓ *Yes, always*
- o *Yes, sometimes*
- o *No*

If yes, which cooperative teaching methods do you use?

PLACEMENT / GROUPWORK
MIND MAP
DRAMA AND ROLE PLAY
THINK PAIR SHARE

The teacher is the manager of the group; what aspects do you think belong to classroom management? Write down below. For example: rules and agreements.

TIME MANAGEMENT
OBEYING OF CLASSROOM RULES
TEACHERS PRESENCE / AVAILABILITY
TEACHING AND LEARNING TO TAKE PLACE

What classroom management do you apply in practice? Write down below.

TEACHING AND LEARNING
DISCIPLINE IN THE CLASSROOM

Do you use an instruction model to prepare a lesson?

- ✓ *Yes, always*
- o *Yes, sometimes*
- o *No*

If no, how do you prepare a lesson?

ORIENTATION INSTRUCTION
GUIDED PRACTICE
EVALUATION
REVIEW AND PREVIEW

Do you state a goal for the learners before giving a lesson?

- ✓ *Yes, before every lesson I have stated a goal for the learners*
- o *Yes, sometimes*
- o *No*

Which steps do you take during your lessons? Tick those boxes below.

- o *Review*
- ✓ *Orientation*
- ✓ *Instruction*
- ✓ *Guided practice*
- o *Independent processing*
- ✓ *Evaluation*
- ✓ *Review and preview*

Have you herd of the activating direct instruction model (ADIM)?

- o *Yes*
- ✓ *No*

If yes, do you use the activating direct instruction model (ADIM)?

- o *Yes, always*
- o *Yes, sometimes*
- ✓ *No*

Appendix 15

Didactical structures explained

- Two talk

The learners work in pairs.

1. The teacher gives a problem or a question where multiple answer can be given. And gives the learners time to think.
2. The learners take their turn to give a solution or answer.

- 3,2,1, show!

The learners work in groups

1. The teacher gives the learners an assignment.
2. The learners make the assignment individual.
3. When the learners are ready they indicate this.
4. When every learner is ready they count down and shown their answer to each other.
5. If it is correct the team celebrates this by giving compliments. If an answer is not correct the team members offer tutoring.

- Round talk

The learners work in groups.

1. The teacher gives a problem or a question where multiple answer can be given. And gives the learners time to think.
2. The learners take their turn to give a solution or answer.

- Round talk, agree and wright down

The learners work in groups.

See round talk. All the learner's wright down the answer.

- Flash cards

The learners work in groups and have a series of cards (made by the teacher).

1. One learner asks the team member the question that is on the card.
2. When one of the team members gives the right answer they may keep the card.
3. The game starts over when all the cards are finished.

The game can be played in levels: 1st round maximum clues, 2nd round a few clues and 3th round no clues at all.

Appendix 16

Lesson format

Date:	***Subject:***		***Time:***
Content goal			
Didactic goal			
Ready assignment			
Lesson aspect	***Didactic structure***	***Content***	***Notes***
Review			
Orientation			
Instruction			
Guided practice			
Independent processing			
Evaluation			
Review and preview			

(Dr. Kagan, S.& Kagan, M.,2014)