TEACHERS AS CHANGE AGENTS

Classroom research in Sierra Leone secondary schools

UKaid

CAMBRIDGE EDUCATION

FOREWORD

As the new Chair of the Teaching Service Commission, it gives me great pleasure to provide this foreword to this excellent teacher resource, which provides insight into the powerful value of self-reflection and action-research in teaching practice. I am confident that all readers of this resource will benefit from the valuable takeaways which they can take back to their classrooms to enhance their practice and improve the learning outcomes of their pupils.

Becoming a better teacher is a journey of reflection and discovery. Dedicated teachers are always looking for ways to improve what they do in class. This is because how teaching happens, just as much as what teachers know, has a profound effect on learning outcomes. Successful strategies for including all pupils, for encouraging and listening to them, and finding ways for them to contribute, mean no one is left behind, and more students realise their potential. The simple concept that reflection is an essential part of improving as a teacher is at the heart of this book.

Sierra Leone is committed to improving teaching and learning, and what we see in the pages that follow is much more than the documented processes of improvement. In many ways, both collectively and individually, these pages describe something more revelatory.

Every one of the 50 teachers from all corners of the country whose research studies are featured in this book, and every one of the more than 200 who contributed to the wider teacher research undertaking, has discovered something important about their own teaching practice through this experience. Challenges with the completion of homework, with students' subject interest, or with participation in class all demonstrate how, with purpose and determination, problems can be overcome. These individual journeys show how exploration builds better understanding of the classroom, enhancing the teaching and learning process.

Collectively, the research projects in this book demonstrate how practitioner research can drive professional growth. We also see how teacher research makes change more manageable. By focusing on one aspect of their practice they would like to improve, framing specific questions and following a process, teachers make changes that matter, however small. The studies also show us the value of collaboration. Teacher researchers had access to a mentor to discuss ideas, and teachers have all realised that working with others, their peers, school leaders, and their students has been the key to change.

This collection of teacher research reports points to the role of action research in systems change. For Sierra Leone, we see the importance of the wider learning from this exercise, of encouraging and supporting teachers to become problem solvers, because we know that this is where change brings the most benefits to learners. It is also important to acknowledge that each of the teachers in this project has become a change agent, now motivated to advocate for continued support moving forward. We also see through this project that rapid cycles of experimentation and evaluation have a critical role to play, alongside long-term action planning.

Not one teacher in this collection of research reports has achieved perfection. Not one has solved every problem in their classroom. However, what they have seen is the value of investing in a process of exploration and the changes they can make themselves. This book therefore shows the transformative potential when teachers have the time and the support to engage in classroom research; a process that brings benefits to teachers, to their teaching practice and to the impact this has on learners.

Conrad Sackey
Chair, Sierra Leone Teaching Service Commission

Leh Wi Lan/Sierra Leone Secondary Education Improvement Programme (SSEIP) is a five-year (2016-2021) UK aid-funded programme aimed at improving English and mathematics learning achievement in all secondary schools of Sierra Leone, especially for girls. Teacher research was implemented under the 'Teaching and Learning' component of Leh Wi Lan to strengthen teacher professional development in secondary schools. Any views and opinions expressed do not necessarily reflect those of UK's Foreign, Commonwealth and Development Office, MBSSE or Cambridge Education.

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INTRODUCTION

What is this book?

Teachers as Change Agents: Classroom Research in Sierra Leone Secondary Schools is a collection of research reports by 50 secondary school teachers of mathematics and English / Language Arts. These teachers have been part of a ground-breaking school-based teacher research project which took place from mid-2019 to early 2021, the first of its kind in Sierra Leone.

Their research studies are unique because each has been devised, directed, and carried out by teachers themselves. Teachers have identified their own challenges in the classroom that they wish to address through their research. They have gathered the evidence on which they base strategies they develop for improvement. It is the teachers themselves who have applied new practices in the classroom and assessed the extent to which they have worked.

Moreover, this research project is truly national. The teachers whose reports feature in this book are drawn from every district in Sierra Leone. Overall, more than 220 teachers took part in the teacher research activity, each at his or her own school. The reports reflect the voices of the teachers. The views expressed and the findings reported are those of the individual teacher.

The reports in this book are grouped into six thematic sections according to the primary area of focus for each of the research studies. As such, the sections provide valuable insights and strategies that explore how to ensure teaching methods include girls, and how to improve pupil interest and engagement in mathematics, and in English. Further sections look at how to use group work as a method to improve learning, at using different teaching strategies within the classroom setting and, finally, at the value and impact of seeking learner feedback in efforts to improve the teaching and learning experience. Each research report and section of the book, it is hoped, will provide ideas and approaches that will be useful to teachers everywhere. Collectively, the book aims to encourage exploration and reflection about the process of teaching, not just for teachers but for education managers and decision makers.

Each of the teachers in the research project has been supported in their work by the UK aid-funded Leh Wi Lan programme and Sierra Leone's Teaching Service Commission (TSC) to research a point of interest in their classroom, over the period of one year. Their accounts describe the research process they went through and their findings. *Teachers as Change Agents: Classroom Research in Sierra Leone Secondary Schools*, therefore, represents a summary of the journey each teacher has taken in identifying and delivering changes in the classroom to improve learning. Taken together, these reports show teachers as the creators and owners of change where it matters most in every education system: in the classroom.

What is teacher research?

Teacher research involves teachers looking closely and critically at their own practice. It approaches this task in a systematic way, firstly by identifying what is working well and what is not working well, understanding the reasons why, and then by making changes to how teaching and learning happens in the classroom. Lastly, teacher research involves observing whether those changes work and if so, how well and if not, why not.

First and foremost, teacher research is initiated by teachers themselves. It is carried out for purposes of professional development and to improve teaching and learning. We use the term 'teacher research' in this book, although other terms such as practitioner research, action research, and exploratory practice are variously used, sometimes interchangeably, in education literature.

Research is not something only scientists 'do' in labs or experts and academics 'do' in universities. Teachers' own experience and capabilities and pupils' motivation, interest and capabilities create the very foundations for teacher research. Understanding their own practice, learning from their own teaching, listening to their pupils, and developing more confidence and autonomy in their work represent some of the major outcomes of carrying out teacher research. This type of research, in which a teacher is exploring her or his own practice, is commonly known as 'exploratory action research' (EAR). Acting on evidence to improve the situation, is called 'action research' (AR). Teacher research as documented in this book is a combination of both EAR and AR.

Why do teacher research?

Teacher research as a tool for professional development has been shown to have a profound impact on teachers and learners[1]. Work done by teachers in countries such as India, Nepal, Turkey, Chile and Bangladesh available as published reports of teachers' work, provide significant evidence of the value of teacher research for teachers, learners, and their schools.

The act of undertaking teacher research can help teachers better understand the teaching-learning process and their pupils. Being able to see things from a pupil's perspective can help inform everyday classroom decision making – for example how to respond to a pupil's incorrect answer, how fast to progress through an explanation, how to group children to work on a problem, or how to engage a pupil who is shy.

It is this type of understanding that is key to the situation and the learner. It cannot simply be passed on to teachers because it is not straightforward knowledge. This understanding comes from asking 'why' questions to better understand pupils and their learning in the classroom. In this regard, teacher research plays a valuable role in facilitating this process and encouraging new ways of thinking.

In this way, digging deeper into the 'why' and building evidence of both what works and what does not work in the classroom contributes to a teacher's own evidence-based 'knowledge'. Evidence-based knowledge provides a deeper understanding of the teaching and learning processes in one specific context. Evidence shows, and this research project has demonstrated very clearly, that when teachers experience teacher research first-hand, they convey the message to other teachers with much more conviction and passion than when it is mandated by government authorities or delivered by 'experts' top-down. This relationship between insight, enquiry, and ownership, then, helps to create and maintain continuing professional development in a potentially far more sustainable manner.

Despite working alongside other teachers in a school, teaching can be an isolating experience. Teachers may not have the energy or time to catch up with colleagues and other education professionals during a working day. Teacher research provides an opportunity to work collaboratively with education colleagues within and outside the school. The interaction between teachers and the dialogue generated by teacher research provide a valuable opportunity for 'insider' knowledge generation and sharing. Whilst teacher researchers may investigate similar issues, their own research remains authentic, nuanced by the home backgrounds, teachers' and pupils' perspectives, and methodologies specific to their own classroom.

[1] Smith, R. (2020). Mentoring teachers to research their classrooms: a practical handbook. British Council. https://www.teachingenglish.org.uk/article/mentoring-teachers-research-their-classrooms-a-practical-handbook

The result is that teacher research is, in every case, valid, credible, and usable. The research site is the teacher's work context, and the inquiry both stems from and feeds back into authentic, live classroom contexts, ensuring validity. Its credibility comes from it being carried out systematically, benefitting from multiple perspectives such as those of peer teachers, learners, and principals. The teacher, of course, is also the researcher and therefore the understanding they develop through the research process is deliberately and purposefully practical and applicable by teachers and learners and, more widely, by other stakeholders.

How was teacher research implemented by Leh Wi Lan in Sierra Leone?

Leh Wi Lan, in collaboration with the TSC, took the joint decision to undertake the teacher research project to provide professional development to English and mathematics teachers and to improve learning in secondary schools.

The concept underpinning the teacher research project was welcomed by TSC because of its alignment with the Government's approach to teacher professional development in Sierra Leone. In so doing, the research helps teachers build experience and skills promoted in the Professional Standards for Teachers in Sierra Leone:[2]

- Learner-centered and individualised teaching strategies
- Critical inquiry and reflective approaches.

Getting started

An international teacher research expert, with extensive experience of leading teacher research in low- and middle-income countries, worked together with the Leh Wi Lan team and TSC to design and lead teacher research across Sierra Leone. Four national teaching and learning experts were selected to engage directly with teachers and with the international expert. TSC was intent on working collaboratively at national level as well as engaging all 16 TSC Deputy Directors to provide mentoring support to teachers in their district.

The teacher researchers were supported throughout the process by their school principal, fellow teachers and by a teacher research mentor. The mentor in each case was a Leh Wi Lan School Support Officer (SSO). The Deputy Directors of the TSC were also trained as mentors to offer support to teachers and SSO mentors in their district. The national and international experts provided specific technical leadership to the undertaking and facilitated a series of workshops and clinics in which teacher researchers met to develop their research projects.

Selecting participants

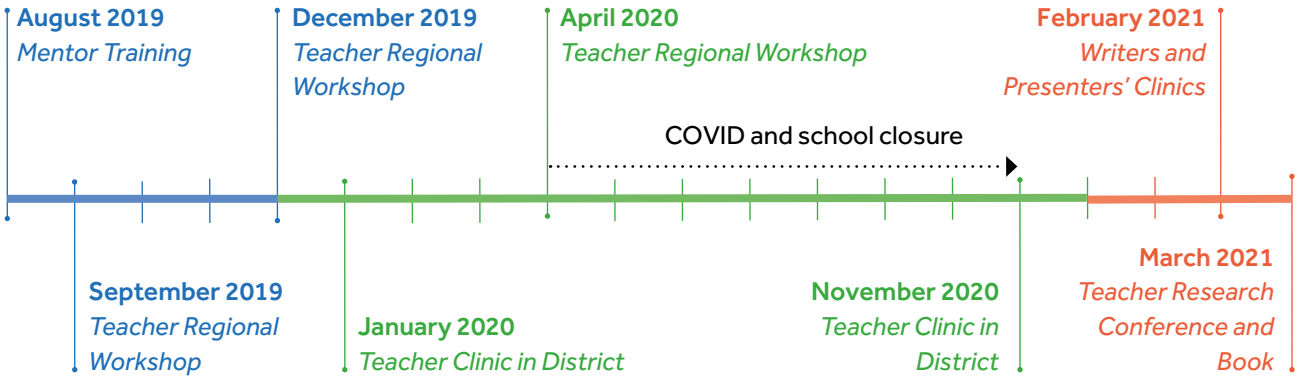
Whilst it was important to introduce the approach nationwide, it was not possible to work with all 7,000 teachers that Leh Wi Lan supports. Therefore, teachers who met set criteria were selected from all 16 districts. These criteria ensured a good balance and spread of teacher researchers from both Junior Secondary and Senior Secondary Schools, English and mathematics, male and female, as well as selecting teachers who demonstrated a willingness to take on new approaches in the classroom. The research project sought 50% representation by female teachers, though the lack of female teachers in many schools resulted in this figure being less than 10% of the total. Altogether, 220 teachers were enrolled on the programme.

Guiding mentors and teachers through the teacher research process

A programme was designed to support mentors and teachers over one academic year with face-to-face workshops held each term to guide both mentors and teachers through different stages of their research studies.

[2] Sierra Leone Teaching Service Commission (2017). Professional Standards for Teachers and School Leaders in Sierra Leone.

Timeline



Ongoing Support:
Regular classroom visits and meetings with SSO mentor
Remote 1-1 conversations on WhatsApp and phone with international and national experts
Remote networks for professional discussion between mentors and teacher researchers

The regional workshops, based on a cascade model, were conducted by mentors and national teaching and learning experts with support from the international expert. They introduced a stage of teacher research and gave guidance to teachers on how to implement it in their classrooms. Clinics were introduced to enable teachers and mentors to meet at district level to receive more practical help in developing tools for gathering evidence for their study, and later to review the data and present it. Between one workshop or clinic and the next, teachers were closely monitored and mentored by SSO mentors, who visited the teachers in their classrooms to help teachers to set up the study and work on it in phases.

Impact of COVID-19

It was at the time of the third workshop, in April 2020, that COVID-19 struck. Schools closed, travel restrictions were put in place, and the plan for teacher research in Sierra Leone needed to change. Whilst the teacher research continued, there were several ways the disruptions of the pandemic impacted on how it proceeded.

- The imminent training was changed from face-to-face to online training, with mentors cascading what they learned online to teachers in small groups.
- SSO mentors and the four national experts went beyond the call of duty to keep teacher research going forward despite school closures.
- A positive consequence of the disruption was that SSOs, who were expected to learn to become fully fledged mentors over a longer period, took charge of the situation and helped teachers to continue their research which, at this point, was at the data collection and analysis stage.
- The downside of this was that SSO mentors were themselves new to classroom research. Many mentors and teachers had limited access to smart phones, internet or phone network. This made it a challenging task to give remote hands-on guidance and direction to teachers, as required by the circumstances.
- Although this was not an ideal scenario for carrying out classroom research, and there were several interruptions, the completion of the research is a clear indication of the resilience and determination of people at all levels of the education system in Sierra Leone. *Teachers as Change Agents: Classroom Research in Sierra Leone Secondary Schools* is therefore an example of how teacher research, a new initiative, with determination and tireless work at all levels, can be brought to fruition.

One teacher researcher commented: *"I consulted other researchers in our group. This has always helped me. We sometimes meet or speak on phone to share experiences. I enjoyed this type of work, because sharing classroom experience with others is a very effective way to overcome classroom challenges. I looked for further opportunities that would lead to classroom improvement. I am excited to say, such activities can help one to grow professionally and build on one's future career."*

Dohyne L. Mammy.
Mathematics teacher. Mamba JSS Nyendehun. Kailahun.

Communicating the research

The final stage of the teacher research process involves teachers writing up their research and sharing with others. Writing a research report requires a different set of skills and, for many teachers, it was challenging to complete it alongside their daily teaching jobs. SSO mentors provided support alongside a 'writers clinic' for the strongest teacher researchers. Through this more intensive support, 50 teachers from all 16 districts were able to develop a final draft of their report that could then be edited for inclusion in the final, published book.

Teacher researchers will have the opportunity to present their research in one of four regional conferences in March 2021. Sharing the process and the outcome of their experiences at a conference acknowledges clearly that teachers' research is respectable and has value.

All teacher research materials and programme documents will be hosted by TSC.

Lessons Learned

Teacher researchers have each reflected and noted in their research reports the lessons they have learned through their research studies. Some of the lessons they describe have common dimensions, and these are highlighted at a generalised level in the introduction to each thematic section. In addition to those thematic reflections, there are several wider points which are noteworthy here.

Teacher research is a different style of professional development, that puts teachers in the lead

Many teachers in Sierra Leone are used to attending professional development training, typically away from school, with an 'expert' sharing best practice. Teacher research takes a different approach by asking teachers to take the lead and to reflect on issues in their classroom, gather evidence about the issue and then adapt or revise their own practice based on evidence from their classroom.

This concept was challenging for teachers to get accustomed to at first. Teacher researchers were expecting to be trained on a pedagogy and to be given tools to go away and implement in the classroom. Instead, the training provided them with skills and a systematic process to explore the problems they face in the classroom, then go back to the classroom and begin the research process. Despite this challenge, teachers showed determination and enthusiasm to take on something new and make positive changes for their learners, especially when they were supported by others. By the second phase of training, three months later, there was a remarkable shift in understanding from both the SSO mentors and the teachers.

One teacher reflected on the process: *"Above all, I learnt that classroom research work should be a priority to any classroom teacher because it enhances efficiency in the classroom. A lot of mistakes are made by teachers in the classroom during lessons. It is only classroom research that can correct them. I will always remember that classroom research is one of my best tools as a classroom teacher."*

Paul Morrison.
Language Arts teacher. Holy Ghost SSS Segbwema. Kailahun.

Another commented on the experience: *"Before this research work, decisions were taken without making further investigations. But with the series of trainings conducted by this project and Leh Wi Lan, I have transformed my mindset, skills, techniques, behaviour of my teaching and decision making."*

Ibrahim Senesie.
Mathematics teacher. St John's Kangahun. Moyamba.

Teachers faced challenges selecting a specific research question

In a context where there are multiple, inter-connected, barriers to learning, it can be difficult to single out one contributing factor to explore in teacher research. However, where teachers have identified and focused on a specific problem, they have done it well - for example, in looking at how to improve girls' participation in group work.

Some teachers researched complex challenges such as 'poor performance in mathematics' or 'low participation in English' and suggested these can feel overwhelming and difficult to address. But as teachers experiment with their pedagogy and develop their research skills, they find it easier to explore such issues, and to address them successfully in their teaching.

"I came to the conclusion that there are a number of intermingled factors that are causing low performance of students. Students need an interest as well as pre-existing level of knowledge and skills in mathematics. These are major factors determining low achievement in mathematics."

Hassan Abu Bakarr Bangura.
Mathematics teacher. Kamaron Community JSS. Koinadugu.

"Through this study, I have learnt that through monitoring, observation and peer work activities, pupils can learn better and change positively. I again learnt that one method could not use to solve problems in the classroom. In this sense, educational problems can be solved using different approaches. I, furthermore, learnt that students could do better if they allowed taking part in their own learning."

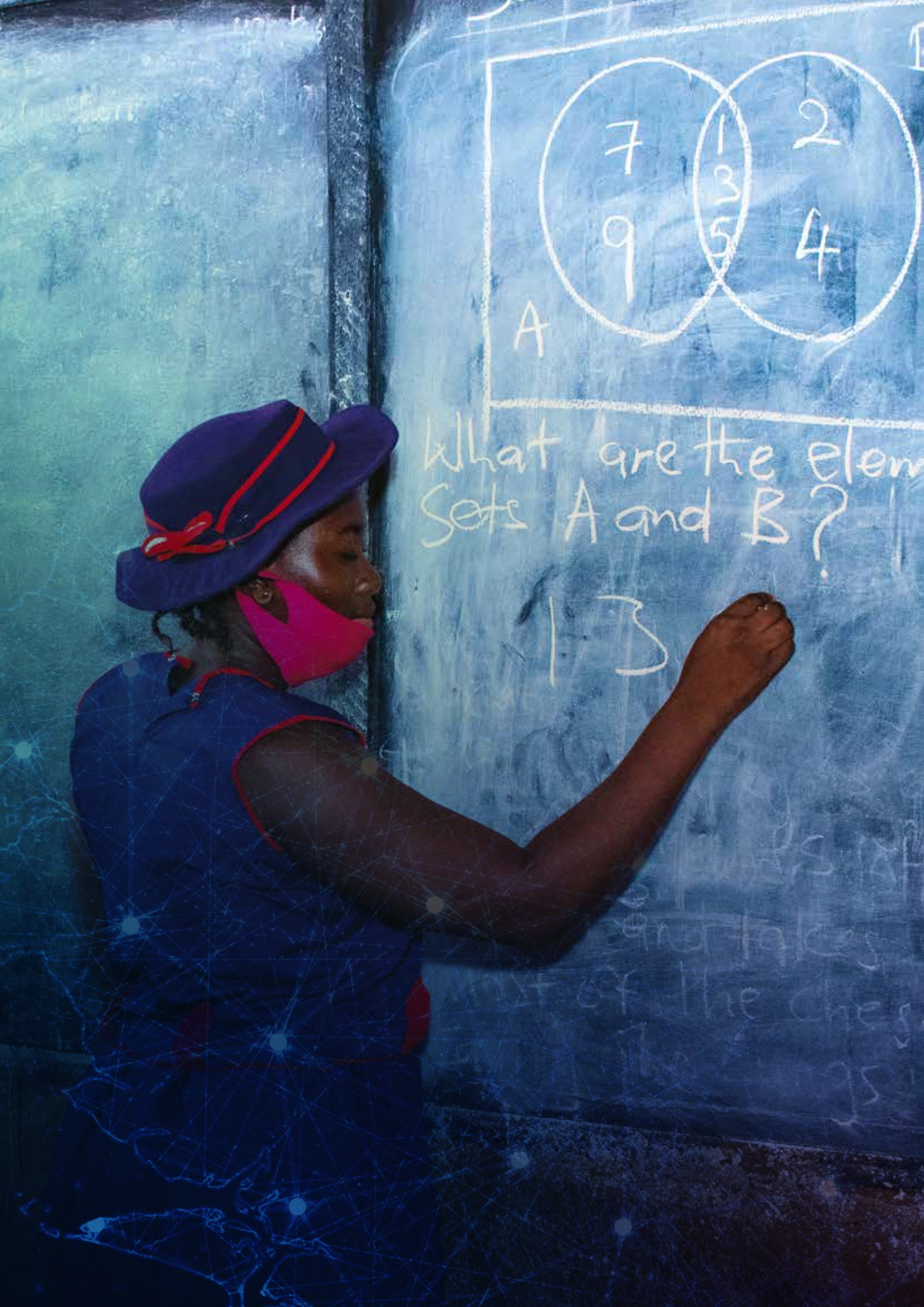
Sorie Dumbuya.
Language arts teacher. The David School. Port Loko

Teachers in the same school have a valuable role to play supporting one another to improve learning

At the first teacher research workshop some teachers said they could not ask colleagues for feedback on their teaching because it would be seen as a sign of weakness and they feared their weaknesses being reported to the principal, perhaps even losing their job. It is encouraging to see they now report positively on how talking to colleagues in their school, getting their feedback and letting them observe their lessons has helped them better understand their classroom and teaching. For many teachers this is a practice they want to continue.

"The idea of taking this venture helped me to talk with my colleagues and my pupils to interact. This task made me to see and plan for my class. At the end of each class/lesson being covered, I reflected on what I have accomplished. If there is any scope to improve, I used to meet my colleagues to discuss and take advice. From my continuous consultation made from my colleagues and Leh Wi Lan team, I realized that two heads are better than one."

Mohamed Sheriff.
Mathematics teacher. Alhaji Lamin Sidique SSS Batkanu. Karene.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INCLUSION OF GIRLS

INCLUSION OF GIRLS

There is plenty of evidence demonstrating that girls' education not only benefits the girl but also contributes significantly to the whole of society.[1] Addressing a classroom culture that amplifies gender based barriers is one of the most important steps in creating gender inclusive learning environments.

Gender dynamics in class and in learning results

Several teacher researchers identified that their teaching and classroom environment could be more gender responsive. A key area where gender differences are most apparent in class is in girls' lack of confidence to participate actively in lessons. Prejudicial assumptions about gender can be projected by teachers and pupils, resulting in girls being systematically underrepresented in classroom interactions, often unable or anxious to speak up, affecting learning significantly.

It is little surprise, therefore, that in Sierra Leone as in many contexts, boys outperform girls in examinations. Recent learning assessments in Sierra Leone show that, compared to boys, significantly fewer girls reach the expected knowledge level for Junior Secondary School (JSS), either for English or mathematics, and that gaps in learning levels between boys and girls widen as they move to Senior Secondary School.

Understanding girls' (lack of) participation

In the reports included in the following section, most teachers focused their research on why girls were not participating in lessons. For these teachers, girls' participation was evidenced through girls speaking aloud in class, answering questions and being able to read passages in front of the class.

All teachers researching this topic wanted to make their classroom inclusive and ensure all learners participate. They were keen to talk to girls about their learning and adapt their teaching practice to better meet girls' needs. Importantly, however, teachers sought views from both boys and girls about girls' participation, an acknowledgement that pupils' perceptions may differ and that change comes in the classroom if all pupils are involved.

In different contexts, teachers found that girls rely on boys to answer questions or believe that questions are only for the boys. Teachers found that girls do not answer aloud, even when they have the correct answer in their heads. Teachers also realised that, in many cases, boys relied on girls for the success of the group. Some teachers recognised that reluctance to answer aloud in class stemmed from cultural norms outside the classroom.

Solutions to encourage girls' participation

In each case, teachers came to understand through the research that their teaching methods and style of communication has a significant impact on girls' willingness and ability to participate. Through their research, teachers identified changes in teaching styles and adopting friendly approaches that would result in girls not only responding to simple questions or activities, but also taking on more complex topics during lessons.

[1] Plan International (2008). Paying the price: The economic cost of failing to educate girls.

Collectively, the research studies identified a range of practical changes in teaching practice and classroom management, which teachers then applied and from which they were able to monitor results. These changes included moderating their own attitude and style in class to make the learning environment more positive by being less aggressive and using praise and motivation. Another changed approach was in using different groupings, for example, by grouping girls together to make them feel more confident to share ideas. However, some teachers found that grouping girls and boys can encourage them to work more collaboratively and confidently and assigning roles in group work, such as 'leader' and 'presenter' gave girls more confidence to speak up.

A third area where solutions were identified and applied was in adapting the content of teaching to meet girls' interests. In some instances, this involved bringing female role models into mathematics lessons, using English texts that girls can relate to and find interesting, and using games. A fourth area of exploration was in setting expectations of classroom behaviour and practice to pupils clearly at the outset, for example, by establishing ground rules and ruling out laughing at others.

Overall, teachers recognised that girls' participation in class was deeply affected by the social norms and barriers that exist outside the classroom. However, all teachers recognised that these barriers were perpetuated and often exacerbated by practice within the classroom and that a range of relatively simple strategies could make a significant difference.

> "...In most cases boys relied on girls for the successes of their group. Girls were not only responding to simple questions or activities, but also handling complex issues during lessons."
>
> **Christopher Senesie** (Teacher in Bonthe District)

Christopher

IMPROVING GIRLS' PARTICIPATION IN MY LESSON

RESEARCHER
CHRISTOPHER K. SENESIE

SCHOOL
UMC VOCATIONAL SSS

SUBJECT
MATHEMATICS

SSO
MOHAMED SALIM JUSU

DISTRICT
BONTHE

BACKGROUND

One of my main aims as a teacher in the classroom is to create an enabling environment for all learners, irrespective of gender or social status, so they feel comfortable and actively participate in my lesson.

To achieve this, I used several techniques to promote inclusion. However, to my greatest dismay, I often noticed that a disproportionate number of learners that were participating in my lesson were male pupils. I tried to find out the challenges that girls were encountering in my lesson, the effectiveness of my teaching methods and what girls actually do during my lessons. This is important for my teaching because, by understanding girls' attitudes and observing their activities during lessons, I would be more able to help reduce the pressure and negative tensions they experience. This will then mean they can be equal participants in my lessons.

THE STUDY

I developed three research questions to guide me through my research:

1. What are the challenges that female pupils are facing in my lessons?

2. What are male pupils thinking and doing with female pupils in lessons?

3. How can I engage female pupils in my lessons?

I completed three cycles of research and got feedback from learners and support from my colleague teachers and SSO.

During the study, I used some tools to collect data. I noted some changes in the lessons in my reflection diary every day. I collected feedback from female learners and male learners separately to understand the challenges girls encounter and to understand how boys perceive girls in the classroom. I also got evidence from the classroom observation checklist and from discussion with colleague teachers.

The classroom observations covered the following areas:

1. Pupils' participation with special focus on girls.

2. Collaborative working skills

3. Teachers' performance in class in terms of instructions, motivation, inclusion and support.

At the end of the classroom observation, I had a frantic discussion with my colleague teachers. This activity was important to my study because it unveiled the behaviour of girls during lessons, the attitude of boys towards girls during lessons and my engagement with learners with special reference to girls.

Cycle 1

In cycle 1, I engaged 20 female learners in order to know the challenges they were facing in the classroom and 20 male learners to understand their perceptions about girls and how they treated them during lessons. My colleague teacher also observed my lessons using the classroom observation checklist at first and, in another lesson, took notes on specific areas in the lessons including:

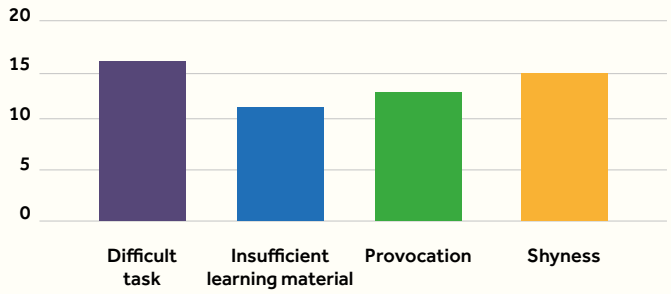
1. Inclusion

2. Motivation

3. Even distribution of questions

4. Support

The barriers to class participation (out of 20 girls).



Main findings

From the evidence gathered, it came out clearly that the following factors, among others, greatly accounted for the low participation of girls in my lessons:

1. Low level of confidence;

2. Provocation and conflict with other learners;

3. Lack of learning materials;

4. Unclear instructions and lack of support from teachers and at home.

Cycle 2

In this cycle, I tried to protect the rights and dignity of all learners in the class, especially the girls, by developing ground rules and some positive discipline measures.

I also tried to build confidence in female learners. I changed my method of grouping and placed girls in one group and boys in another group to undertake lesson activities. Most often I set the girls against the boys in responding to questions and, in some cases, I paraphrased certain terms in the instructions or questions to make it clearer and to deepen understanding.

I asked girls to choose the questions they were comfortable with and ask me for assistance or clarifications during their group discussions. I used a lot of motivational words when they are completing activities to inspire them to do more.

During this cycle, I discovered that girls can equally do what boys can do, and sometimes even better. Girls were not only using the lesson content to complete lesson activities or to respond to questions, but to link these lessons to everyday activities outside the classroom.

Cycle 3

In this cycle, I tried to create an inclusive learning environment where every learner was given equal and fair opportunities to freely participate in the lesson.

I ensured that girls had as many chances to participate as boys in a free and voluntary manner.

Girls were grouped or paired with boys to undertake lesson activities. I also ensured that there was gender balance in giving responsibilities at group level. I distributed questions evenly among boys and girls and gave them support when necessary.

During this cycle, I realised that, in most cases, boys relied on girls for the success of their group. Girls were not only responding to simple questions or activities, but also handling complex issues during lessons.

I engaged parents and guardians on the need to invest in their girls during Community Teacher Association (CTA) meetings and I encouraged them to do their best by providing learning materials and giving necessary support and time to study at home. This is an area where further research is required to understand how to engage parents and guardians to support girls with their education.

RESULTS

Through each cycle of my research, girls' participation and enjoyment of my lessons increased:

Out of 20 pupils (Girls)

Cycle	Participated in the lesson			Enjoyed the lesson		
	lesson 1	lesson 2	lesson 3	lesson 1	lesson 2	lesson 3
Cycle 1	5	7	6	3	5	4
Cycle 2	10	12	15	11	11	13
Cycle 3	18	16	18	16	18	18

WHAT I LEARNED

During my research, I learned a lot about the attitudes of girls, their likes and dislikes and how to bring them on board in the lesson, which will make my work as a teacher more effective and productive. Among many things I learned from this study are:

- Girls like sitting and working together in the class;
- Some girls rely on boys to answer all the questions, even when they know the answer;
- Giving responsibilities to girls in the lesson will make them active;
- Girls can equally do what boys can do in the class if given the right support and encouragement;
- Girls are also capable of relating lesson content to everyday activities in society.

Moses

WHY ARE GIRLS AFRAID TO PARTICIPATE IN MY CLASS?

RESEARCHER
MOSES N. KAVURA

SCHOOL
F.A.V.S.S GANDONHUN

SUBJECT
MATHEMATICS

SSO
ABDHULRAMAN FOFARAH

DISTRICT
MOYAMBA

BACKGROUND

I noticed that girls were not participating in my lessons. This became a concern to me because I teach in a co-educational school and through continuous professional development training, I know that inclusion and gender equality helps me to provide a conducive learning environment for all pupils in my class.

Girls' participation became an issue for me because I wanted my class to be very inclusive and gender sensitive.

THE STUDY

The first question I asked myself was: 'why are girls afraid to participate in my class?' To explore that question, I decided to discuss the situation with my principal for possible advice since he is also a mathematician. In our discussion, I explained the problem I was faced with in my class. His advised that I should change my method and apply one that would cater equally for boys and girls. I thought about how I could arrange my class and the methods I could use to make it more inclusive. That led to the introduction of group work in my class.

I arranged my class into groups and changed my method of teaching from a teacher-centered technique to a pupil-centered technique. I applied the new method for two weeks. The following week I invited a colleague teacher to observe my lesson. From the observation result, I found out that there was need for more motivation. So, I prepared questionnaires to ask my pupils what they thought.

In continuation with the new method, I decided to add the following rules to make a way for each and every pupil to participate in their various groups:

1. Positions of secretary and group presenter to be rotated among members of the group.

2. The group of the day (the best presenting group) is announced, and grades awarded for more motivation.

We continued this for two months before I invited a colleague for the second observation using the same measures. From the result of the second observation, I realised that the group rotational method was working and that girls were now participating, making my class interesting and interactive.

RESULTS

My principal's advice gave me an insight as to how to start the process of a study. It gave me scope to introduce group work which I believed to be very much pupil-centered. I used this method to give my pupils equal opportunity to participate in their various groups. Before going to the next cycle, the observation result showed that there was still more to do because girls were still not feeling free to participate willingly.

Results from my classroom observation showed that there was need for more motivation in order to be able to achieve a much higher level of girls' participation.

Teacher Observation 1 of 2

Time	Instruction Clarity	Male Response	Female Response
3rd minute	✓	✓	
30th minute	✓		✓
32nd minute	✓	✓	
35th minute	✓	✓	
38th minute	✓	✓	

In a class of 46 pupils, 3 were absent and all 43 present chose the new, pupil-centered method where they were able to work in groups.

The introduction of the group rotational method wherein every member of each group is given the opportunity to serve in the capacities of secretary and group presenter created a level playing ground for the participation of both boys and girls.

The awarding of grades to the best presenting groups helped to motivate my pupils and increased the participation of everyone, including girls. The class became more competitive and interactive.

Teacher observation 2 of 2

Time	Instruction Clarity	Male Response	Female Response
4th minute	✓		✓
15th minute	✓	✓	
30th minute	✓		✓
36th minute	✓	✓	

From the results obtained, below is a table to show the number of girls who participated in class. This was done with the entire class.

No. of girls participating across different cycles	
Cycle 1	8
Cycle 2	13
Cycle 3	16

WHAT I LEARNED

From my study, I learned that, as a teacher, I should be able to achieve my aims and objectives in making learning a 'must'. I should always try to create an inclusive atmosphere for all pupils in the class, regardless of any gender or physical differences. I should try to identify in the learning process and find solutions by speaking with colleagues and with my pupils.

Ansumana

IMPROVING GIRLS' PERFORMANCE IN MATHEMATICS

RESEARCHER
ANSUMANA KALLON

SCHOOL
MICHECK MINAH MEMORIAL

SUBJECT
MATHEMATICS

SSO
AMARA BRIMA

DISTRICT
PUJEHUN

BACKGROUND

I noticed that, compared to their male peers, most girls in my mathematics class were shy and not participating in lessons. Sometimes, they appeared bored and not interested in the class exercises I set and this led to low performance in tests and exams. I undertook this research to further probe into the challenges girls face in learning mathematics, with a focus on addressing them in order to achieve the desired learning outcomes.

THE STUDY

I embarked on data collection in cycle 1 to discover reasons for girls' low performance in mathematics and to establish a clear road map for actions. Against this backdrop, I designed several research questions and held group discussions with the girls.

During the discussions, most girls were excited about the teacher requesting their opinions about the lessons but a few were passive listeners. However, the responses I got from the girls provided me with useful tips on the challenges they faced in mathematics lessons and ideas about the way forward.

In cycle 2, I told the girls about some career opportunities that mathematics provides and exposed them to female role models who had succeeded in mathematics. This motivated them and aroused their interest. Similarly, I stopped being harsh with the girls and became more flexible in responding to their questions. This strategy reduced shyness. I also adjusted my teaching approaches and involved girls in planning classroom activities.

I ensured that every lesson provided some tasks to be completed in class and encouraged girls to solve problems on the board and supported them when they got stuck. Often, I praised them for their attempts even when their answers were not correct. This created an inclusive classroom. I always ensured that I marked their assignments and provided feedback on their strengths and weaknesses. All these strategies helped girls to solve several maths problems which contributed greatly in enhancing performance.

Similarly, I spoke with the principal and colleagues to share the experiences and strategies that they apply in addressing girls' learning challenges. The detailed information they provided helped me change both my teaching styles and motivational strategies.

I selected all the 20 girls in my class to complete the questionnaires about their understanding, the challenges they faced and the help they wanted to receive. I requested feedback from the girls at the end of every lesson and noted their concerns.

Based on further feedback from girls in my class, I tried group and pair work. I asked a colleague to observe two lessons and focused on the way in which learners collaborate with one another in solving their tasks.

For group work, I arranged the groups comprising boys and girls and involved them in creating rules to ensure discipline. I set some tasks to be completed. Feedback from my colleague suggested this did not work well so I tried pair work.

I paired each girl with a boy based on ability and compatibility to ensure collaboration. The boys engaged actively with their female pairs and assisted them to complete their task.

I realised that my pupils perform better when they work in pairs and, therefore, implemented this strategy for several weeks and introduced weekly tests to assess progress. This greatly improved the performance of girls in mathematics.

In my reflections, I realised that I was being harsh with girls for failure to complete their class tasks and assignments. This made me adopt more friendly approaches.

Additionally, I did classroom observations to assess my delivery methods. With the evidence gathered, I proceeded with implementing strategies to address concerns raised by the girls which led to improvement in their performance progressively from cycle 2 to cycle 3.

RESULTS

I found several challenges that prevented girls from participating and learning in mathematics including:

- Their lack of interest
- My harshness
- Their shyness
- Lack of understanding

The following tables show girls' interest in, and understanding of, mathematics

Girls' interest in mathematics		
Interested	Not interested	Total
4	16	20

Girls responses: Do you understand mathematics?		
Yes	Sometimes	No
2	5	13

The girls' lack of interest and understanding in mathematics limited their interest and ability to participate in mathematics lessons.

In cycle 3, I engaged girls on the new methods of teaching ways of working and noted the interest in group work. However, feedback from my colleague showed that some pupils dominated the work without much collaboration with their group members and this made some girls abandon the task.

Girls responses: Which is your preferred way of working?		
Individual work	Group work	Pair work
3	10	7

WHAT I LEARNED

As a teacher, my roles are not limited to classroom activities and also involve administrative assignments and personal daily routine.

At the inception, I was doubtful as to whether this research would be successful given the time and efforts it required. I faced lots of challenges, especially with regard to data collection. However, I decided to face the challenges squarely and relied on the support of my pupils in fulfilling this study.

As a classroom teacher, this research has been a turning point in my career. I discovered that girls can achieve their learning goals, but they are unlikely to do so without the support of the teacher. Therefore, I had always considered the learning needs of girls throughout this study and this reflected positively in their performance. I discovered that some of the hindrances the girls faced were home related, but, given the nature of this work, I was unable to further assess these challenges and address them.

The successful completion of this work wouldn't have materialised without first realising the flaws in my teaching approaches and taking responsibility for my pupils' failure. The experience I got working with learners made me understand the importance of their views in planning and delivery lessons. This helped me change from a teacher-centric to a learner- centric approach.

Similarly, I learned that creating a friendly learning environment goes a long way to motivate learners and remove shyness. Thus, the flexibility I adopted resulted in cordial working relationships with pupils, not only during this work, but even after completion.

I also enjoyed tremendous support from colleagues, including the vibrant SSO, especially in terms of lesson planning and delivery methods.

Therefore, the successful completion of this work is a great accomplishment in my career and the lives of my pupils.

Demba

HOW TO ENCOURAGE JSS2 TO PARTICIPATE IN MY ENGLISH LESSONS

RESEARCHER
DEMBA F. KAMARA

SCHOOL
KURUBONLA SECONDARY SCHOOL

SUBJECT
ENGLISH

SSO
MUSA Y.TURAY

DISTRICT
FALABA

BACKGROUND

As an English teacher I had always tried to make more effective change in my orthodox method of teaching which over the years has been disappointing in terms of the low participation of girls during my lessons.

I tried to find out how to create an inclusive and participatory learning atmosphere in my class that would help me to do what I needed to achieve in the classroom teaching and learning. Against this backdrop, I tried to probe into the prevailing reasons.

THE STUDY

Pupils' classroom participation gains great importance in courses where communicative approach methodologies are being used for language teaching.

This work will report and describe the findings of an action research project designed to encourage pupils to freely express their thoughts during lessons.

The research aimed to provide evidence of some of the most important causes for non-active English pupils. The participants were pupils from Kurubonla secondary school. Pupils' cultural barriers, religion and lack of basic English skills in relation to participation, and my attitude, seem to be some of the most important reasons.

In cycle 1, I used a class sample of 42 and I interviewed pupils. I also had discussions with two of my colleague teachers on how effective, interactive and involving these new techniques were in encouraging girls to participate more.

In this cycle, I decided to action some of the girls' concerns and the views of my colleagues. I started to use different skills and techniques, like role play, miming and oral presentation. For example, I took English lessons on drama at JSS2 level. I started my lesson with a role play method by using the lesson plan manual. We did some sub activities like singing and talking fictional and non-fictional stories that could arouse the interest of girls during lessons. After the lesson I prepared a standard feedback paper to assess how participatory the girls were during the lesson which helped me to achieve the learning outcomes. I kept a tally of their responses.

During cycle 1, I noticed the boys were not supportive to the girls so in cycle 2 I recorded my aims and objectives in my diary.

In cycle 2, I reflected on the following questions:

- Are group work and presentation more effective teaching methods for learners?
- How can I increase the participation and boldness of girls? Through group work/ presentations?
- How can the boys be more supportive to the girls during my lessons?

Through my reflection, observation from my peer teachers and also interviews from some pupils (both boys and girls), I planned some techniques and recommendations I failed to adhere to in cycle 1, I included group work presentations and allowed the girls, especially the shy ones, to be group leaders, readers and present on behalf of their respective group. I also used the opportunity during the parent teacher meeting (PTM) to talk about the danger of the tradition, culture and religious beliefs that limit the participation of girls in the classroom and in other public areas.

In cycle 3, I conducted a debate amongst the groups. In this debate I was the one who chose the group representatives and I gave them the impression that I could chose anyone to present his or her group. I said this was about the achievement of the group, not the individual. I collected data about how each group presented and this group debate helped me to make my lesson more inclusive and participatory because everyone was involved.

RESULTS

Before cycle 1, only two out of 42 girls only participated fully, 15 partially participated and 25 did not meet with expectation and I was totally dissatisfied with this level of girls' participation.

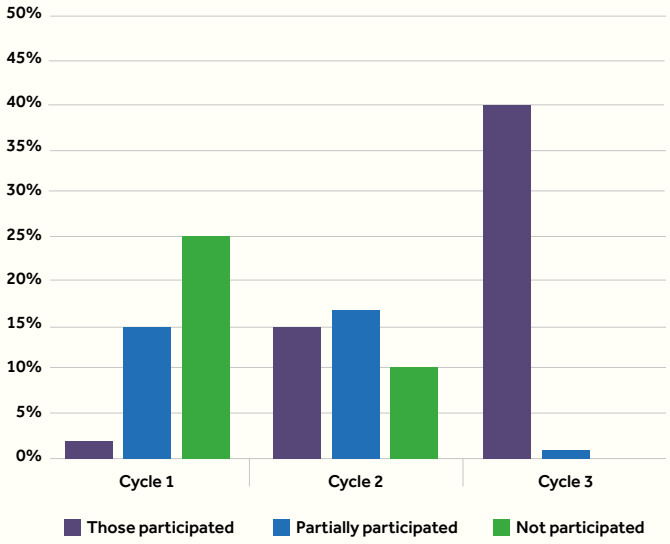
After starting to use different skills and techniques like role play, miming and oral presentation, I saw that more girls were getting involved and participating during my lesson than before but 10 still did not show up to lesson at all.

In cycle 2, I noticed that the majority started to change their attitudes towards participation in their own learning.

I noticed 30 out of 42 girls were now actively participating during my lesson, seven partially and five did not show up at all, which was a very good and a massive improvement.

After all this, I saw active participation from both boys and girls supporting each other, with 40 out of 42 girls actively participating and two partially participating during my lessons.

Pupil participation



WHAT I LEARNED

The use of the new techniques like role play, miming, debate competition and group work presentation makes my class more inclusive and interactive. If the girls' interest is not stimulated, they will not become active and participatory in class, and, if that happens, you will not have an inclusive learning environment and your learning outcomes will not be achieved.

If the teacher creates some kind of mental exercise and gives proper guidance and counselling, girls will better perform in class. They can even do better than the boys and challenge them in classroom activities. There are still a few of them who are shy but they are coping with the new techniques gradually.

In my further research, I would like to investigate the influence of religious and traditional beliefs in certain rural communities on girls' attendance and participation.

Using group work presentation and creating a sense of academic competition among groups in the classroom makes teaching and learning more participative and inclusive. It helps to motivate pupils to actively participate and successfully achieve learning outcomes. I now have good levels of participation in class from both boys and girls. I believe a teacher using these different techniques will help create an inclusive learning and teaching environment.

Brima

WHY READING IS DIFFICULT FOR MY JSS1 GIRLS IN ENGLISH LESSONS

RESEARCHER
BRIMA FODAY KAMARA

SCHOOL
MORIFINDUGU JUNIOR SECONDARY SCHOOL SEREKOLIA TOWN

SUBJECT
ENGLISH LANGUAGE

SSO
PATRICK K. KONTEH

DISTRICT
FALABA

BACKGROUND

I am an English teacher teaching in an extremely rural community called Serekolia in the Northern part of Sierra Leone, Falaba District. I noticed that local dialect often negatively affects the learning of English. Most of my JSS one girls cannot read aloud well and struggle to use the right intonation and pronunciations. Whenever I tried to correct these problems the girls always disappointed me. This situation prompted me to investigate why reading was difficult for the girls in my English lessons.

THE STUDY

As a teacher researcher, I was facing some crucial problems. Two questions came to my mind:

- What's going wrong with my teaching?
- How can I motivate girls in reading English?

This led me to collect data from various sources, which was a bit challenging to finish in time. I prepared the research questions keeping in mind the goals of the study to make the technique more effective and conducted three different steps i.e. planning the research, turning it into action, observing improvements and reflection on pupils' action in class. I ensured the involvement of 25 girls, although the class consisted of 45 pupils, because I was especially concerned about the girls and my focus was to include them. The rest of the class were part of all the activities implemented but not involved in my analysis.

In cycle 1, I tried to solicit views from pupils and my peer teachers using interviews, questionnaires and classroom observations. I interviewed 25 girls to ask them why they found reading difficult and to understand how they felt about learning English and my teaching. Out of 25 girls targeted, only seven could read well.

My colleague researcher observed my teaching methodology and the involvement of pupils during the lesson delivery. After his observations, he gave a comprehensive report on his observations.

From feedback given, I tried to action suggestions and recommendations to meet with pupils' own learning needs by introducing three to five letter words spelling and pronunciation. I repeated this method with my pupils several times and it yielded results.

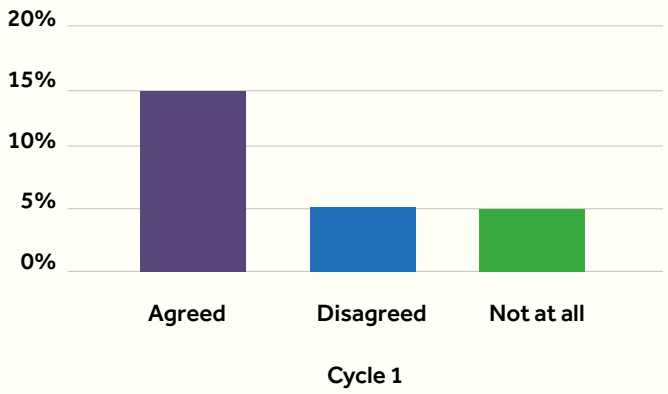
In cycle 2, I tried to improve on their spelling skills through role play (fun), pair and group work and by changing my aggressive behaviour. Since I had wanted to reach perfection, I created a warm and positive classroom atmosphere as a priority and introduced some enjoyable activities like intonations, blind reading and identifying punctuation marks. I then asked the girls the same three questions and two statements to see if my action plan and methodology led to change.

RESULTS

Cycle 1

On the question, 'why reading is difficult', five out of 25 girls said English was a difficult subject, three girls said they were shy and ashamed of reading, four girls said that they didn't want peers to laugh at them, and another four girls said reading was difficult to practice. Two girls said they did not understand English and three girls said they did not care about the English language because it was not their mother tongue. Two girls said that I needed to change my attitude and behaviour and that I needed to change my teaching methodology.

As the graph below shows, 15 girls agreed with the following statements: 'I don't like the subject/the teacher is aggressive'.

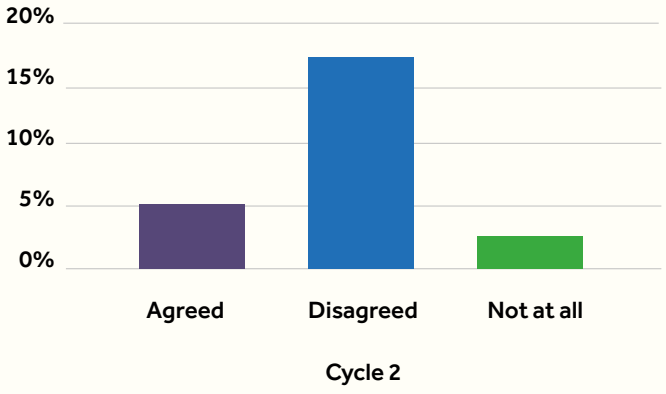


Cycle 2

As a result of the changes in my teaching during my second cycle of research, I noticed that 18 pupils said they enjoyed the activities and their confidence started to grow, little by little, in reading.

Two out of 25 girls said English was a difficult subject and two girls said they were shy and ashamed of reading. Six out of 25 girls said they see the need to learn English and five out of 25 girls said they felt comfortable and relaxed reading. Three out of 25 girls said the teacher needed to monitor the girls in class. Four out of 25 girls said they liked and enjoyed the fun through singing. Finally, three out of 25 girls recommended pair and group work in role play.

As the graph shows, more than half (17) of the girls in my class now disagreed with the statement: 'I don't like the teacher/The teacher is aggressive'.



WHAT I LEARNED

The application of pair and group work, singing in role play and efforts to change attitude in class helped me achieve my goal. I learned that girls thought that questions in class were meant for the boys and not them and this is not helpful. I also learned that girls that were not participating in reading English liked to make friends with each other rather than be closer to colleagues (boys) that can read and speak in class. I now understand that combining boys and girls in pair and group work is a good idea.

During the research process, challenges encountered were pupils' shyness, unwillingness to practice reading and inadequate logistical support. However, the study helped me greatly to know the answers to questions about improving the reading skills of girls and making learning enjoyable. I also learned that the teachers' attitude in class (aggressiveness) affects pupils' learning which I had not noticed.

Finally, I learned that girls' reading skills could only be improved through continuous motivation and follow up evaluation. As mentioned earlier, the need to take pupils' views very seriously determined my new approach and was the source of my success

MATHEMATICS

MATHEMATICS

Improving learning outcomes in mathematics is a priority for education systems, not least because national development requires workers and consumers who are economically literate. As a foundational subject, mathematics provides an effective way of building mental discipline and encourages logical reasoning. In addition, mathematical knowledge plays a crucial role in understanding the concepts underlying other school subjects such as science, social studies, and music and art.

Positive steps and continuing challenges

Sierra Leone has made positive steps to ensure the right conditions are in place to improve classroom practice in mathematics. These include training teachers and providing them with ongoing, regular external support; providing high-quality teaching and learning aids, such as lesson plans and pupil handbooks; and encouraging peer-to-peer support to develop a culture of improvement.

However, successive learning assessments in Sierra Leone have continued to show that pupils are performing at much lower levels than the grade they attend. In mathematics, only three per cent of JSS2 pupils (aged 13/14) can demonstrate skills expected from a pupil in their grade, whereas no SSS3 pupils (aged 17/18) are able to demonstrate mathematics skills at senior secondary level. These studies show that most pupils are performing at primary level of below, and 80 per cent of SSS3 pupils have fallen behind by up to five years. Many teachers are not aware of their pupils' learning levels and are faced with the dilemma of either teaching a curriculum that is beyond their pupils or teaching foundational skills that leave pupils unprepared for examinations.

Understanding pupils' dislike of mathematics

Teachers contributing to this research project were keen to identify other factors, especially in their own classroom practice, that would increase pupils' engagement with mathematics and improve learning outcomes. An important stage of the research was to seek pupils' own opinions as a basis for action, yet most teachers found that not all pupils are able to articulate why they do not like mathematics or why they find it difficult.

Teachers sought to understand the different behaviours that show pupils do not understand mathematics, and these included copying work, low exam results, being unable to complete homework assignments, not giving answers during class, and not participating in group work. Teachers also tried to find out why pupils like mathematics and found that whilst pupil punctuality and the willingness to participate in lessons were identified, positive attitudes towards how lessons were taught were factors that could be addressed directly.

Improving understanding of mathematics

A summary of teacher strategies to address participation and interest in mathematics shows several important areas of intervention. Firstly, the relevance of the subject has an important bearing on participation. Many pupils begin with a perception that mathematics is not relevant to them, and teachers were able to make efforts to explain and demonstrate to pupils the usefulness and connection of mathematics in daily life.

Teacher researchers found that using teaching aids can help learners better understand mathematical concepts. Using a number line, bottle caps for basic operations, and string to show shapes brings ideas to life and, in using items that are easily found, helps pupils see the relevance of the subject matter. The use of games or puzzles can also make learning more fun and can be applied relatively easily in mathematics.

A further area where teachers were able to see progress was in the pacing of lessons and allowing time for learning. Several teachers noted pupils found mathematics difficult and, on reflection, realised they were teaching too fast. Some teachers needed to go back and teach foundational skills. Others found ways to slow their pace and engage learners of all levels. For many, this could be achieved by using group work, so faster learners can support pupils who needed support.

Overall, the research studies showed that whilst pupils' participation and progress in learning mathematics remains a significant challenge, several teaching strategies could mitigate some of these challenges and engage and involve all learners in the classroom.

“I am quietly aware that I have made a positive contribution towards the development of mathematics with my pupils.”

Mohamed Sheriff (JSS1 teacher in Karene)

Aruna

HELPING MY PUPILS TO UNDERSTAND QUADRATIC EQUATIONS

RESEARCHER
ARUNA SIGISMOND KAMARA

SCHOOL
TOMLINSON HIGH SCHOOL

SUBJECT
MATHEMATICS

SSO
YUSUF KANU

DISTRICT
PORT LOKO

BACKGROUND

I always do my best to get my pupils to understand every topic I introduce in class. When I introduced quadratic equations and explained the methods of solving them, the class was unusually silent. They listened to me and copied without understanding the concept. When I gave classwork, they disappointed me by not being able to solve the problems correctly.

Therefore, I decided to conduct a study to investigate why my pupils find quadratic equations difficult or challenging.

THE STUDY

To do my research study, I asked my pupils to give feedback about the class, but they did not give it. This was because they found it difficult or impossible to give feedback about me. They felt shy and afraid because they did not know how to do it. I then formulated the following questions:

1. Why are my pupils not understanding quadratic equations?

2. Which aspects of quadratic equations do they not understand?

3. Do my pupils need extra classroom support?

4. What should I do to get my pupils to understand quadratic equations?

In cycle 2, I invited my principal and head of department (HOD) to observe my lesson and give me feedback. I started to get some answers to my self-reflection questions when I used pupils' feedback. Therefore, I asked more questions to the pupils that helped explain the situation:

1. Is the traditional sitting arrangement appropriate for the learners?

2. Am I delivering my lessons well?

3. Is the large class size (70 pupils) affecting pupils' learning activities?

4. Is the ability of individual pupils matched up with the class standard?

Based on observation feedback and recommendations made by my principal, I changed the seating arrangements in the classroom, introduced group work and divided the class into two separate classes.

In cycle 3, I tried to understand what my pupils liked and didn't like about the new method or approach.

RESULTS

I did not get a response from my pupils in cycle 1 but in cycle 2 they began to respond.

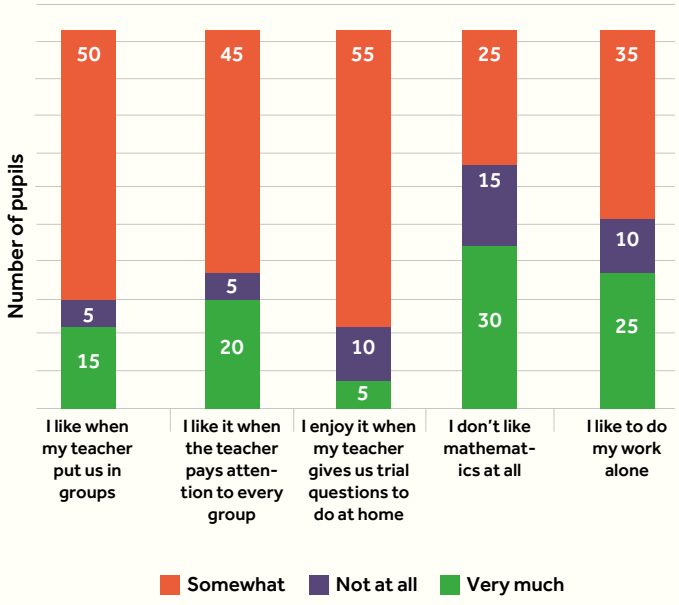
Challenges faced in class	No. of pupils responding "yes"
Is the traditional seating arrangement inappropriate?	65
Is the large class size affecting learning?	60
Is the teacher teaching too fast?	20
Are the teaching methods inappropriate?	10
Do pupils need extra class/ school support?	55

Cycle 2: Teacher Observation Checklist	Ranking
Content knowledge	Excellent
Pupils' participation level	Fair
Teacher/ pupil interaction	Good
Sitting arrangements	Poor
Group work or discussion	Poor
Teacher movement in class	Poor
Teacher giving attention to all pupils	Fair

From the feedback from the principal and colleagues, it was clear that I was knowledgeable about the topic and interaction between teacher and pupils was good but that there was room for improvement in pupil participation. Therefore I directed my attention to seating arrangements, group work and how I moved around the class.

After acting on the recommendations of my principal, I saw great improvement. At the end of cycle 2, my pupils started to give feedback more freely and participation levels were high and competitive. Some pupils were able to solve problems on the blackboard with confidence and the class size was reduced and manageable so I could move around to support the pupils in their groups.

Cycle 3: Pupil likes and dislikes



WHAT I LEARNED

The research work I undertook has widened my thoughts about how to solve classroom challenges or problems. I learned that there is no problem without a solution, especially in a classroom situation. The focus of my study was to help my pupils understand quadratic equations but what came out clearly was that classroom arrangements and class size was one of the main factors that was preventing my pupils from understanding the topic. During my research, I observed that most pupils' abilities do not match the class level and as such, they could not perform well.

I also learned that there are slow and shy learners in any class or group but that these pupils can do well when they are grouped with average and fast learners. This also helped me to manage fast learners who tend to dominate the lessons most of the time.

Ibrahim

IMPROVING PARTICIPATION OF PUPILS IN MATHEMATICS LESSONS

RESEARCHER
IBRAHIM SENESIE

SCHOOL
ST. JOHN'S, KANGAHUN

SUBJECT
MATHEMATICS

SSO
ABDHULRAMAN FOFARAH

DISTRICT
MOYAMBA

BACKGROUND

This research has been undertaken to meet the problem of pupils who fail to participate in lessons but nevertheless score high marks during internal examinations. It is focused on the interactions, participation of pupils, techniques used in the teaching of mathematics in our educational system.

Before this research work, decisions were taken without making further investigation but with the training conducted by this project and Leh Wi Lan, I have transformed my mindset, skills, techniques, behaviour and decision making. However, the objective of the project is to probe further into issues and avoid taking hasty decisions which do not yield any good results.

THE STUDY

To do this, I prepared myself and chose a lesson from the pupils' handbook which was about solving algebraic expressions by substitution of given values.

Before administering the tool that contained questions for pupils, I looked at the questions and decided how I would go about it. I tried to ask oral questions to see if feedback would be given and dealt with it accordingly where it wasn't given. Most of my pupils didn't give feedback. I decided to use a demonstrative method to help them understand clearly. I again asked individual questions and recorded pupils' views. After this, I made up my mind to discuss the matter with my colleague and principal.

I did my work based on the following:

- Colleagues' observation
- Pupils' perception
- Self-reflection

I started collecting data based on the research questions:

- What are the causes for pupils' lack of participation in lessons?
- Am I too hard with them?
- Are my topics at the right level for the pupils?
- Are my instructions clear?
- What areas do pupils need to improve?
- What kind of language skills do I use?

I decided to use questionnaires, interviews and reflective journal for my purpose.

In cycle 1, I prepared a closed question questionnaire for my pupils and began keeping a reflective diary.

In cycle 2, I changed my method of teaching based on the responses I got from the pupils. I started grouping or pairing them to do class work which was amazing. I started to get help from my co-researcher so as to be proactive. I divided the class into two: low participating pupils who score high marks, and participating pupils who score low marks.

What I learned from the two groups was that the low participating pupils who scored high marks were those with a lot of domestic work whereas participating pupils liked attention.

When I started bringing the two groups together and including all of them in solving exercises they were gradually improving.

In cycle 3, my class became more interesting and participatory, but I came to notice that I was contributing to my pupils' low participation in lessons. I also decided to embark on community dialogue by doing random sampling of the parents and pupils. I spoke with 17 parents and 22 pupils.

RESULTS

From my research, it appeared that my pupils were not participating in my lessons because they did not feel motivated, were fearful of me, and because they thought mathematics was a difficult subject. Most of the low participating pupils had lots of domestic work at home.

Pupils' perceptions of my lessons	Yes	No
Were all my instructions clear?	16	7
Do I motivate pupils?	30	5
Do I use different methods to check for pupils' understanding?	15	6
Were my questions evenly given?	30	4
Am I gender stereotyping?	30	2
Is my lesson inclusive?	30	2

I targeted the whole class because I wanted them all to participate in classroom activities. This is shown in the table below:

	No. of pupils participating in class
Cycle 1 - Lesson 1	4
Cycle 1 - Lesson 2	8
Cycle 2 - Lesson 1	10
Cycle 2 - Lesson 2	12
Cycle 3 - Lesson 1	16
Total	**50**

As the table shows, in cycle 1 less than one in ten of my pupils were participating in class. In cycle 3, this had risen to around a third of pupils participating in class.

WHAT I LEARNED

During this process I have learned that:

- If pupils are motivated by their parents at home, they will effectively and efficiently participate in classroom activities.
- Domestic work reduces the time they can spend studying at home.
- Group work helps pupils to learn amongst themselves.
- Children will only take active part in any activity when they are motivated, and the teacher uses skills and techniques to encourage them. I have learned that I should clearly identify the objectives of the lesson and share it with the pupils.

This research has given me an insight into my teaching profession and served as a training academy for me. Initially, pupils' participation was low, but with my interviews, questionnaires and dialogue with parents, I now better understand how to motivate my pupils to fully participate in classroom activities.

I can now use various skills, techniques and methods to deal with matters. I now admire their group discussions, with even those who do not usually participate now getting involved. My pupils can now come to the board to proudly solve problems, whilst I will be there observing. It has taught me that knowing pupils' views helps me share knowledge easily. My career has now increased, and I have the confidence to continue this journey.

Ibrahim

ENHANCING MY PUPILS' PARTICIPATION IN MATHEMATICS LESSONS

RESEARCHER
IBRAHIM SEPTIMUS LAMINE

SCHOOL
DURAMANI JSS

SUBJECT
MATHEMATICS

SSO
THOMAS P. KAINDANEH

DISTRICT
BONTHE

BACKGROUND

My aim as a teacher is to develop new skills and techniques that will enhance my pupils' participation in mathematics lessons. To achieve this, I often vary my method of teaching, but I always observe that a good number of my pupils don't participate in my mathematics class. I tried to find out why my pupils are not participating and ways to enhance their levels of participation.

This is important for my teaching because I wanted to promote effective and efficient teaching where all the learners could be involved and actively take part in learning mathematics. To succeed in this, I have to improve their level of confidence, especially in answering questions and forming a good relationship with me as their teacher. I must ensure that my class has been organised effectively in such a way that my pupils can feel free to express themselves and also ensure that every pupil is given an opportunity to participate.

THE STUDY

I tried to look out for ways that could help me go about investigating this problem. I first looked at some research tools like the reflective diary, pupils' feedback and colleague observation to understand what pupils did not like about my lessons or find interesting, and what they thought of my method of teaching. I realised that the use of research tools and evidence help encourage the participation of my pupils.

I went about my study in three cycles, each with a different direction and outcome.

In cycle 1, I started collecting information and evidence using research tools and exploring different sources which could provide better results. I prepared a questionnaire for each of my three tools.

For a colleague to observe my class, I prepared a classroom checklist. I invited two colleagues to observe my class for two lessons, with one colleague focusing on me while I taught and the other on the pupils. After the lesson both of them compiled what they observed and invited me in the staff room for a feedback. My colleagues advised me to improve on my method of teaching based on their feedback, especially the pace at which I explain subjects to the pupils.

I tried to look out for solutions to the specific difficulties identified. My teaching method changed in **cycle 2** to see how best my pupils could perform. I even came up with another classroom activity which is the 'work around and talk around' so that pupils feel less shy and have free opportunity to talk with each other based on what they are been taught by the teacher. I was able to exchange views with pupils to give them more confidence in their learning.

In cycle 3, I became an acute observer of my pupils to ensure that they used the methods that could best help their performance. In this cycle I involved every pupil in the learning, irrespective of their level of technical know-how. I improved on my teaching methodology, skills and techniques. I also improved on classroom activities like the independent practice and calling on pupils to prove their answers on the board and explain them to their peers. As a result, a good number were participating whilst others were trying to express themselves. Pupils should practise more in order to accumulate knowledge.

RESULTS

In cycle 1, I was able to find out the problems my pupils were going through in mathematics performance, although it was not easy for me to collect the required information. They had a lack of interest and skills in mathematics and they did not practise at home. Below the table shows participation in my class at this time.

Lesson	Number of pupils participating	Number of pupils trying to participate	Number of pupils not participating
Lesson 1	2	3	4
Lesson 2	4	2	3
Lesson 3	3	4	5
TOTAL	**9**	**9**	**12**

Feedback from my colleagues' class observations showed that, out of 28 pupils in my class, 19 were not participating simply because they were not involved in the lesson. They also identified that the pupils were doing whatever they felt like doing because there was poor monitoring on the side of the teacher.

In cycle 2, I decided to change my teaching method, encouraging pupils' views and group and peer work activities. The techniques used gradually improved on their performance.

Number of lessons	Questions answer in class	Enjoy the class	Not interested
Lesson 1	3	2	4
Lesson 2	2	4	2
Lesson 3	5	4	4
TOTAL	**10**	**10**	**10**

In cycle 3, I still had to improve on the method and techniques used in cycle 2. Their participation was great. They felt free in solving problems on the board. The slow learners were even moving from their seats to understand more about the concept of mathematics. And they finally realised that mathematics enables one to be visible, thereby solving problems that would otherwise be impossible. This simply implies that, the more the improvement in the teaching methodology, the more the participation of the pupil.

Number of lessons	Questions answer in class	Enjoy the class	Not interested
Lesson 1	4	2	1
Lesson 2	6	4	1
Lesson 3	6	4	2
TOTAL	**16**	**10**	**4**

WHAT I LEARNED

The research has greatly helped me with the problem of participation. I have learned how to collect data using different tools. I finally learned that effective and efficient leaning can help improve pupils' participation. Knowing pupils' feedback can help you promote effective and efficient learning. Pupils' interest and good feeling about mathematics helps to increase their success. I now have a cordial relationship with my pupils. I have already gained the ability to understand and integrate perceptions of my pupils and colleagues and it has even led me to reflect on my own teaching practice. I now possess new skills and techniques in my teaching to encourage greater participation in my class.

Benjamin

INCREASING THE PERFORMANCE OF MY PUPILS IN MATHEMATICS LESSONS

RESEARCHER
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SUBJECT
MATHEMATICS

SSO
ALHAJI ALPHA KAMARA

DISTRICT
TONKOLILI

BACKGROUND

The performance of pupils in mathematics at the Junior Secondary School (JSS) has been generally disappointing. Reports on the performance of pupils at the Junior Secondary School level, particularly in mathematics, according to the West African Examination Council (WAEC), reveal that less than 30% pass almost every year, and my school is not an exception. I have used numerous strategies to mitigate the problem, without a positive impact. If the foundation of my pupils in mathematics is strong, most of them will pass with better grades. A discussion with a colleague teacher in another school about the low performance of pupils in mathematics confirms that it is a general problem. I was worried about exactly how to enhance the performance of my pupils in mathematics lessons. It is for this reason that I decided to undertake this research study on the question: 'What should I do to increase the performance of my Junior Secondary School three (JSS III) pupils in mathematics lessons?'.

THE STUDY

To start my study, I focused on group discussion wherein colleagues from different schools, myself and the School Support Officer (SSO) met several times to discuss the issues they were also having, and the topic of their research.

The final discussion I had was with my Head of Department (HOD), who gave me relevant guidance about how to carry out my study. He suggested that I should prepare in advance and always plan my lessons according to the needs of my pupils. I accepted his advice and planned my lesson to address the following questions: 'Are my methods of teaching mathematics interesting?'; 'Are the pupils themselves interested in learning mathematics?'; and, 'Which method can I use to increase the performance of my pupils in mathematics?'.

The advice of the HOD and advance planning inspired me to hold a focus group discussion with the pupils to identify the reasons for their poor performance in mathematics. I also asked my colleague to observe me in my lessons where most of the pupils revealed that the method of teaching was the cause of their lack of interest and low performance in mathematics.

In cycle 1, I asked these closed ended questions in a focus group discussion with my pupils during the lesson: 'How many pupils are interested in my teaching method?' and 'How many pupils are comfortable with the method? Or prefer another method?'.

Based on the data I collected and my colleague's feedback, I did the lesson again, with the aim of rectifying my errors. After the lesson, I led a class discussion with the pupils by asking them questions about the lesson and the method in a form of questionnaire. The results inspired me to plan inclusive teaching techniques where my pupils would have opportunity to participate in the lesson and so improve their performance.

In introducing the demonstrative method of teaching, I invited a colleague teacher in one of my lessons to observe pupils' interest and participation in the new method. I asked a colleague to observe three of my lessons in order to compare the pupils and colleague's findings. I told him during the observation to look specifically at the following: my new teaching method, level of activity, and pupils' attentiveness and attitudes in the lesson.

RESULTS

Feedback from the first session revealed the following attitudes of the teacher and the pupils themselves.

My colleague observed that most of the pupils in the lesson were less engaged, not participating, and could only answer when they were asked closed-ended questions like 'Do you understand?'.

He also observed that I was only paying attention to a few pupils, especially those that are brilliant, and that I was too fast with the lesson at some points and I only concentrated on pupils in the front. He also saw that some of my pupils did not pay attention during lesson time, some talked unnecessarily, and some found it difficult to cope with the class activities. Most pupils were observed copying from their colleagues' books during the lesson.

Questionnaire results table shows findings from class of 50 pupils

Number of pupils participating	Number of pupils who answer yes	Number of pupils who answer no
How many pupils were interested in the lesson?	23	27
How many pupils were comfortable with the lesson?	15	35
How many pupils preferred another method?	30	20

My colleague's observation the second time revealed that most of the pupils were happy and actively participated throughout the lesson. He further suggested that I should repeat the lesson with the same method because it had created massive class participation that would increase the performance of the pupils. His observation result was similar to my personal reflection.

I further engaged the pupils in focused group discussion to know whether they were comfortable and interested in the new method that I applied in the last two lessons. Most of the pupils were comfortable and happy with the demonstration method because it gave them opportunity to fully participate in the lesson.

WHAT I LEARNED

The research helped me to discover that the teacher's method of teaching can affect the low performance of the pupil and this was evident in my two different methods of teaching used in the cycles. I discovered that most pupils were comfortable and interested in the demonstrative method that gave them opportunity to be active in the lesson. I have also learned that, for effective teaching and learning, the teacher must know the needs of the pupils. This will enhance pupils' participation and their learning outcome. In addition, I have learned that, by implementing the findings of personal reflection and others' suggestions, you can help a teacher's teaching to improve the performance of pupils in lessons.

I found it very difficult to carry out this study but vigorous consultations and meetings with colleagues, the head of school and even the pupils themselves, helped me to succeed. Collaboration and teamwork helped me to effect positive changes in cycles that improved the performance of my pupils in both class exercises and internal exams.

Morlai

WHY ARE JSS2 PUPILS NOT PARTICIPATING IN MY MATHEMATICS LESSONS?

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AFFIA COMMUNITY JUNIOR SECONDARY SCHOOL

SUBJECT
MATHEMATICS

SSO
HAWA CONTEH

DISTRICT
KOINADUGU

BACKGROUND

As a principal who doubles as a head of department (HOD) for mathematics teaching in Junior Secondary School, I am always curious to create a positive impact on learners. However, I'm sometimes disappointed in learners' attitudes towards mathematics. Before going to the classroom, I always prepare materials that I know will facilitate learning and aid learners to understand the key concepts of the lessons and relate it to their everyday life experience.

With all the creative teaching methodology I used, pupils were not participating as actively as I expected in my lessons. After a deep reflection on this appalling situation I noted it in my diary asking what, if anything, could be done to remedy this serious situation.

I decided on a study to find answers to these questions: what are the causes of lack of pupils' participation in my mathematics lessons? How can this be overcome?

THE STUDY

To embark on this study, I engaged with both the pupils and staff of the school in order to get their perceptions. I used the following tools to collect data:

- Self-reflection
- Classroom observation by peer teachers
- Focus group discussions

The discussions were so fruitful that it triggered my interest in understanding the prevailing circumstances surrounding lack of interest of pupils in mathematics, taking in to account my own teaching challenges. In the engagement, I was specific about how I came up with the research question.

A sample size of 50 pupils was selected from class and tools for data collection identified. I wanted to understand why they were not participating in the class.

In cycle 1, before the start of the first lesson, I rearranged the classroom to encourage active engagement and participation, putting pupils into five groups of 10 pupils each. I chose group leaders and trained them on how to administer questions to group members during question time.

There were spaces in between the groups that enabled me to move around the class to monitor their activities and help in case the need arose. I gave equal opportunity to all pupils to give voice to their thoughts and to take charge of their own learning, which helped me to get a deeper insight into their learning needs.

After each lesson I sought the pupils' opinions on the lesson taught, through the leaders in the groups. This interaction helped me a lot to understand reasons for poor participation in my lessons.

In cycle 2, I followed up on the progress in learning made in cycle 1 by bringing fractional games as a form of competition to increase pupils' interest in mathematics. I invited one of my colleague teachers to observe me. Before the task I gave him training on the areas where he should observe me. With this I prepared a set of questions for my colleague teacher who observed my presentation of the lesson from the opening right through to the end:

- My attitude towards learners during the lesson (e.g., respectful, disrespectful, interaction between me and the pupils etc)
- Am I spending too much time on my lesson? If yes, which part of the lesson (opening, introduction to new material, guided practice, or independent practice etc.)
- Look for any further inefficiency in my lesson delivery.

RESULTS

After the first cycle, where I changed the seating in my classroom and got my pupils to work in groups, there was a slight improvement in pupils' participation from 10% to 25% which, although good, was not good enough.

Feedback from my colleague teacher in cycle 2 highlighted key improvement areas for me. He said that most of my lesson was based on the 'talk and chalk' method (which means more of teacher-centered method). He said that, even when I asked questions, my focus was on the clever ones rather than the whole class.

Finally, he said that I spent more time on the opening and on guided practice and independent practice which made the lesson more boring to pupils.

After changing my methods based on feedback from cycle 2, I again asked a colleague to observe my class and share feedback. They offered more recommendations. With this I introduced reading clubs among the five groups I created and made the group leaders mentors to manage their own learning. I supported them by supervising the process.

Out of 50 pupils in the class, 10 pupils indicated that they did not participate in class because I did all the talking when teaching whilst pupils were passive listeners. During activities, pupils worked alone, and collaboration was discouraged. Teacher-centered instruction can be boring for pupils.

Eight pupils said that I teach too fast. 15 pupils indicated that they lacked the basic foundation necessary to be able to follow lessons in mathematics, and 17 pupils gave no reasons at all.

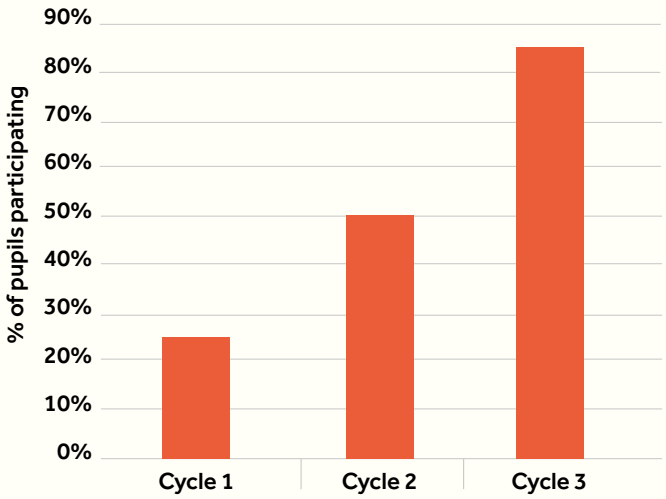
I adopted suggestions from these findings and saw a lot of improvement, with a rise from 25% to 50% in class participation.

In cycle 3, my colleague guided me on three more recommendations to help pupils build foundational skills:

- Organising reading clubs because most pupils lack reading comprehension skills,
- Giving more time to pupils to practise more exercises during guided practice and lastly,
- Giving more activities to pupils to practise at home.

I noticed a massive change from 50% to 85% when I introduced changes to my teaching based on this.

Chart showing progress made in the different cycles



WHAT I LEARNED

Generally, in my mathematics classes, I did not think about pupils' expectations. This study has changed all of that. It has made me realise the need to let every child have a choice in what I teach, and in how I teach it. I realise that pupils learn through playing mathematics games, grouping pupils like fast and slow learners also helps. These methods can make children learn more easily and make my work easier too. I have also learned that children learn better when they are introduced to interesting methods that motivate them most.

With the experience gained, and the different perceptions, I realise that children can only learn when you give them the opportunity to take full responsibility for their own learning.

This study has opened a window of opportunity for me to be more professional in my work as a teacher. Now I am always thinking about my class and the other teachers. Teacher research has helped me to reflect and troubleshoot the way or manner we deliver lessons in class. I want to encourage colleague teachers to simulate our work and improve effective classroom teaching and learning process.

Ajibu

WHY MOST PUPILS IN SSS1 LIKE MY MATHEMATICS LESSONS

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AJIBU JALLOH

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SUBJECT
MATHEMATICS

SSO
SHEKU COOMBER

DISTRICT
KENEMA

BACKGROUND

Every classroom has a few pupils who have negative attitudes towards mathematics. Mathematics problems are hard for them and they find it very difficult to understand. At Ahmadiyya Secondary School, Joru, I have a responsibility as the subject teacher to observe my pupils. During observations, I noticed that my pupils were always punctual in my class, and their willingness to participate in my lessons was incredible. Pupils always come to class even before the lesson begins. They also display positive attitudes towards my mathematics lesson delivery. I tried to find out why this was happening.

THE STUDY

As a subject teacher, I was amazed by the attendance of pupils in my mathematics lesson. Many pupils believed that mathematics was difficult and meant for 'born mathematicians' as they call it. The positive attitude my pupils showed towards my lesson presentations was unbelievable and I started to collect information about the reasons for their positive attitude in class during my mathematics lessons.

In cycle 1, I started to seek responses to my research questions:

- How appropriate is my methodology?
- Why are pupils always punctual to my mathematics lessons?
- What are pupils' attitude towards my mathematics lessons?

I involved pupils and colleague teachers in the dialogue to solicit information on why pupils showed positive attitudes towards my mathematics lessons. I designed a questionnaire which I administered to pupils, with open and closed-ended questions, and conducted one- on-one interviews. I also gathered information from my reflective diary based on my observations.

RESULTS

The results of the study revealed that the teacher's methods encourage pupils to be always punctual in his class. This is evident in the graph. It shows that mathematics gains the highest attendances in each term compared to geography and English language.

In addition, the study also revealed that the pupils have interest in mathematics as a discipline based on the positive attitudes they show always during lessons.

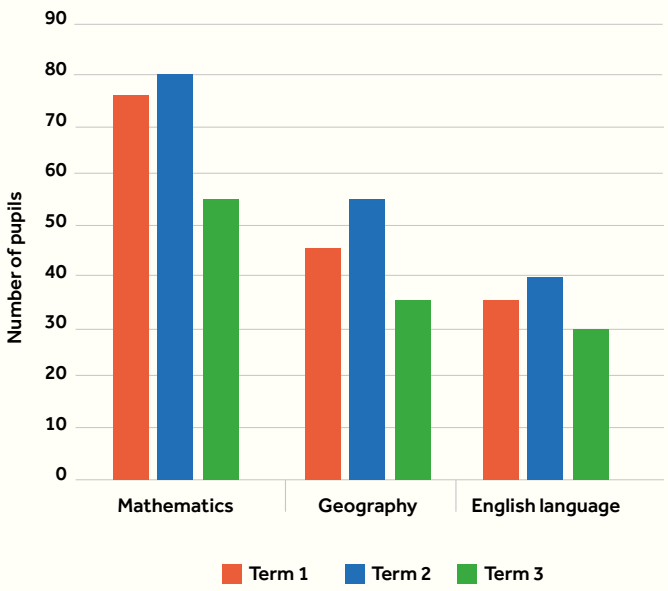
I asked 50 pupils to comment on whether six specific teaching methods were used often or not often in my lesson delivery. Their responses are in the table below;

Method of teaching	Number of pupils responding		Majority response
	Often	Not often	Often / not often
Demonstration method	38	12	Often
Discussion method	38	12	Often
Problem solving	39	11	Often
Activity	42	8	Often
Textbook	29	21	Often
Questioning method	36	14	Often

The results also revealed that the teacher used demonstration and discussion methods as it helped the pupils to relate mathematics problems to real life situations using flip chart, visual arts, etc. Also, other methods like the use of textbooks and questioning aided effective and efficient teaching and learning.

The data revealed that mathematics is responsible for the highest attendance in each term. This evidence was gathered from records in my diary supported by the daily attendance register of pupils in senior secondary 1 taking these three disciplines into consideration. This analysis can be illustrated in a bar chart shown below:

Pupil attendance



Statements	Number of pupils responses		Majority response
	Agree	Disagree	
I don't like mathematics	14	36	Disagree
I don't have a good foundation in mathematics	36	14	Agree
Mathematics is difficult to understand	22	28	Disagree
Mathematics is not relevant to me	10	40	Disagree
The methods employed by my mathematics teacher to deliver lessons make the subject interesting	45	5	Agree
The mathematics teacher does not entertain pupils questioning in class	6	44	Disagree
I am encouraged from home to practice mathematical exercises using textbooks	29	21	Agree

The table above shows the pupils' responses as they indicate their attitudes towards the subject discipline. Pupils like mathematics although most of them do not have a good foundation in mathematics.

It also revealed that the mathematics teacher encourages them or entertains questioning in the class, which helps the pupils to express their areas of weaknesses. The method I employ helps to stimulate the interest of pupils during mathematics lessons as revealed by the study.

It also revealed that mathematics is not difficult depending on the teacher's content knowledge and the methods used to deliver mathematics lessons.

WHAT I LEARNED

The findings revealed that a good method of teaching will positively affect the interests and performance of pupils in mathematics. Motivating learners and teachers will lead to high levels of performance in the subject matter. A teacher who is competent and believes in quality of work will always deliver effective and efficient lessons that arouse pupils' interest My learning from this research journey is quite significant as it has greatly helped to develop my professional career as a teacher. To start with, the whole research journey was very tough as it took me a lot of time to put together my tools for this data collection. I realised later that a good number of pupils failed to submit their responses to the questionnaire, which was one of the tools I used. My School Support Officer/teacher research mentor was also very proactive in giving me tips of support that I needed to put this research report together.

Abdulai

AROUSING JSS1 PUPILS' INTEREST IN MATHEMATICS

RESEARCHER
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AHMADIYYA JUNIOR SECONDARY SCHOOL JORU GAURA

SUBJECT
MATHEMATICS

SSO
SHEKU COOMBER

DISTRICT
KENEMA

BACKGROUND

I noticed most of my pupils did not pay attention in class. Some went out during mathematics lessons and some were busy doing something else in class while the mathematics lesson was in progress.

This became a concern to me as a teacher who likes monitoring the daily progress of my pupils. It was against this background that I decided to consult colleagues and get the children themselves involved in trying to identify the reasons for their lack of interest in my subject. I also wanted to encourage them to concentrate more in mathematics lessons.

THE STUDY

As a mathematics teacher, I was facing a lot of problems. Some questions came to mind as mentioned below:

1. Why did pupils stay in class for other subjects?

2. Why did they leave the class when it was time for mathematics?

3. What was wrong with my teaching methodologies?

To solicit answers to the above questions, I decided to collect information from colleague teachers, my school principal, parents/ guardians and the pupils themselves. I did the study going through three cycles as specifically mentioned below.

I started cycle 1 by collecting data from the pupils and colleague teachers with the use of questionnaires for pupils and interviews with parents and my principal. Colleagues were asked to supervise my lessons.

For the purpose of finding reasonable explanations for pupils' lack of interest in mathematics, I decided to introduce three data collection tools namely:

1. Questionnaire

2. Interview

3. Reflective Diary/Teacher's own reflection

Particularly for cycle 1, I used questionnaire and interview. The questionnaire aimed at finding out reasons for pupils' lack interest in Mathematics in Junior Secondary school 1, Ahmadiyya Secondary School at Joru.

Later I carried out the interview to find out why pupils lack interest in mathematics. Some pupils responded saying that mathematics is difficult. Others said that they definitely do not understand anything when the teacher is teaching and are sometimes too shy to ask questions. Some said they lacked textbooks and some didn't want to be monitored to do assignments/class activities for their own good.

In cycle 2, I reflected on my teaching pedagogy and how it might not have had positive effects in helping pupils stay in class when it is time for mathematics. I decided to refrain from giving corporal punishments to the pupils and I immediately I saw things starting to change.

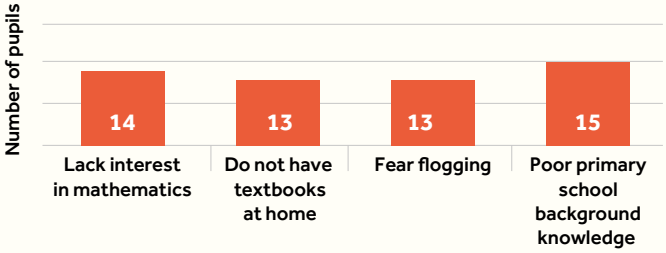
Above all, I saw pupils confidently staying in class for mathematics, with some signs of them doing assignments at home and actively participating in the lessons. The parents/ guardians also ensured their pupils were in school on time and did not allow them home until 2:00pm unless otherwise advised that the school was closed by the principal.

I was able to deliver the successes that I shall put forward shortly. Parents/guardians were strongly encouraged to reduce the domestic chores for pupils attending schools to minimise late coming. I also encouraged parents/ guardians to discourage pupils from coming home before the anticipated school finish time.

RESULTS

Responses to the questionnaire and interviews in cycle 1 clearly showed several reasons for pupils' lack of interest in mathematics. These reasons ranged from poor background knowledge in mathematics from primary schools and lack of teacher knowledge about content delivery, to lack of textbooks to encourage pupils to develop home study habits, lack of close monitoring of mathematics class activities by me, and domestic chores that contribute to lateness.

Out of 55 pupils in my class, 14 pupils said they lacked interest in mathematics, 13 pupils said they did not have mathematics textbooks to study at home or to practise mathematics in class, 13 said they feared flogging, and 15 pupils said they had poor primary school background knowledge in mathematics.



WHAT I LEARNED

Teaching and learning is never automatic. It is a gradual process between the teacher and learners. As a teacher, if we learn to share with the pupils the objectives of each lesson and deliver lessons following the objectives, then definitely we would see some improvement being made both in the teachers and pupils themselves. For the teacher, it will serve as a capacity development process. Pupils will gain more ideas and knowledge requisite to their success both at school and public examinations.

I learned that using harassment and corporal punishment is not a solution to problems for African pupils, particularly in Sierra Leone. Group work can solve some of the problems for a teacher. A leader of any group controls his/her members of the group.

I learned that, if you are very friendly with pupils, they will not be afraid to talk to you. Discussing matters with your head, peer teacher, school support officer and parents will give you a lot of understanding.

I have learned to believe the adage that says 'perseverance leads to success'. With much of my efforts, I am here today on the research journey. It came to a time when I almost dropped out, but the mentor Sheku Coomber stood by me very firmly so, through the grace of Allah, I am finally here today.

Later, I felt inspired by our normal saying that 'whatever men have done, a man can do'. I said to myself that I should be able to do it. Further I said I would learn a lot of writing skills and acquire new ideas and knowledge if I took part, which I did at long last. Honestly, I have learned a lot - how to carry out a research study, identify data collection tools and use these tools to obtain useful information to build my research topic write up.

I am excited to say that I have learned how to work with mentors and consultants as well. I have learned much about the qualities of an effective and efficient teacher researcher. I have learned also to report to the school support officer/mentor against stated deadlines.

I have also learned how to draw bar and pie charts, how to determine various portions of the bar and how to generate figures in degrees and percentages to represent pupils on the pie chart. I have also learned about teamworking and team spirit in terms of always giving support to each other.

Mohamed

EMPOWERING JSS PUPILS TO GRASP THE FOUR BASIC OPERATIONS IN MATHEMATICS

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ALHAJI LAMIN SIDIQUE MEMORIAL SECONDARY SCHOOL

SUBJECT
MATHEMATICS

SSO
DOMINIC MOHEMED IAMIN CONTEH

DISTRICT
KARENE

BACKGROUND

I am the mathematics teacher of JSS 1. During my introduction to lessons, I did not notice any pupils with difficulties in mathematics. Especially, when their results are high before coming to this class. This was because the National Primary School Examination (NPSE) syllabus covered the basic concepts. So I concluded that the four basic operations in mathematics were well understood. I realised that my assumption was wrong. I noticed that most of the pupils were weak and very few pupils were actually interested.

THE STUDY

To begin with, I invited a colleague to observe my teaching. After the lesson, he gave his assessment about my teaching. I grouped my pupils and allowed them to participate in solving the problems.

The lesson was about addition and subtraction using number lines and helped pupils understand the use of positive and negative signs. I used the Lesson Plan Manual and New General Mathematics book to teach the lessons.

I invited another mathematics teacher colleague to observe my lesson presentation. He did this and gave his feedback on his observation. I presented an exercise problem the whole class worked on together. I then gave another exercise for them to do in group work where one of them wrote up on the board. Most pupils responded positively and there were only few that still needed assistance. I changed the pairing of pupils so fast learners could give more help to slow learners. I used teaching aids such as seeds, bottle tops etc. to solve exercises and make understanding the lesson easier.

Most of the pupils were able to solve most exercises. From the practical lesson, most pupils did well in the class work. Pupils with difficulties were encouraged to work in groups with the smart ones. Hence the less advanced learners were able to learn from their colleagues.

I prepared questionnaires for pupils and colleague teachers to find out issues related to the study. I also interviewed other mathematics teachers to identify their methods for encouraging pupils' interest in mathematics.

In cycle 1, I decided to address class problems in a friendly way. I become more friendly than before, because I wanted to discover what was really preventing my pupils from understanding mathematics.

I introduced the use of addition and subtraction signs and explained how to solve exercises on addition and subtraction lessons. I asked pupils to bring local materials that were suitable for the exercises. We used these materials to solve exercises. Most pupils were able to solve simple problems in relation to the operations. I paired those that could not solve the problems with those that could.

Also, I asked each group to do their presentation by appointing a group leader to do the solving on the board. I did similarly with multiplication and division exercises. At this time most pupils were able to solve the exercises and assist their colleagues.

In cycle 2, I introduced exercises with a story problem related to the basic operations. We jointly interpreted the exercise and we solved the problem. I set up a group work exercise with some doing the solving, some interpreting the statement and the others doing the presentation on the board.

In cycle 3, we used the board to solve different exercises relating to both the operations. I became more friendly, a facilitator and a motivator. During this cycle more improvement was made by pupils.

RESULTS

From my research, it is quite clear that most of my pupils did not attend mathematics lessons, especially the basic operations lessons, because of fear of the corporal punishment or unfriendly treatment. As well as learning that this was inappropriate methodology and did not motivate spirits, I learned that doing mathematics lessons within the first three periods before lunch, when the brain is fresh and ready, helps pupils to absorb materials.

Feedback from my colleague teacher summed up the factors resulting in pupils' poor performance in the four basic operations in mathematics as:

- The methodology and negative attitudes of colleague teachers teaching mathematics;
- Corporal punishment and unfriendly treatment by teachers to pupils;
- The failure to motivate by recognising pupils' good performance.
- Unavoidable absence for mathematics periods on the school timetable.

Table representing factors that brings about positive learning with the four basic operations in mathematics

Factors	Friendly Classroom	Timetable Adjustment	Motivating Learners	Group Work	Puzzles	Teaching Aid
Percentage of pupils who agree	95	70	85	50	45	60

WHAT I LEARNED

This study has been an eye-opener for me. From the initial meeting, I got the clues I needed to solve the problem in my school. Teachers should create a friendly classroom atmosphere, use motivating words to encourage their learners. They should also use proper teaching aids, apply mathematics puzzles, and set suitable periods for some core subjects to suit their learners.

I have identified these factors by looking closely at the results of the various statistical investigations and interviews from colleagues and pupils on the difficulties with my pupils in relation to the four basic operations. I then adjusted my teaching methodology with the concerted efforts of my pupils in their tasks to achieve their respective objectives and I am quietly aware that I have made a positive contribution towards the development of mathematics with my pupils.

Abdulai

JSS3 PUPILS' DIFFICULTIES WITH THE ADDITION AND SUBTRACTION OF DIRECTED NUMBERS

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SCHOOL
NATIONAL ISLAMIC

SUBJECT
MATHEMATICS

SSO
FONDAY KAMARA

DISTRICT
BO

BACKGROUND

The analysis of JSS III pupils' performance in mathematics tests indicates that learners experience difficulties in working with directed numbers.

The subject of directed numbers is one of the topics that constitutes fundamental background knowledge needed in areas of mathematics like algebra and higher mathematics. If not addressed, this difficulty will always contribute to the poor performance of pupils in mathematics and all calculations involving directed numbers, for example -2+3, -3+(-4), -6-(-4).

Most teachers of mathematics today will accept the important role that pupils' attitudes play in their ability to learn addition and subtraction of directed numbers and the use of integers.

This research has been designed to investigate challenges pupils face in answering questions on this topic.

THE STUDY

I used the following tools in my study:

I. Self-reflection: I asked myself questions and reflected on my lessons everyday

II. Pupil feedback

III. Interviews

At the beginning of my study, I was able to engage colleague teachers and interviewed them on this problem. I asked questions or used a questionnaire which I shared with colleague teachers and my principal, as well as departmental head of mathematics.

I interviewed colleagues on the misconceptions and errors in learning of addition and subtraction of directed numbers. I also asked my pupils questions through face-to-face interviews. Their feedback indicated that learners experience difficulty in working with directed numbers.

After using new approaches to improve on pupils' understanding, I tried different techniques to address the misconceptions about learning addition and subtraction of directed numbers. As a result, my pupils' participation increased, or they learned faster, or their work improved.

From my discussions with three pupils, I also learned that my skills in mathematics and methods of application have been the reason for pupils' misconceptions in solving problems using number line. However, I rated myself on a five-point scale each day after lessons and was able to gradually improve on their understanding and readiness.

I asked pupils to give their opinions on the operation of positive and negative numbers on number lines (on a diagram) and engaged three additional pupils from different parts of the classroom to see what they had understood from a lesson.

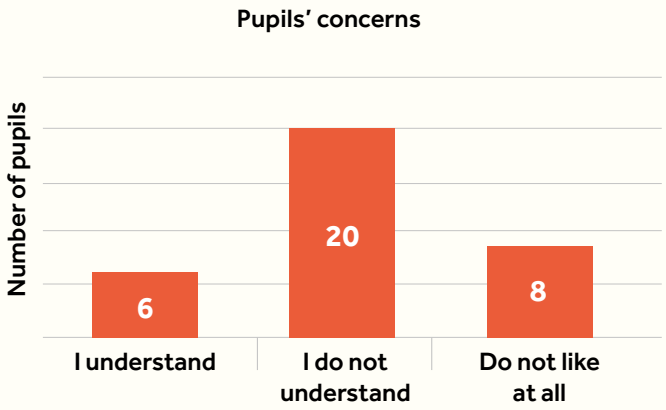
I also interviewed other colleagues to see whether they encountered the same or similar problems in teaching in their own subject areas and asked them to observe my lessons.

RESULTS

Only six out of 34 pupils said they understood the method and application of solving problems on directed numbers. Most other pupils said either they did not understand (20) or did not like the topic (eight), which greatly accounts for the misconceptions.

Specifically, pupils seemed to have an issue with using the number line and adding numbers together. My interviews with other teachers highlighted that they also had similar problems with pupils not understanding or not liking the subject.

Table representing factors that brings about positive learning with the four basic operations in mathematics



WHAT I LEARNED

From carrying out this research, I came to see that some teachers' attitudes are negative in solving mathematical problems. The methodology of teaching mathematics is in some cases very poor and, in some instances, even involves flogging pupils.

Most pupils have mathematical phobia and they are also not interested in using mathematics textbooks, calculators or mathematical sets in class. Therefore, they will not urge their parents to buy those materials. I also noticed that the topic itself is very difficult for pupils because most of them did not go through the topic in the lower classes (JSS I and JSS II) and so they are doing it for the first time in JSS III.

I became a keen observer of my own performance. Before my action research, I often blamed the pupils. In the process, I engaged the parents of the pupils. I began to take help from my principal or head of department and my peer teacher (colleague) so as to be proactive in the next lesson or period and improve in my lesson time.

ENGLISH LANGUAGE

ENGLISH LANGUAGE

To realise their potential, all children need the foundational skills that can provide a gateway to acquiring competencies and learning school subjects. The most fundamental of these skills is literacy. Without basic reading proficiency in English language, children will most likely fail to become literate and, because English is the mode of instruction, are at higher risk of dropping out of school altogether and are unlikely to simply catch up over time. It is essential, therefore, that pupils are supported to improve English language skills, and many teachers used their research study to identify effective teaching strategies that would increase the rate of progress.

Navigating the use of multiple languages

Sierra Leone has been investing in English language instruction for several years. Yet, whilst recent learning assessments found that pupil performance in English is marginally better than performance in mathematics, only 12 per cent of pupils are performing at grade level or above in JSS3 and 50 per cent of these pupils are performing at primary level. In SSS3, even though performance is higher than in mathematics, the top five per cent have still fallen behind by two years.

In Sierra Leone secondary schools, where English is the medium of instruction for all subjects, many pupils cannot access learning due to low levels of English. For example, they cannot read pupil handbooks properly and, in some cases, fail their examinations if questions are not read to them. The use of local languages and mother tongues alongside English also creates challenges for both teachers and pupils. Krio is often used as the lingua franca, with ample code-switching between English and Krio observed in classrooms. Sierra Leone's Free Quality School Education programme has enabled large numbers of first-generation learners and learners from diverse language backgrounds to access secondary education for the first time, but the use of English restricts their learning experience.

Understanding gaps in English language learning

All the teachers who conducted their own research understand that the causes of this difficulty are rooted in wider issues that have developed before pupils reach their secondary school classrooms. Teachers found that many children do not speak English, nor have access to reading material at home or in their community. By the time they reach secondary school, a significant proportion of children have not built foundational skills in English.

Whilst bringing about significant immediate improvements to learning outcomes in English is not a feasible outcome of teacher research, most teachers focused efforts on improving pupils' confidence and motivation in the knowledge that this would bring benefits over the longer term.

Solutions to improve English language learning

Research studies showed that teachers have mixed views on the use of multiple languages in lessons. Some teachers report reprimanding pupils for their use of the mother tongue. However, one teacher notes that, on trying this approach, pupils then said nothing at all in the lesson. Some teachers preferred using both English and local language to help pupils understand. These teachers report positive effects of using local language alongside English, with more pupils being able to access the learning.

However, one of the most revealing findings from the research was the importance of teachers adapting the pace of their teaching according to pupils' language levels. Importantly, through discussion with pupils, teachers reported that they became more accepting of the current level of pupils' English. As a result, they moderated their teaching style by speaking more slowly, predicting any difficult words or texts, giving time to pupils to practise saying the words, and correcting pronunciation mistakes, as well as giving pupils time to read on their own.

In addition to pacing and providing more time for pupils, many teachers used their research to adopt new classroom techniques to make use English more engaging and fun. These approaches included activities such as storytelling, drama and debates, and group work to enable pupils to practise talking together in English. Teachers' research also found that creative use of materials benefited pupils' learning, including using texts that are at the level of the learner and are interesting to them, and allowing those that have them to bring texts from home to read in class. Teachers developed other engaging extra-curricular activities such as such as reading clubs and reading news in assembly.

The key finding across the research studies that focused on English language was the importance of teachers attempting to meet pupils at a level that they feel comfortable. Recognising the difficulties they face appeared to be a critical step in moving onto applying approaches that encourage pupils to engage and enjoy the learning process. This recognition can lead to small but important actions that were found to transform experiences for pupils in the classroom.

> "Before the research, and at the early stage of the research, pupils were very tense and afraid when asked to read. You could even sense fear in some of their voices. After I implemented changes to how I taught, they were more relaxed and confident in class. Reading had become a joy rather than a chore."

Elyn Marthar Mansaray (Teacher in Western Rural)

Ambrose

PUPILS' PERFORMANCE IN MY ENGLISH CLASS

RESEARCHER
AMBROSE MASSAQUOI

SCHOOL
ST. PAULS SSS

SUBJECT
LANGUAGE ARTS

SSO
AMARA BRIMA

DISTRICT
PUJEHUN

BACKGROUND

Improving the performance of pupils in my English lesson has been my focus. I discussed this with colleague teachers. I was advised to interview one-third of the class in order to find out the root cause(s) of this poor performance in English Language.

THE STUDY

In a bid to remedy the solution to this problem, I decided to do some further research into the issue. I wanted to compare different approaches.

In cycle 1, I first tried the individual work and saw that there were very few pupils who performed to my expectations in the two classes I taught. I realised that when you are working alone, you don't usually have the opportunity to share opinions with colleagues. Since there were more slow learners in the two classes, my first experiment proved that their performance was low.

I invited a colleague teacher to observe me while teaching and, to test the opinion of my pupils, I prepared a questionnaire and gave it to some pupils to fill in. I jotted down their views in my diary. Some of the areas they highlighted were the use of cane in my class and the non-cordial teacher-pupil relationship.

Based on their feedback and the feedback from my pupils, I adopted a pair work strategy **in cycle 2.** I changed the seating arrangement to suite the method and I set class work on comprehension to be done in pairs. I went round observing them. I looked at their performance and it was a little encouraging.

In cycle 3, during the last month of term, I tried the group work system. I split each class into groups of five, the intelligent ones being the group heads or leaders. I went round the class observing the progress of the groups while they were working. At the end of the period, I collected the given work from every group and marked them. During the marking exercise, I realised that more pupils were finding that working in groups was more productive.

RESULTS

Feedback from my colleague teacher during cycle 1 identified the need for giving clear instructions and introducing pair or group work. I noticed that pair work and group work were both effective. However, in the first class where they worked in groups, seven out of the ten groups came out with flying colours. In the second class, the pupils worked in pairs. Here, only ten of the pairs did well. Hence, the group work strategy was found to be more effective than the pair work strategy. In comparison, I noticed that the above two strategies were more effective than working individually.

WHAT I LEARNED

There were so many things in my teaching that I found unprofessional and outdated. Firstly, the use of the cane in the classroom was found to be one of the habits that discouraged pupils in class because it makes them fearful. I have completely ceased from using the cane. A teacher-centered approach to my teaching had created a poor teacher-pupil relationship. By introducing more child-centered activities, pupils increased their participation and involvement in class. The more activities they did (though sometimes wrongly), the more positive praise helped to improve their self esteem and confidence. This resulted in improving the relationship between the pupils and me in many productive and professional ways.

The research helped me to realise that it is more important to accept each student's views or opinions when planning classroom activities. I also realised that being flexible enough to respond to the needs and preferences of my learners is very necessary. I also learned that some pupils are unable to study at home due to lack of space and light in the evenings.

From the experience gained I will try to encourage colleague teachers to adopt the group work pattern as it has proven very productive and result oriented. I now strongly believe that innovative approaches by teachers help to address pupils' needs and preferences. The skills and strategies learned during this research activity have started having positive impacts on pupils' performance in English language.

Mambu

PUPILS' ABILITY IN READING COMPREHENSION PASSAGES

RESEARCHER
MAMBU MANSARAY

SCHOOL
MICHECK MINAH MEMORIAL SSS

SUBJECT
LANGUAGE ARTS

SSO
AMARA BRIMA

DISTRICT
PUJEHUN

BACKGROUND

I realised that pupils in my language arts lessons usually find it difficult to read and understand comprehension passages. Sometimes, they seemed bored and unconcerned about the lessons and that affected their class participation; making them perform poorly in both internal and external examinations.

At first, I reproached pupils for their poor performance in language arts without recourse to my teaching strategies and constraints faced by them during the lessons.

However, I realised that the roles of pupils in the lessons and the methods of teaching were paramount to improving learning outcomes. Therefore, I had to change both my ideas and teaching methods.

THE STUDY

In cycle 1, I embarked on data collection. I administered questionnaires and selected a sample of 20 pupils from the class to answer the questionnaires individually. Below are two of the research questions:

1. Do you like reading comprehension passages?

2. What are the challenges you face in reading comprehension passages?

The responses I received from the pupils gave an account of the challenges they faced in reading comprehension passages. I reflected on my roles and responsibilities as a classroom changer and held discussions with learners after each lesson and their responses were noted for appropriate action.

During the discussion, some learners were excited about the teacher requesting their opinions about the lessons for the first time whilst others were too shy to even participate. However, the discussion provided me with some useful tips on the challenges that pupils faced during my lessons and solutions to these challenges.

Moreover, I interviewed the principal and colleagues to get an insight into their own experiences of learners. The detailed account revealed poor reading ability in other subjects as well. Lastly, my personal attitudes towards pupils' getting it wrong constituted a threat, especially for weak learners.

All the evidence collected from colleagues, the principal and pupils helped me to introduce changes during **cycle 2**. I selected short and interesting passages that related to the everyday life of the pupils. This enabled the pupils to see real life situations in my lessons and the boringness associated with long and complicated passages was removed.

Similarly, I gave them the opportunity to bring written stories to class to be read as passages during the lessons. I received plenty of stories and every pupil opted to read his/her own story in the class. This enhanced healthy competition among the pupils and also increased their interest in reading comprehension passages.

I introduced code-switching in my teaching in which I explained concepts the learners find difficult to understand. This enhanced the active participation of pupils who found it challenging to express themselves in English.

In cycle 3, I introduced news reading in the assembly. The pupils were encouraged to read news and address their peers. This built the confidence level of the pupils and enhanced fluency in reading comprehension passages. I also conducted several quizzes and debate competitions. This enabled learners to enjoy speaking English and this in turn contributed greatly to them achieving learning outcomes.

Furthermore, I created a buddy system, where I paired the learners based on their ability levels during lessons. This created a much more inclusive learning atmosphere as pairs were robustly engaged in supporting each other during and even after lessons. The shyness and provocation that had disrupted participation during cycle 2 were now a thing of the past. This whole study lasted for three months.

RESULTS

Cycle 1 of my engagement with the learners looked at whether they like reading comprehension passages and any challenges they face. The table below shows their responses.

Question	Pupils' responses	
	Yes	No
Do you like reading comprehension passages?	2	18
Do you find my lessons interesting?	5	15
What challenges do you face in reading comprehension passages	Lack of interest in reading, inability to speak English, poor study habits, language barriers, pronunciation difficulties and many others	

Given this evidence, in cycle 2 I embarked on making reading more interesting in order to address the concerns raised by the learners. I selected short and interesting passages that related to the everyday life of the pupils. I allowed pupils to bring their own stories. I used code-switching to explain some words and phrases that pupils don't understand in English

Next, I introduced news reading in assembly to build confidence and quizzes to make reading fun.

After the implementation of diverse strategies, I did a follow-up activity which showed tremendous improvement in the level of understanding comprehension passages. The evidence is given below.

Do you find it difficult to read and understand comprehension passages?		
Yes	Sometimes	No
0	3	17

WHAT I LEARNED

As a classroom teacher, I used to face lots of challenges with my pupils, but this research study has provided me with the necessary skills to overcome these. I will continue to further explore opportunities to improve teaching and learning opportunities in my school.

At the inception, I wasn't sure that I would be able to successfully complete this work because of my workload in school. I overcame this fear by giving it a try and the experience changed me as a career teacher and impacted positively on my learners. The experience I gained from this research has changed my way of working. I have clearly understood the relevance of involving learners in lessons. However, pupils with learning impairments, such as the blind and the deaf, were facing challenges which I could not support. It is therefore my wish to explore ways of supporting such learners in the lessons.

The commitment I demonstrated during this study and the cooperation I received from pupils led to the success of this work.

The excellent working relationships I enjoyed with the principal, colleagues and SSO enabled me to understand the powers of teamwork and this helped me throughout this study. The support I got from colleagues provided me with ways of making the lessons interesting which yielded lots of positive results.

Sorie

THE STORY OF IMPROVING PUPILS' READING SKILLS

RESEARCHER
SORIE DUMBUYA

SCHOOL
THE DAVID SCHOOL

SUBJECT
LANGUAGE ARTS

SSO
YUSUF KANU

DISTRICT
PORT LOKO

BACKGROUND

In my five years of teaching language arts in Junior Secondary School (JSS), I have discovered that most of my pupils do not know how to read and, as a result, they have reading problems, especially during examinations. Also, many of my pupils could not properly read their textbooks or even the notes given to them in their various subjects making it more difficult for them to pass examinations unless the questions are read to them. This prompted me to carry out this research to understand the reasons why my pupils could not read well.

THE STUDY

I tried to find out an effective way of supporting my pupils to read, as my ambition is to see that my pupils read well. I did some self-reflection and asked myself the following questions:

- Why are my pupils not able to read well?
- What influences my pupils who are not reading well?
- How can I help my pupils to read well?

I also interviewed my pupils and my colleague teacher. I completed two cycles in this research.

To facilitate my research, I tried to find out the common causes behind my pupils' poor reading by conducting interviews. In my interviews, I was able to ask the following questions:

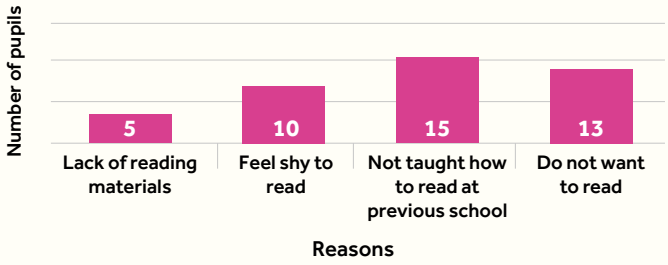
- What is your problem with reading?
- What disturbs your reading and why are you not able to read?
- How can I help you to read?

reading exercises in response to the feedback I got from my pupils. While reading, I asked them to select the textbook they liked reading best and I read it aloud while they listened to the pronunciation of the difficult words. I again asked them to read it aloud while I listened to the way they were reading. At the end of their reading, I made corrections to some words where necessary. Then in cycle 2, I paired better readers with slow readers.

After asking my pupils their likes and dislikes, I noticed that more improvement was necessary as I still had pupils struggling to read well and wanted equal participation among my pupils. I invited my peer colleague to observe my lessons again. In the end, he recommended that I should improve on time management. Having been observed by my colleague, I asked my pupils what they thought of my new teaching method.

RESULTS

The graph below shows why pupils believe they cannot read well.



After I completed my first cycle, my pupils began to like reading and could read aloud and pronounce words better than before. I then asked them their likes and dislikes (table 1)

Table 1: Pupils' likes and dislikes

	Very much	Somewhat	Not at all
Like to read by myself	9	4	30
Like when the teacher reads for us	25	13	5
Don't like reading	7	10	26

I then asked them for further feedback on the new teaching method (table 2).

Table 2: Pupils' feedback

	Yes	More or less	No
Do you like the new method?	30	0	2
Do you feel shy when asked to read?	0	3	30
Do you like reading?	30	13	2

WHAT I LEARNED

Reading is the heart of any formal learning situation. In as much as this remains so, it becomes clear to all learners, teachers, and sponsors of formal learning that gaining reading skills at the primary stage is very important for a positive attitude towards reading. Findings in this study have shown that pupils alone cannot be blamed for the problems of poor reading. However, I have learned a lot from this study. It has helped me to realise that one can solve classroom problems even without the involvement of the principal or external body. Through this study, I have learned that through monitoring, observation and peer work activities, pupils can learn better and change positively. I again learned that one method cannot solve all problems in the classroom and different approaches can be used. Pupils do better if they are allowed to take part in their own learning.

Saeed

ENCOURAGING PUPILS TO PRONOUNCE WELL AND OBSERVE PUNCTUATION WHILE READING

RESEARCHER
SAEED ALHASSAN KAMARA

SCHOOL
TOMLINSON HIGH SCHOOL

SUBJECT
ENGLISH LANGUAGE

SSO
YUSUF KANU

DISTRICT
PORT LOKO

BACKGROUND

After two years of teaching my senior secondary school (SSS) pupils, I was surprised to find out that most of them could not pronounce well and observe punctuation while reading. I noticed this when, one day, I asked them to take out their books and read aloud. From the tone of their voices, I found out that most of them could not pronounce well. I felt bad when I noticed this. I wonder why this was happening at this level. Therefore, I embarked on research and subsequently found methods to help them pronounce well and punctuate better when they read.

THE STUDY

I divided the research into three cycles. At first, I asked myself these few questions:

1. Who/what is responsible for this?
2. Why is it that they cannot read well at this level?
3. How can I help them to be better readers?

The above questions were important because they helped me to understand my pupils' reading problems and how I could help. I went further to get the pupils' views and discuss the issue with colleague teachers.

I interviewed pupils individually to get their views and asked them why they could not pronounce words well; whether they were shy about reading; and how I could help them become better readers. I also asked them about reading at home.

Based on their feedback, I introduced continuous reading to the pupils and helped them to pronounce unfamiliar words and use punctuation when reading.

I read out loudly to them and asked them to repeat after me. I underlined certain words – ones that I knew they could not pronounce well – as key words. When reading, I paused and stopped where necessary. At the end of this cycle, my pupils started to develop an interest in reading and learning more spellings.

After I noticed some improvements in their reading, I called one of my colleague teachers to observe my class. I made some further changes.

In cycle 2, I continued with the continuous reading and pronunciation. However, this time around, I decided to group pupils. I put those that could and couldn't read well together and I made the groups compete with each other. I graded groups or individuals that performed well in the reading and spelling competitions. This made every group become serious in their reading. I did all the above in this cycle because I wanted every student to be able to read well.

There was another problem I needed to solve: the manner in which they pronounced words. I noticed that I needed to show them how to pronounce any word they came across. Therefore, I did this in cycle 3. I continued with the reading process and grouping and showed them how they could pronounce big and unfamiliar word using syllables and how to pronounce words with silent letters.

In each cycle of the research, I used the journal to record problems, feedback and solutions at each stage.

RESULTS

During my research, I found out that a large number of my pupils couldn't pronounce big and unfamiliar words and had problems with how I teach.

Table 1: What causes pupils not to read well?

Reason	No. of pupils
Can't pronounce big and unfamiliar words	15
Poor reading foundation at Primary level	4
Fear of being teased	7
Lack interest	5
Teacher's teaching methodology	14

Table 2: What do you think of the new method of teaching?

	Very much	Somewhat	Not at all
Like the new method	35	10	0
Don't like reading	0	10	30
Like when the teacher read	40	5	0

After introducing group work, I called my colleague to observe my class again. He noted that there was improvement among my pupils and suggested that I should focus on classroom management for better class participation.

After my colleague's observation, I asked my pupils about the new method:

	Yes	No	More or less
Did you like the new method?		5	02
Do you like reading?	35	0	10
Do you feel shy when ask to read?	15	30	0
Is my class interesting and inclusive?	40	0	5

Even more of my pupils said they liked the new method and many more said they were enjoying reading compared to during the first cycle. At the end of cycle 3, I noticed that my student could now: spell much better than before, challenge and compete with one another in reading and spelling and start to sound out certain letters in any word they came across.

WHAT I LEARNED

During this research, I learned that classroom problems could not be solved at once, but in stages. Any teacher can solve classroom problems if she/he is trained and equipped to do so. Carrying out this research has helped me develop new skills on how to find and solve classroom problems. It has made me change my attitude towards my pupils and my method of teaching.

I also learned that pupils can do better if they are given the chance to give feedback and if they are involved in classroom activities.

I also learned that seeking or consulting other colleague teachers on classroom issues will help to solve a lot of classroom problems because it is often said that "No man is a reservoir of knowledge".

Julius

IMPROVING PUPILS' READING ABILITY

RESEARCHER
JULIUS GOBA

SCHOOL
ANSARUL ISLAMIC BOYS SSS

SUBJECT
ENGLISH LANGUAGE

SSO
HANNAH THOMAS

DISTRICT
KONO

BACKGROUND

As a Senior Secondary School (SSS) teacher, I enjoy monitoring my pupils' progress. It was during such a monitoring activity that I realised that most of my pupils in the final year of their SSS course could not read well. It became a serious concern to me, which I vowed to address.

THE STUDY

To enable me find out the cause or causes of this problem, I engaged the pupils themselves, colleague teachers and some school authorities to find a lasting solution to the poor reading ability of my pupils.

The study was undertaken in different phases. I initially observed the pupils reading in different lessons and my observations were recorded in my personal diary. I also encouraged other teachers to observe my reading lessons and give their feedback. Their feedback was both positive and negative, but I chose to concentrate more on the negative comments about my lessons, and their views were also recorded. Before conducting an interview session with the principal of my school I structured the following research questions: "What is wrong with my reading lessons?"; "How can I help in improving my pupils reading ability?"; "Why is reading important for my pupils?".

In cycle 2, I distributed open-ended questions to 40 pupils so that I could investigate why they found reading very challenging. It was evident that most of the pupils did not practice reading and did not read extra materials, only their subject notes.

Furthermore, I organised several reading and pre-reading activities that motivated the pupils to get involved in the classroom reading activities. I regularly repeated those reading activities and, after some time, I noticed an improvement in some of my pupils' reading.

The responses I received from the pupils encouraged me to take action to try to solve the reading problems. I encouraged my pupils to read extra materials outside their subject notes to help expose them to different vocabularies used in different disciplines. The reading activities for pupils were increased.

Based on feedback I got from a colleague, I started assigning reading tasks to my pupils and allowed them to read by themselves instead of asking them to read after me. I also started asking pupils to take note of difficult or strange words found in prescribed reading texts, and I helped pupils with the pronunciation and identification of the classes of some words found in the texts. Later, I started seeing an incredible improvement in my pupils' reading ability.

As if the observation from my colleagues was not enough, I also engaged the principal of my school to monitor my lessons the following month. Pupils were now reading by themselves instead of reading after me, and I helped them with the pronunciation of difficult words. However, the principal observed that I only concentrated on the pupils in the front rows of the class and needed to include pupils from elsewhere in the classroom.

In cycle 3, I selected the third chapter of Buchi Emecheta's novel, "Second Class Citizen", to test pupils' reading ability. I had observed that they were familiar with most of the passages in the handbook, so reading a strange material could bring out the best in them.

It was satisfactorily read by most of the pupils occupying the front seats of the class.

I began to give more attention to the pupils at the back of the class and others in the middle seats so that I could cater for the learning needs of all the pupils as advised by the principal. After few weeks, it became clear that more than half of the class could read different materials and with ease.

RESULTS

The study produced some stunning results. My pupils now read with much fluency and made few mistakes in pronunciation and intonation. Reading has become competitive as many hands are now raised when the task of reading in class is made imperative. I now receive positive reactions from my pupils any time they are given a reading assignment, and reading has become more of a pleasure than a burden for them.

Responses to my first questionnaire indicated that 23 pupils read only their subject notes. The table below shows responses to the question: What materials do you read?

Table 1: What causes pupils not to read well?

What pupils read	No. of pupils
Novels	12
Newspaper	5
Only their subject notes	23
Total number of pupils	**40**

Feedback from my colleagues and from the principal highlighted that I did not give the pupils enough time to read by themselves and only focused on pupils at the front of the class.

WHAT I LEARNED

I have learned that getting the perceptions of pupils in the classroom has tremendous relevance in ensuring that learning outcomes are achieved. It would have been impossible for me to solve the reading problem of my pupils if I did not get their opinion. Pupils were able to explain their reservations against my lessons, and I tried as hard as possible to address their comments.

Furthermore, I learned that working in isolation can lead to retrogression in teaching, and I can communicate this to other teachers. Had it not been for the intervention of my colleague teachers, who genuinely observed and presented their candid opinion, the reading problem would have persisted. From now on, I shall continue working with colleague teachers to make my lessons interactive and more interesting.

However, this journey of research work did not start as a pleasant experience; considering the fact that it was a novel experience. I didn't even know where to start. Reconciling this exercise with my teaching activities was a Herculean task. Sometimes, data collection prevented me from attending to other duties.

Like most other ventures in life, this research work has greatly added to my academic experience in diverse ways. I wish to share this experience with other teachers and practitioners in the education sector, so that we can all contribute to giving a facelift to education in Sierra Leone, and to any other people in different parts of the world who are experiencing similar challenges with their pupils or learners.

Alie

GETTING JSS PUPILS TO DEVELOP CONFIDENCE IN SPEAKING ENGLISH

RESEARCHER
ALIE B. MANSARAY

SCHOOL
EVANGELICAL MODEL JSS, MAGBAINGBA

SUBJECT
ENGLISH LANGUAGE

SSO
DOMINIC M. L. CONTEH

DISTRICT
KARENE

BACKGROUND

I am a language arts teacher in my school. I teach from JSS1 – JSS3 in an extremely rural area where the pupils are not exposed to basic social amenities. Most pupils try to participate in my lessons but their contributions are limited to either Krio or Loko which are their native languages.

I was not happy with the trouble that my pupils were having in speaking English language and the effect this on their performance in the subject and other areas.

THE STUDY

To find out the cause of this problem, and solutions to it, is not a job for me alone. I therefore needed to involve my colleague teachers and the pupils by asking them questions and getting feedback from them.

To carry out my research, I developed research questions and tried to answer them one after the other:

1. Why do pupils in my school hardly speak English?

2. Have pupils been doing enough oral practice?

3. What method can I use to develop confidence in my pupils to speak English?

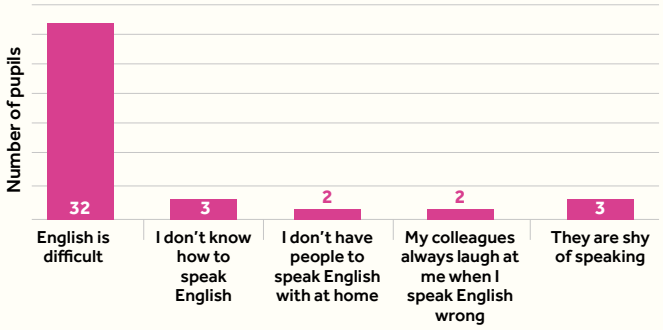
To carry out my study as a researcher, and in order to unearth the problem properly, I first developed questionnaires for both the teachers. I did classroom observation on the achievements and weaknesses in any new method or approach. I also did some interview with the pupils.

In cycle 1, I involved my colleague teachers and the pupils themselves. I asked them the first question "why do pupils hardly speak English?". Some responses came up from teachers and the pupils as shown below:

Factors affecting pupils English speaking according to my colleague teachers

- The pupils don't have the basic knowledge in English from their primary schools
- They have got used to their local languages too much which is making it difficult for them to speak English
- The village system is seriously affecting them, especially because basic social amenities are not available in the village.

Pupils' responses to why they find it difficult to speak English



In cycle 1 I tried to engage my colleague teachers and the pupils through discussion questions and took note of their feedback. The following suggestions came up from teachers in order to remedy the situation:

1. We should be strict in speaking English to the pupils almost all the time in school particularly during lessons

2. We should introduce the black spot system to deter pupils from using languages besides English[1].

1 The "black spot" is a piece of paper with a black spot symbol that is given to a pupil who uses mother tongue in class. If that pupil sees someone else using mother tongue they pass it on. At the end of the lesson the person with the black spot receives a punishment or a fine.

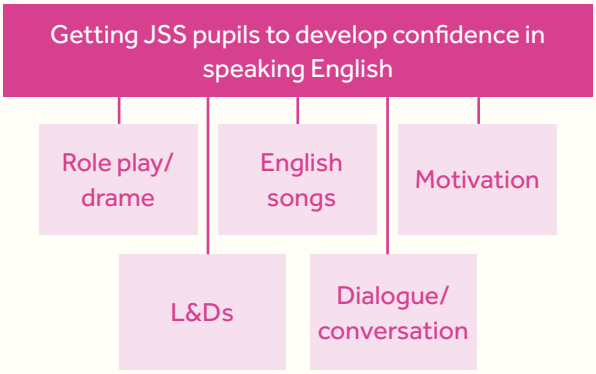
I also did classroom observation to see the progress made based on the approach used. The initiative was good as it limited the vernacular speaking but as an English teacher who needs the involvement of all pupils in the lesson and their improvement in speaking, two main things were observed:

1. Most pupils do not talk for the rest of the day and they do not participate in the lessons.

2. The few bold pupils that manage to speak have some problems with their tenses.

In cycle 2, I realised that change is a slow process, particularly when working with pupils of this nature and in this type of locality. There is the possibility to enhance change but it has to be a continuous process.

From my observation, I found that learning cannot be achieved by force so I have to involve my colleague teachers to help me find alternative methods which pupils will be pleased with and which bring us closer to achieving our proposed goal. I developed a diagram to be discussed, agreed and implemented by teachers for a second trial:



We came up with the following suggested solutions:

- Introduction of Learning and Debating Society(L&DS) at least once a week
- Only English songs to be allowed especially during assembly
- Teachers should implement role play with pupils
- More encouragement should be given to pupils, especially weak learners.

Solution to improve English speaking	Teacher Colleague Feedback		
	Strongly agree	Agree	Disagree
Drama	3	4	1
Learning and Debating Society	8	0	0
English Songs	1	2	5
Motivation	7	1	0

RESULTS

Through observations in cycle 1, I found that if pupils are reprimanded for speaking their familiar language, then most pupils do not talk for the rest of the day and they do not participate in the lessons. The few bold pupils that manage to speak English have some problems with their tenses.

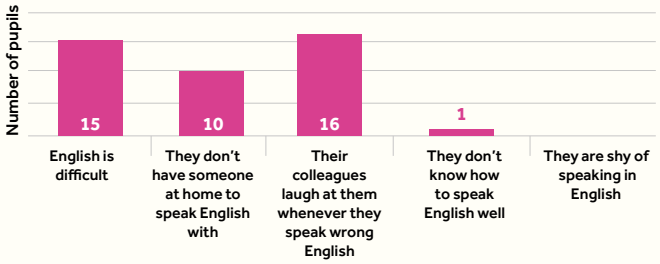
The second method created a friendly classroom atmosphere, and the lessons were also interesting for the pupils. A significant change was observed.

I studied the pupils in JSS II to compare the use of the black spot reprimanding method and the new, motivational method. In a class of 42, 27 preferred the new method to the black spot. It is my observation that the 15 that favoured the use of the black spot were the bold pupils who could speak better than the others while the remaining were the average pupils in class.

Comparison between the cycles

After cycle 2

Solution to improve English speaking	Teacher Colleague Feedback		
	Strongly agree	Agree	Disagree
Drama	3	4	1
Learning and Debating Society	8	0	0
English Songs	1	2	5
Motivation	7	1	0



WHAT I LEARNED

Speaking English cannot be achieved within a twinkle of an eye and it is unrealistic to expect a complete change just overnight because it has to be continuous process. English speaking skills can be developed through carefully selected activities that will actively involve and encourage pupils to be bold and practise speaking English.

Foday

GUIDING PUPILS IN JSS1 TO IDENTIFY AND INTERPRET FIGURES OF SPEECH

RESEARCHER
FODAY M. KAMARA

SCHOOL
MAPOTOLON JSS

SUBJECT
LITERATURE

SSO
KOMRABAI ALUSINE KAMARA

DISTRICT
KAMBIA

BACKGROUND

During the academic year I found out that my pupils could not identify and interpret figures of speech in JSS1. I felt motivated to explore the kind of challenges they have in understanding and interpreting figures of speech. I decided to use varieties of tools like questionnaires, interviews and classroom observation to collect data from pupils and a colleague teacher researcher to find solutions to the problem.

THE STUDY

To start with, I prepared myself by involving pupils and a teacher researcher on the following research questions:

- Did these pupils have previous knowledge of figures of speech?
- Why couldn't they identify and interpret figures of speech?
- How I could I change my teaching style?
- Why is it important to learn figures of speech?
- How I can help my pupils understand figures of speech?

From the feedback of my pupils and colleague teacher I found out that pupils had a lack of basic foundation from their primary school, lack of materials, poor reading habits, fear and shyness in the study of Language Arts.

In cycle 1, I explored and adopted different techniques even though it was difficult to get the feedback. I motivated my pupils to feel free during my lessons and worked to allay their fears. **In cycle 2,** I decided to do another literature lesson where I demonstrated some of the examples on the board to identify and interpret figures of speech from different sentences. It was really difficult with the first phase and pupils were confused in answering some of the interview questions.

I asked myself if it was my explanation and instructions that were not clear and how I could help my pupils better understand my lesson?

I then decided to pair them in groups to share knowledge. I invited a colleague teacher to observe my lessons. From his observations, he recommended that I should teach and explain five figures of speech at a time. He also recommended that giving simple explanations and instructions would help pupils understand more.

I further asked my colleague teacher researcher if it was necessary to have the views of my pupils. Based on the feedback received from colleague teacher, I understood that it was very important that pupils are the main centre of the learning process.

In cycle 3, I interviewed my pupils to know their views and why they are unable to identify and interpret figures of speech. One third of the class responded positively that they can now identify and interpret figures of speech. Half of the class is on the average to understand figures of speech. Some said that my method of teaching is too fast and they asked me to slow down in my teaching.

As a teacher researcher, I decided to apply other methods of teaching and paired the slow learners to help support each other.

RESULTS

Pairing up my pupils helped them understand more about figures of speech. I followed my colleague teacher's observations and noticed some improvement from the learners. Feedback from my pupils indicated that I was too fast and needed to change my teaching approach.

By the end of my research, I understood better about how to guide my pupils to comprehend figures of speech. From observations and responses from my colleagues and pupils, I noticed gradual progression in my pupils' ability to understand, identify and interpret figures of speech.

Responses from pupils (From cycle 2)

	Boys	Girls	Total
Number of pupils that did not understand	5	3	**8**
Number of pupils that fairly understood	12	10	**22**
Number of pupils that well understood	17	13	**30**

WHAT I LEARNED

I thought this study was a simple exercise but then started to realise what it entails. I realised that it is a very difficult study. On the other hand, it is a learning experience and also very interesting because the idea of teacher research is a new thing in our school.

Knowing the real perceptions of my pupils and the observations with the recommendations made by a colleague teacher have added to my understanding of the problems which lead to pupils' inability to identify and interpret figures of speech. I am now in the final stage of knowing the views of my pupils and a colleague teacher researcher. Having known the pupils' views, I tried to introduce the nature and scope of literature in my lessons for better understanding of figures of speech.

Finally, through teamwork with colleague teachers and a colleague teacher researcher including my School Support Officer (SSO), we gained a lot of experience with the training conducted by Leh Wi Lan. I gathered a lot of experience and new skills that change my method of teaching.

Rashid

ENCOURAGING MY PUPILS TO EXPRESS THEMSELVES IN ENGLISH

RESEARCHER
RASHID BAIGEH MANSARAY

SCHOOL
DURAMANI JSS

SUBJECT
EHGLISH

SSO
THOMAS P. KAINDANEH

DISTRICT
BONTHE

BACKGROUND

I live in multilingual society called Bonthe Town in the southern part of the Republic of Sierra Leone wherein my pupils' English speaking is of a low level and they are always happy to communicate in their local languages. I wanted to identify why my pupils do not speak English and find it difficult to express themselves in class. I always observed that those who are incapable of expressing themselves are often disadvantaged and did not participate in class. This became my challenge when I was told to take over the teaching of English in my school.

THE STUDY

In my study, I used different research cycles focusing on the different viewpoints I wanted to understand. I started by collecting data. As a new researcher, it was challenging for me but in the end, I used three tools: classroom observations by colleagues; a reflective diary; and interviews and questionnaires with pupils and my colleagues.

The use of these tools gave me the courage to get a positive result.

In cycle 1 I asked my pupils what languages they spoke, where they spoke them and how often. I also asked my pupils about whether they feared speaking English and why. I also asked my principal and colleagues questions about the languages they spoke, how often they spoke English to pupils and their perception of pupils' dislike of speaking English.

In the second cycle of my research, I put the following measures in place and asked a colleague to observe me:

- Introducing 'black spot' (given to pupil who speaks in mother tongue as a reprimand)
- Introduction to oral English
- Prizes given to deserving pupils in oral English

I formed groups to practice using questions that they then had to discuss as a group. I started with self-introduction, e.g. What are/is your favourite food and what do you like to be in the next ten to fifteen years?

After observing my lessons, my principal informed me that my lessons were not child-centered. Many pupils were not interested in speaking English, so participation was low. In the third cycle, I used more pupil-centered methods.

RESULTS

In my continued research, it became crystal clear that my pupils find it hard to express themselves in English due to a lack of basic foundation from their primary school education (where teachers lack the ability to speak English to them in school). The results from the recently concluded NPSE in the township (results ranging from 4.3% to 76.9%) clearly show that the teaching of English language is challenging.

Pupil responses to my questions

	Mende	Krio	English
Language most frequently used in school	20	15	8
Language most frequently used at home	35	8	102
Language most spoke with friends	30	13	0

	Hardly	Sometimes	Always
How often does your teacher speak to you in English	20	15	8

	Very interesting	Interesting	Not interesting
What do you think of speaking English?	15	22	3

WHAT I LEARNED

As a practising researcher, I have developed the idea of identifying problems and go all out to find solutions to them. I now understand that there is a solution to every problem. This study has helped me to develop my critical thinking and this has given me the courage to change language at home with my family. Before this study, I had really relied on the principal for solutions in the school but now it is the reverse. I have become the reservoir of knowledge in my school. In my teaching, I have learned that I should encourage pair and group work and focus on ensuring my pupils are participating in class activities and are understanding what I teach.

Edwin

SUPPORTING PUPILS WITH ENGLISH GRAMMAR LEARNING

RESEARCHER
EDWIN COMBEY

SCHOOL
ISLAMIC CALL SOCIETY JSS

SUBJECT
LANGUAGE ARTS

SSO
FODAY KAMARA

DISTRICT
BO

BACKGROUND

During my teaching, I noticed that most pupils were not participating in English grammar learning class even when I tried to involve them in the teaching process. Those that did, participated very poorly. This study investigates the current situation of learning grammar in JSS III to understand the poor participation of pupils in English grammar learning.

THE STUDY

During the study, I prepared a questionnaire for my peer teachers and my pupils. They were informed of the purpose of the study and told that there were no wrong or right answers.

Ultimately, 56 questionnaires were administered to pupils and 20 to teachers. I then analysed the data manually.

In addition to the questionnaires, I interviewed a random selection of pupils and I also asked my peer teachers to observe my teaching. Though there were several challenges, I started collecting data based on my research question. The questionnaires were administered to both teachers and pupils.

At the very beginning of this study in cycle 1, I was able to engage colleague teachers and ask them to observe my teaching. At the end of the teaching period, I conducted one-on-one interviews with my colleague teachers and a random selection of pupils.

Based on the results from my study, I started giving them problems to be solved at home so that they have time with their English grammar book outside of lessons. I also changed the way in which I teach my classes.

RESULTS

Table analysis for cycle 1

Items	Options	Proportion
Interest in English grammar	• Very strong	17%
	• Strong	40%
	• Not bad	30%
	• Low	9%
	• Very low	4%
Position of English grammar learning in school	• Very important	58%
	• Important	39%
	• Less important	3%
	• Not important	0%
English grammar practised in classroom	• Vast understanding of grammar knowledge	25%
	• Understanding grammar knowledge	15%
	• Feeling confused about grammar knowledge	40%
	• Not knowing what grammar is at all	20%

Results from the descriptive statistics in the table showed that most pupils cannot consolidate grammar knowledge. Most understood the importance, but the majority highlighted that their accuracy was low. When they spoke or wrote English, they often made grammatical errors unconsciously. They wanted to improve their grammatical competency but just did not know what to learn or how to learn it. Even at home they do not study English compared to other subjects.

Just 17% of pupils had a very strong interest in English grammar and just 25% of those that practised English grammar in classroom had a vast understanding of grammar knowledge.

I kept a reflective journal, and, through self-reflection, I noticed that English grammar is not usually spoken by pupils in class as compared to their first language – despite the fact that it is the most appropriate instrument of communication.

My findings were also informed by classroom observation carried out by colleagues. After colleagues observed me in lessons, they told me that English grammar learning is difficult and that I should not be too harsh with the pupils. From that point I changed my teaching methods.

In the second cycle of my research, I noticed that those that have very strong interest in English grammar had increased to almost half my class and those that were still confused or did not know had decreased.

WHAT I LEARNED

I have learned a lot from this study. It helped me to take a deeper look at every problem. I learned that most pupils participate in classroom activities because of the regular usage of their first and second language at home and even within the communities. When pupils do not spend time speaking or hearing the English language, at home, in their classroom and in the community, it becomes difficult for them to understand and learn it at school.

In encouraging pupils to practise English by giving them role plays to act out, reading poems, and reporting news in assembly, I now find out that pupils speak English frequently instead of their first and second language.

If I have the opportunity to do this study again, I will try to involve community stakeholders in some of my activities. By so doing I think the community would experience changes in the way that the English language is spoken in and outside school.

Emmanuel

THE USE OF INTERACTIVE METHODS TO SUPPORT LANGUAGE LEARNING

RESEARCHER
EMMANUEL MOSSIMA

SCHOOL
ALADURA JSS

SUBJECT
LANGUAGE ARTS

SSO
GEORGE TUCKER

DISTRICT
BO

BACKGROUND

I have been in the classroom for years teaching English Language. Even though I am versatile in this subject and speak English fluently, it is challenging for children to communicate freely in the classroom and within the school premises in English because it is not their first language. It seems that Krio and our other local languages, are more commonly used by school-going pupils when they are learning. Demanding them to communicate in English means depriving most of them of being able to participate while teaching is going on.

This worried me so much that I asked myself: how can I get these children to be fluent in English? I soon realised that it was possible for these children to adopt the English Language. Storytelling, reading dramatization seemed to be a gateway.

THE STUDY

English Language being an official means of communication and teaching all other subjects forced me to get these children to communicate in English. To start with, I used a lesson focused on learning about each other and shared two interesting things about myself. I then instructed the pupils to find out about others: their names, where they lived, about their family, about things they liked and things they do not like.

After this exercise, I decided to get feedback from the pupils about the lesson in their own languages, Mende and Krio. Some of them answered my questions while others couldn't say a single word. One pupil said that English was difficult so it was not possible to respond to questions.

My colleague suggested that motivation and a smiling face would get pupils involved in the learning process.

In another lesson, I introduced dramatisation. This time everyone was involved because I split them into various groups. To make the play lively, I and two colleague teachers demonstrated a short theatrical skit on stage.

In my next lesson, I explained what I expected from them in the English lesson (to respond to questions).

The majority were interested in the lesson, with smiles on their faces. According to them, the clapping, pronunciation, and dancing were enjoyable. The problem was that they found it hard to pronounce the English words because the sounds were so different from their mother tongue. As a result, some children considered speaking English embarrassing because they did not know how to pronounce words correctly. According to my findings, the pupils are hopeful of communicating in English since the classroom is always lively with poems and other activities, and this has made a good classroom atmosphere and teaching and learning relationship.

The exercise worked well because they have accepted the fact that English is the only means of communication in the classroom and can only be spoken well through practice. The dramatisation was challenging at first and few shared their opinions to begin with. However, the second time around feedback from pupils more than doubled.

I used this information to introduce reading exercises in my next lesson. I again split them into reading and interpretation groups and then gave them a reading assignment to be done at home and to showcase their reading ability in class in a later lesson.

By the time I reached the final group I informed my head and colleagues about faults noticed during the dramatisation and from the first set of presenters. Advice from colleagues and my head teacher was to mix bold and shy pupils together to allow everyone to get involved in the exercise. From this presentation I learnt that pupils are willing to learn if the right steps are taken.

RESULTS

Patience is important for achieving goals in a situation like this. This is because most pupils do not have the foundation to work on, and the learning of every pupil in the class is important. Therefore, you should be in the position to involve them all. At the end of my research, I assessed my pupils' interest and confidence in speaking English as follows.

Very Interested and confident	10%
Interested but not confident	40%
Not interesting enough	35%
Not interesting at all	15%

WHAT I LEARNED

English language is not our first language, and pupils do not grow up speaking it if their parents do not.

Teaching itself is a process which cannot be mastered in a day. It takes energy, patience and technical know-how about the pupils' view and perceptions about learning in the classroom. I have gained a lot of experience in this journey. Before this time, I used more of the old teaching method wherein the reader does everything. Now I use more interactive, child-centered teaching techniques where communication flows from teacher to pupils and where pupils talk with me directly. This helped me to get the view of the pupils in the classroom and encouraged participation from pupils in ways that helped them to learn.

A good teacher must explain the lesson objective and its outcome to the pupils, which will help them understand their purpose in school. One is not a reservoir of all knowledge. As a trained and qualified person, you should involve others when faced with difficulties in the learning environment. This will help the teacher to develop themselves and their pupils.

I hope to encourage co-workers to adopt this technique in the classroom. God being my help, I will develop this work in a booklet to help improve the teaching set up in lesson.

BUILDING UP READING SKILLS

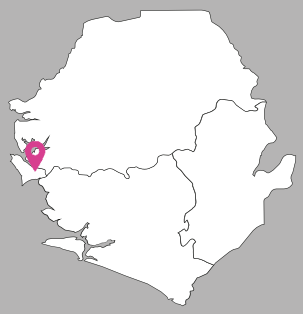
RESEARCHER
ELYN MARTHAR MANSARAY

SCHOOL
MODEL ACADEMY SSS

SUBJECT
ENGLISH LANGUAGE

SSO
MOHAMED SESAY

DISTRICT
WESTERN RURAL



Elyn

BACKGROUND

I was getting frustrated with my pupils in Senior Secondary School (SSS) who found it difficult to read aloud. When asked to read aloud, most of them would just sit in silence and gaze at their books. Those who made an attempt to read had real problems saying the words correctly. As a teacher I wanted to find a way of helping my pupils improve on their reading skills. I then decided to research the challenge: *'Why do pupils in SSS find it difficult to read?'.*

THE STUDY

I took a critical approach to the challenge by using different focuses and perspectives, starting with myself and involving the pupils themselves and a colleague teacher in order to get answers to my questions.

Research questions

RQ 1. Why can't pupils in SSS read?

RQ 2. Why exactly do pupils find it difficult to

pronounce words correctly?

RQ 3. How can I get my pupils to pronounce

words correctly and read better?

In cycle 1, I started doing classroom observations and self-reflections during and after lessons respectively. I took feedback from the pupils, issuing questionnaires to a class sample size of 20 pupils. After that I then decided to look at the situation from a different perspective, by asking one of my colleague teachers to observe my class during a reading session and got feedback from him.

At this point I decided to probe more into this problem. Leading to the next two cycles.

The focus of my study was how to get my pupils to improve on their reading skills - to pronounce words correctly and to comprehend what they read. To carry out the study I made use of questionnaires in which I asked the pupils open and closed ended questions.

Two of such questions were:

1. What is your opinion of reading?

2.What is your problem with reading?

I also engaged the pupils in a teacher-student interactive session. During these sessions I asked several questions to understand what they knew.

At this point I came to realise the root cause of the problem and tried to find a way to intervene. This led to the next cycle. Cycle 3 was done in three stages over a period of 12 weeks. During the course of these 12 weeks I took feedback from the pupils and a colleague teacher.

I then decided to teach basic phonics during my teaching sessions. I also encouraged pupils to read by forming a reading club – I would source reading material which pupils could read at home. After reading they would come to class and explain briefly about it. I also taught basic phonics in three stages:

1. I started the process by teaching the pupils the short vowels and their sounds, the consonants and their sounds, the blending of consonant and vowels. Forming and sounding one vowel words. The correct pronunciation of the sounds 'a' as 'ŭ' when used in a sentence.

2. I moved on to teach the sounds of the long vowels, the rules of vowels, sounding words with two vowels, the addition of the letter "s" to the end of a word which can mean more than one – it can sound as "s" or "z" as in cats and dogs respectively. During these sessions the pupils showed keen interest and were very eager to learn.

3. I taught pupils some of the special sounds of phonics – their rules – for example, when the vowel 'e', o' or 'y' is the only vowel at the end of a short word it usually takes the long sound as in 'go', 'me' and 'fly' and the exceptions to the rule 'to' and 'do'. I also taught about breaking down words into syllables to aid in pronunciation.

At the end of this session, I conducted a reading session in which I invited a colleague teacher to observe my class.

This whole research lasted for 18 weeks. To keep track of my study I wrote a self-journal after every session.

RESULTS

From the data that I gathered, it proved evident that most of my pupils could not read due to the fact that they could not pronounce words correctly. They lacked the knowledge of phonics – associating the letter of the alphabet with their correct sounds. This may have been a problem since foundational classes. Apart from this, pupils also lacked reading habits.

Below is the analysis and interpretation of data:

Pupils said punctuation was their problem with reading	3
Pupils said pronunciation was their problem with reading	12
Pupils said intonation was their problem with reading	2
Pupils said they could not decide what their problem was	3

At the end of each stage of my phonics teaching, my pupils improved slightly and many were becoming interested in the reading sessions.

Feedback from my colleague who observed my phonics teaching in the reading class highlighted that the pupils willingly and actively participated. Pupils' reading ability had improved and they were now enjoying reading.

Having got to this stage where my pupils are now able to pronounce words correctly and read skilfully, I still want them to get to the point where they can read with understanding and appreciation and are able to:

1. Decode the written words

2. Comprehend and appreciate the literature

During the whole course of the research the School Support Officer (SSO) attached to my school gave me tremendous support in the form of advice, overseeing my work and making corrections and suggestions. I also got support from my principal and other teachers as they were willing and ready to give me feedback.

WHAT I LEARNED

At the end of the whole research experience I was able to learn that consulting pupils to find out their views and responding to their needs is a key factor in understanding and solving classroom challenges. Before and at the start of the research pronunciation was a problem for my pupils but, as I made progress in the study, their pronunciation improved. By the end of the process many of them were able to read text, if not fluently, then with much ease.

I also learned that as teachers we have the responsibility and opportunity to give our pupils wings – the wings of liberty that grow from the ability to read. Before the research, and at the early stage of the research, pupils were very tense and afraid when asked to read. You could even sense fear in some of their voices. After I implemented changes to how I taught, they were more relaxed and confident in class. Reading had become a joy rather than a chore.

Having got to this stage where my pupils are now able to pronounce words correctly and read skilfully, I still want them to get to the point where they can read with understanding and appreciation and are able to:

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During the whole course of the research the School Support Officer (SSO) attached to my school gave me tremendous support in the form of advice, overseeing my work and making corrections and suggestions. I also got support from my principal and other teachers as they were willing and ready to give me feedback

Francis

INCREASING JSS1 PUPILS' PARTICIPATION IN MY LANGUAGE ARTS LESSONS

RESEARCHER
FRANCIS Y. MARAH

SCHOOL
KAMARON COMMUNITY JUNIOR SECONDARY SCHOOL

SUBJECT
ENGLISH LANGUAGE

SSO
MUSA Y. TURAY

DISTRICT
KOINADUGU

BACKGROUND

This study focuses on an extremely rural community, Kamaron to be specific, where JSS1 pupils do not actively participate in my language arts lessons. Pupils in this school come from different neighbouring communities with different cultural, social, religious and traditional backgrounds.

I tried very hard to make my JSS1 pupils actively participate in my language arts lessons by explaining the text and vocabularies clearly and asking questions appropriately in the local language for better understanding, but no success. I felt that something must be wrong with my approaches or methods of teachings, or both.

THE STUDY

I started by finding out the cause of pupils' non-participation in the lessons. Finally, I explored their views and effective ways of making them actively participate in the lessons. I asked individual pupils to record their views. I gave them a time limit so that they would finish their work within that time. Some pupils didn't want to give their views at all. I made up my mind and discussed this with my colleague teacher.

My colleague teacher suggested that, if I provided a suitable learning environment using teaching aids such as posters, games, charts, telling stories and having fun teaching, it would be more interesting and interactive for pupils. To achieve this, the teacher should be active in class and observe the activities very carefully.

In cycle 1, I explored pupils' views about effective ways of encouraging active participation and instructed them to record their views on what they liked about my teaching. I gave them a time limit so that they can finish their work within that time. I repeated these steps several times with other lessons in the lesson plan manual (LPM).

After this exercise, I went through their feedback, made necessary amendments to reflect their comments by detailed description of the topics in the LPM. The most noticeable things were that they all took part in the classroom activities. I enjoyed their logical arguments in the classroom teaching and learning. They spoke direct from their local dialect to English, they stay positive and continue improving their language skills. So they became focused on their work.

I realised that I can even teach them through their local dialect so they can then discuss and translate the lesson in English. This makes even the slow learners willing to talk and tell stories in both Kuranko and English.

I planned for **cycle 2** by using some visual aids such posters and charts to describe images, as well as telling stories in the pupils' dialect and translating them in to English. When I completed cycle 2, I noticed a change among pupils. They spoke but make mistakes. I told them this was okay which gave them confidence to talk about anything in and outside the classroom. Sometimes I discussed with them and helped them to pronounce difficult words. I encouraged them, explaining the importance of learning English and sharing the lesson objectives which I clearly stated on the chalkboard. I repeated these steps in other lessons which made the learning process interesting to them.

Based on the feedback I have received so far, I used my reflective journal to plan actions for the future, for example, presenting parts of speech using Krio and Kuranko meanings, mentioning objectives of the class and asking pupils very carefully about their learning.

Before going to cycle 3, I discussed the notes which I had taken in cycle 1 and 2 with my peer teacher. His suggestion was to take the class using simple language, discuss the topic very clearly and discuss the main objectives of the lesson using our local language for better understanding.

In cycle 3, I briefly introduced the way in which I wanted to them to give honest and considered views on the English class in both written and oral exercises and answer questions like: What is most difficult? What else would you like me to do?

RESULTS

At first, my pupils thought English language was the most difficult subject and that it was not possible for them to learn at all. I tried to overcome their negative thoughts. Now they not only express their views, but also give me suggestions which I implement in the class.

I am amazed to see even the slow learners give me valuable suggestions. When they realised that I appreciate their opinions, they were very happy and optimistic about their learning. Most of them like to be asked about their opinions. I never thought of this before, but they want to express their views and I should create a platform for their initiatives.

When I analyzed the data from cycle 1, I could see gradual improvement from 10% to 20%. The improvement was not close enough to my target in cycle 1. I noticed changes amongst the pupils during cycle 2, this amazing ability and willingness to give their own views improved from 20% to 45%. In cycle 3, there was a massive improvement again, from 45% to 90%.

Out of 48 pupils, 42 pupils said that presentations in their mother tongue (Kurako) gave them better understanding

Out of 48 pupils, 30 said that they liked the class that day and 42 pupils said that presentations in their mother tongue (Kurako) gave them better understanding, showing pictures, miming etc.

Out of 48 pupils, 25 of them said they had learned how to talk with other people in English.

Two pupils said grammar was the most difficult part. Four said vocabulary was not really easy. 33 pupils said they practised four skills. 25 of them said they had learned how to talk with other people in English. Generally, they liked my work, such as miming, telling stories and asking questions using body language.

In this way I was able to manage even the slow learners. Now they take part in the classroom activities and they express their opinions without any fear. I try my best to take the class according to their opinions. I have learned that pupils are ready to learn if only they are given enough space to grow.

Having got to this stage where my pupils are now able to pronounce words correctly and read skilfully, I still want them to get to the point where they can read with understanding and appreciation and are able to:

1. Decode the written words

2. Comprehend and appreciate the literature

During the whole course of the research the School Support Officer (SSO) attached to my school gave me tremendous support in the form of advice, overseeing my work and making corrections and suggestions. I also got support from my principal and other teachers as they were willing and ready to give me feedback.

WHAT I LEARNED

I have learned that pupils' views/opinions are equally important in an effective teaching and learning process because they are at the centre of the learning process. If we know the views of the pupils and provide the suitable learning environment, using appropriate teaching aids, it will be more interesting, interactive and participatory for pupils.

When we clearly identify the objectives of the lesson and share it with pupils, it is much easier for them. By thinking through this process, the teacher will develop themselves because they will know pupils' learning needs. It also helps the teacher to identify classroom challenges through continuous stock taking of pupils' progress in the teaching and learning process. It also eradicates blame games from the teachers, learners, parents and the learning environment.

Lastly, learning by speaking your local dialect to help interpret English will help you to be more fluent in English and will bring everyone on board to make the lesson more inclusive.

Before conducting the study, I thought that research was a very complex and difficult thing but I always knew that nothing was impossible in this world. That's how I accepted this research journey. The teaching/learning process is a long one.

GROUP WORK

GROUP WORK

The benefits of organising learners into pairs and groups are widely known as effective in motivating pupils, encouraging active learning, and developing key critical-thinking, communication, and decision making skills. Through participation in group work, pupils learn from and with one another, clarifying and consolidating their thoughts and generating ideas. Group work is of special benefit as a means of including pupils who may be reluctant to speak and contribute in front of the class.

Appreciating the value of group work

In Sierra Leone, the use of group work is promoted through the school support system. For many teachers, using group work is a teaching strategy on which they have received training and received feedback during lesson observations. The extent to which the teacher 'pairs and groups children in different ways during the lesson' is one of the criteria Leh Wi Lan School Support Officers score in their lesson observations to incentivise learner-centered, inclusive teaching methods.

Lesson observation data from 2019/2020 shows that grouping is used in most classrooms. However, as a teaching method it does not score as well as other pedagogy criteria that are also measured, such as the use of positive language, inclusion, and providing the pupil with feedback. This suggests that teachers may not be using grouping effectively. Whilst the use of group work is not a new concept in Sierra Leone, it is interesting to note that teachers commonly identified it as a topic for further research and exploration. Teachers clearly see value in group work and are keen to explore how to use it more effectively as part of the teaching and learning process.

Understanding how to use group work more effectively

Most teacher research studies that focused on group work sought to identify the challenges it presents as a teaching technique and how to develop more effective approaches to its application in the classroom.

Teachers identified several reasons to improve group work in lessons including: supporting peer learning, enabling all pupils to participate actively in learning, delivering more inclusive teaching and learning, encouraging pupils to discuss learning in English, for 'faster' learners to support 'weaker' learners, and to create a less threatening environment so that quieter pupils would feel more confident to discuss their learning.

The principal challenge observed was that of pupil participation. Not all learners participate in group work and, often, this meant that pupils were sitting silently doing nothing. This suggests that the issue is with engagement in the group work activity itself.

On exploring the reasons for low participation, teachers found that pupils did not understand content, groups were sometimes too large to ensure everyone participated, and 'fast' learners would sometimes take the lead with 'slower' learners unable to keep up. Other barriers to participation included fear of incorrect answers, of being laughed at, language barriers, gender barriers, inadequate time for group activities, and no monitoring, support, or motivation.

Solutions to improve group work

A key finding that emerged from the research studies was that classroom layout and seating positions can impact on learning. Creating a layout in which pupils can work together and the teacher can walk around and reach and support all groups aids learning. Whilst this is challenging in overcrowded classrooms, teachers reflected that the learning environment is important, not just the teaching methodology.

All teachers, however, identified and practised different teaching styles and methodologies to improve group work, and found that these techniques yield positive results. In most cases, the value of preparation and planning was a critical factor in ensuring inclusive and productive group work. In terms of group composition, assigning different roles within groups was identified as valuable, as was considering the balance of gender and ability.

Teachers also found that preparation played an important role. Providing clear instructions and explanation in advance in a language that pupils understand and covering the topic in advance of the group work were shown to be strategies that kept more pupils engaged. Teachers were also able to maintain interest levels with the use motivational techniques such as praise, competition, and incorporating topics of interest to learners, as well as regularly checking and supporting progress.

To be able to include those pupils finding topics and group work difficult, teachers sought to talk to those who did not participate to know their perceptions. In some cases, teachers had to acknowledge that some pupils prefer working on their own so group work should not replace individual work but complement individual and pair work.

Taken together, research studies into group work appreciated the value of the activity in delivering inclusive, learner-centered teaching but, importantly, recognised that simply using group work without thought to how it was applied was not sufficient. The research studies clearly showed that planning, group management and encouragement all had to be applied within group work settings, to varying degrees and to support different pupils' needs, to ensure they were productive and meaningful learning experiences.

> “I also learned that there are slow and shy learners in any class or group but that these pupils can do well when they are grouped with average and fast learners. This also helped me to manage fast learners who tend to dominate the lessons most of the time.”
>
> **Aruna Sigismond Kamara** (Teacher in Port Loko)

Patrick

PARTICIPATION OF PUPILS IN GROUP WORK

RESEARCHER
PATRICK PAUL PUNGA

SCHOOL
F.A.V.S.S GANDONHUN

SUBJECT
LANGUAGE ARTS

SSO
ABDHULRAMAN FOFARAH

DISTRICT
MOYAMBA

BACKGROUND

The idea of most pupils not participating in group work in my class had been a big challenge to me. I was not happy with the way I did my group work because I noticed that many pupils did not participate in the activity I set up. This has led to the poor performance of most pupils, especially at promotional and public examinations. Teachers had continuously explained that they had done their best to teach and bring glory to the school but to no avail.

Reliable sources had revealed that the majority of these pupils did not participate in group work but I think that group work is an important activity for learning. I always imagine that teaching and learning processes are completely connected with teacher-pupil and pupil-pupil relationships. In view of this, I thought it necessary to investigate why pupils did not participate in group work and the effects of not participating so that I could take necessary and timely actions that would help the pupils in their learning.

THE STUDY

As a form teacher and subject master of English language facing with this problem, I wanted to understand why there was low participation in group work.

I began to collect information from various areas. I involved my colleague teachers, my principal, and my pupils to get their views. In cycle 1, I started collecting data based on my research questions:

- Do pupils like the subject?
- Are my instructions clear?
- Are the groups balanced between girls and boys and smart and slow learners?

I decided to use the questionnaire and interview methods as the tools of my study.

At first, I prepared myself and chose a lesson on reading comprehension from the lesson plan manual. The lesson was for 40 pupils in total (25 boys and 15 girls). I wrote some questions about the passage they had to read on the chalk board and asked my pupils to go into groups and answer them. I did all this in the presence of a colleague teacher who was observing my teaching, focussing on pupils' participation.

A quarter of the class got all the questions I set on the passage correct and more than half of the pupils got between 20 and 70% of the questions correct. After the exercise, I administered the questionnaires to the pupils to indicate agree or disagree to a set of questions (see the table of responses, in the results below). Feedback from pupils during cycle 1 showed that more than half of the class liked the lesson and liked the subject but they said the instructions were not clear and I did not pay attention to them.

I tried to make my lessons more interesting through use of role play, warming up activities and more instructional materials on the lessons that could encourage my pupils to love the subject. I also made my instructions clearer and encouraged slow learners to participate by asking the fast learners to give them chance to participate. I also paid more attention to all the groups and monitored them well.

When I completed cycle 2, I noticed change among my pupils. I asked my pupils to ask me questions about the passage. I asked one to read the first paragraph while others listened attentively. The group that read had to explain the paragraph and the listening group had to ask the reading group questions. This happened in turn until the whole passage was completed.

Before going to cycle 3, I prepared another language lesson on parts of speech and asked another teacher to observe my teaching. I gave her a check list of what to observe, including clear instructions, pupil involvement and appropriate materials and monitoring for group work. I also carried out self-rating based on my reflections.

Self-reflection	Self-rating
How much did I use the new methods?	Good
How well did I use these methods?	Good
How much did pupils enjoy these parts of the lesson?	Very good
How well did I get all the pupils to join with activities?	Very good
How good was my sense of humour in class?	Very good
How well did the pupils learn the language skills?	Very good
How well did I distribute my questions?	Good
How effective was my monitoring in group work?	Good

I repeated these steps with other lessons in the textbook. This time, I described all the details of the topic. The most interesting thing was that they all took part in the classroom activities. In this way, I was able to manage even the slow learners.

RESULTS

Questionnaire for pupils after the lesson in cycle 1

Question	Agree	Disagree
The lesson was interesting	25	15
I like English Language	25	15
I like to work alone	30	10
The instruction was not clear	25	15
Our colleagues did not allow us to participate	20	20
I like to work in pairs	25	15
Teacher pays less attention to us	25	15

Most pupils liked to work alone because they thought group work was an additional burden on them and some slow learners did not participate because they were bullied by fast learners. More than half said they liked English, however, more than half also noted that I needed to pay more attention to them and that the instructions were not clear.

Based on the classroom observation check list responses from another teacher in the school, I realised that there had been much improvement.

When I analysed the data, I did see marked improvement. At the start of the research only one in ten participated often in class, but by the end of cycle 3 it was almost all my pupils (about nine in every ten). At the beginning, they thought that group work was a difficult task and it was possible for them to learn. Now they not only expressed their views, they also give me suggestions. I was surprised to see even the slow learners giving me valuable suggestions. When they noticed that their needs were catered for and that I appreciated their opinions, they were very happy. Most of them liked to be asked for their opinions. I had never thought of this before. They want to learn, they want to express their views.

WHAT I LEARNED

Before conducting this research, I thought that it was going to be a very difficult task. It was challenging, but nothing is impossible. I felt encouraged to find my introverted pupils now playing a prominent role in group work compared to previous occasions. Now, more of my pupils take part in classroom activities and express their opinions without fear. I learned that pupils were ready to learn but I was not giving them enough encouragement and space to grow. Now my learning objectives are well-defined and I give clear instructions. I have a good relationship with my pupils and know that understanding a child's background information is useful, as it may affect them either positively or negatively.

This undertaking has really taught me to talk with my colleagues, principal, pupils and community people on challenging issues to help me understand why things were not working well. I can sit and plan before any class. I will reflect on what I have accomplished. Should there be any scope for improvement, I will easily share it. I will make use of my reflective diary every day.

Ibrahim

PERFORMANCE OF PUPILS IN ENGLISH LESSONS IN MY CLASS

RESEARCHER
IBRAHIM SONGA

SCHOOL
ST. STEVENS TECHNICAL AND VOCATIONAL SS, GOBARU

SUBJECT
LANGUAGE ARTS

SSO
AMARA BRIMA

DISTRICT
PUJEHUN

BACKGROUND

As a Teacher of English language, I was unhappy with the output of my pupils in English lessons. I wanted to learn the reason(s) why my pupils were not doing well in English Language as a subject in my class.

THE STUDY

I used a reflective diary, classroom observation by my colleague teachers and oral interview with pupils as data collection tools for this study in order to understand the reasons for my pupils' poor performance in English as a subject.

During classroom observation by colleagues, it was discovered that most of the pupils were not involved in the learning activities such as group work and peer work because movement in the class to monitor the pupils was impossible due to the disorganised seating positions and overcrowded class.

I interviewed 20 pupils during each cycle of my research.

In cycle 1, 20 pupils from the overcrowded class were interviewed so I could find out their level of understanding of the lessons taught previously. The 20 pupils were sample representatives of the whole class.

In cycle 2, I re-arranged some seating to allow some monitoring of the pupils' work and group work. I then interviewed another 20 pupils to ascertain their level of understanding from the overcrowded class.

In cycle 3, I was able to move freely and perform constant monitoring of the class because the classroom had been properly arranged. Another batch of 20 pupils were interviewed as representatives of the whole class.

RESULTS

Despite good preparation and delivery of lessons, a crowded classroom leads to a lack of proper monitoring of pupils' participation in the learning process and this can hamper performance.

The classroom observation by colleague teachers showed that, in the large-size class, only a small number of pupils (around 30%) participated in the learning process whether it was group work, peer work or individual work. However, in a small-size class, many more pupils (around 70%) participated in the learning process and this enhanced their performance.

In the oral one-to-one interviews, pupils were asked questions about what they had been taught in order determine how much they had understood.

Feedback from sample of 20 student interviews each cycle showed there was improvement in pupils' understanding. See the table below.

Cycle 1	Perceptions of pupils on lessons taught	Number of pupils
	Understood the lessons previously thought	8
	Understood but needed help in some areas	5
	Found it difficult to understand at all	7
Cycle 2	**Perceptions of pupils on lessons taught**	**Number of pupils**
	Understood the lessons taught previously	12
	Understood the lessons but needed some help in some areas	4
	Found the lessons difficult to understand	4
Cycle 3	**Perceptions of pupils on lessons taught**	**Number of pupils**
	Understood the previously taught lessons	14
	Understood the previous lessons but some help needed	3
	Found it hard to understand the lessons taught	3

WHAT I LEARNED

This research has changed my mindset about finding the causes of negative attitudes or performances of pupils. It cannot just be based on one factor and even the learning environment can impact on learning negatively. I learned that poor seating accommodation and lack of participation leads to poor performance in English lessons.

I also learned that collaboration among teachers in the same subject is good. I could not have completed this study without the contributions of my colleague teachers. As a result of this research, I have developed as a research minded person to find answers to problems without being judgmental.

Zainab

ENHANCING PUPILS' PARTICIPATION IN GROUP WORK

RESEARCHER
ZAINAB KARIM SESAY

SCHOOL
ANSARUL ISLAMIC JUNIOR BOYS SECONDARY SCHOOL

SUBJECT
LANGUAGE ARTS

SSO
HANNAH THOMAS

DISTRICT
KONO

BACKGROUND

I teach language arts at the Junior Secondary School (JSS1). I am fond of monitoring the progress of my pupils in class and I noticed that most of my pupils did not participate in group work assigned to them during lessons. It became a serious concern to me. I therefore engaged colleague teachers, my pupils and some authorities to help me identify the reasons for my pupils' low interest in group work and to find the remedy to the problem, as I believed that it would help them greatly in their academic work.

THE STUDY

I drew some critical questions to enable me to arrive at the causes of the problem. The research questions were:

1. Why is it that some of my pupils do not participate in group work?

2. How can I help them to participate in my lessons?

3. What do my pupils think about participating in group work?

I involved colleagues to help observe my lessons.

I administered some "yes or no" questions to some 50 pupils, and their responses were recorded.

An interview on possible reasons for pupils' low interest levels was conducted with the principal of my school. Some parents who regularly monitor the activities of the pupils were also interviewed to help me know the level at which children interact with others at home.

In cycle 1, I decided to group my pupils since some pupils would get no work done if they were left to work alone.

In cycle 2, pupil grouping was done on the basis of fast learners mixed with slow learners so as to facilitate appraisal among pupils. Pupils were also given the opportunity to share knowledge with their classmates.

In cycle 3, slow learners became more involved in the class group activities so there was much more participation. It also helped them to be bold and to take ownership of their learning outcomes.

Questionnaires were prepared and distributed among 50 pupils in the class.

RESULTS

Out of the 50 pupils, more than half indicated that they liked group work (36 out of 50). 32 out of 50 said other teachers asked them to take part in group work. But only 12 out of 50 said they had ever participated in group work.

Feedback from a colleague teacher said that he observed some of my pupils would not have chance to participate because of the large class size. He said that the time allocated to the subject was another challenge and that he noticed that some pupils did not participate because they did not understand the activities and they were not comfortable with the group work.

Feedback from the principal for further observation of my lessons showed how he saw the lack of interest in my group work activities because there was no motivation. In my own observations, I noticed that when I started appraisal of pupils by saying "Excellent! Good work done", I later noticed a positive reaction from my pupils. The principal also observed that the pupils failed to take their language arts handbook to class during lessons. So, most of them did participate in group exercise because the group exercises are drawn from the pupils' handbook.

WHAT I LEARNED

During my research study, I was able to discover some of my pupils' reasons for not participating strongly in my lessons. Mixed ability grouping of pupils has proved to be an effective instrument to enable active participation of my pupils. When monitored effectively, it enables slow learners to learn from their peer groups, including the slow/shy ones. The research brought to my notice that I have been making mistakes in the classroom by not using the appropriate methods to teach a particular topic or lesson. I now realise that there is no difficult topic, just a wrong method of teaching.

I learned that collaboration with colleagues can help to produce positive outcomes. I was helped by colleague teachers to achieve the results of this research. I was able to get the best out of my colleagues and pupils because of my relationship with them. Being friendly with colleagues and pupils helps produce positive results.

When pupils are involved in the process, they become interested. I learned that pupils actively participated in the learning process and they were able to progress more effectively.

Above all, I learned that research work should be a priority for any classroom teacher because it enhances efficiency in the classroom and even outside the classroom. A lot of mistakes are made by teachers in the classroom during lessons. It is only classroom research that can correct them. Research needs time, patience and finance.

Hawa

ENHANCING SOME OF MY PUPILS' CONCENTRATION LEVEL ESPECIALLY AFTER LUNCH

RESEARCHER
HAWA MORSAY

SCHOOL
ANSARUL ISLAMIC GIRLS JSS

SUBJECT
LANGUAGE ARTS

SSO
HANNAH THOMAS

DISTRICT
KONO

BACKGROUND

Prior to this study, I realised that some of my pupils in the Junior Secondary School 3 pay less attention to my English lessons, especially after lunch break. I considered this to be a problem and wanted to enhance concentration and lesson outcomes in my English lessons after lunch.

I decided to investigate the reasons for this problem.

THE STUDY

To figure out how to enhance the concentration level of my pupils during lessons I engaged the principal and colleague teachers because I wanted to know if the problem also happens in their lessons.

They advised me that this does not happen in their lessons and that I should involve the pupils themselves in finding out the reasons for their lack of concentration during my lessons. I asked myself: 'How can I enhance some of my pupils' concentration especially after lunch break lessons'

In cycle 1, I recorded incidences of pupils sleeping and distracting others in a diary for my self-reflection. Later, I asked my colleague to observe my lesson and give me feedback regarding the lack of concentration of my pupils.

The feedback from my colleague indicated that my teaching method was less inclusive which caused pupils to engage in distracting behaviour during class. They also said I paid more attention to the clever and intelligent pupils, and less attention to the weak ones during lessons. I realised that this approach may have caused pupils to feel not relevant in class, hence giving them the opportunity to sleep during my lessons.

I asked the principal to observe my lesson and give me constructive feedback on the lack of concentration of my pupils. After the observation, he said that my classroom was not interactive due use of the 'chalk and talk' method and suggested that we move all afternoon lessons to the morning.

I developed an open-ended questionnaire for focus group discussion with the pupils to understand why they did not concentrate during my lessons.

In their responses, some of them said that I spoke complicated English, lacked motivational skills or gave my explanations too quickly. They also said they were shy and afraid of asking questions due to my frequent use of corporal punishment.

My self-reflection and personal observation records are similar to the feedback I received and showed that I was not planning the lesson according to pupils' needs, I concentrated on learners that find my lessons interesting, and I was sometimes unable to make pupils understand my instructions during guided practices. I decided to address the problems with new teaching techniques that could enhance most pupils' concentration in my English lessons.

In cycle 2, I worked on the feedback I had received to design activities that could enhance the active concentration of most pupils during my lessons. I was able to adjust the teaching timetable from afternoon to morning. I started marking exercises for pupils, and practised inclusiveness during lessons by mixing up weaker pupils with the clever ones in group activities. I asked pupils about the effect of the lack of inclusivity in my lessons on their concentration in class.

Based on the responses, it was clear that teachers should make their lessons inclusive in order to gain total attention of their pupils and make the lesson interactive and not boring.

Therefore, in cycle 3 I started practising motivational skills, for example by giving appraisal (clapping for pupils), spelling drills and conversational activities among pupils, all of which made the lessons interactive and interesting.

RESULTS

Colleagues' observations and personal reflections showed that my lessons were not interactive due to use of the 'chalk and talk' method and most pupils were disengaged. I realised that this may have caused some pupils to feel disengaged in class, hence giving them the opportunity to sleep during my lessons.

Pupils' responses in cycle 2: Lack of inclusiveness in classroom during lessons can lead to sleep, distraction and less concentration	
Strongly agree	10
Agree	16
Disagree	3
Strongly disagree	1

From the data collected from pupils in the lesson, I realised that out of the 30 respondents in the targeted class, 20 said English was difficult, 8 said they did not like English, 30 stated that my explanation was too fast, and I do not check that they have understood; and 20 were not comfortable with the jargon I used during the lessons. This data shows that my teaching methods have been the cause of the lack of concentration of some pupils in my lesson.

Moreover, 26 pupils out of thirty affirmed that the teacher's lack of inclusiveness in the lesson can cause pupils to sleep, distract others and less concentration.

After applying group work and motivational skills in my lessons, pupils' response and personal observation data revealed that my lessons were more productive. Pupils were actively participating in the lesson by asking questions when task instructions were unclear. No one slept any longer; everyone wanted to lead group presentations and class exercises were done on time.

WHAT I LEARNED

This research study has helped me in various ways to solve problems in my classroom. Specifically, I was able to learn that involving others in problem solving can help find solutions easily. In this case, the observations and views of others helped me to improve on my method of teaching which in turn enhanced my pupils' concentration during my lessons. For example, creating energisers for pupils immediately after lunch break helped me to gain the attention of my pupils.

I also learned that involving the pupils themselves in the lessons motivated them, captured their attention, and helped sustain it throughout the lesson. In this way, using the Child-Centered Teaching Technique (CCTT), I succeeded in raising the level of concentration of the pupils and encouraged them participate actively during my lessons.

Finally, from data collected on close ended questions in focus group discussions I learned that mixing up pupils with different abilities can improve levels of learning and concentration for many. In this regard, the slow learners were able to learn better when I grouped them together in learning activities.

With the help of others, I was able to get possible solutions to problems I investigated in my study. Hence collaboration with other teachers and pupils can proffer solution to the lack of concentration of pupils in lessons. Furthermore, appreciating pupils' contributions in a lesson by using positive language can motivate most of them to concentrate in the lesson.

Brima

WHY DO ONLY SOME PUPILS LIKE TO WORK IN GROUPS BUT NOT OTHERS?

RESEARCHER
BRIMA KOJOE BAIMBA

SCHOOL
SAINT PETER'S SECONDARY SCHOOL – DARU

SUBJECT
LANGUAGE ARTS

SSO
BATTU SHERIFF

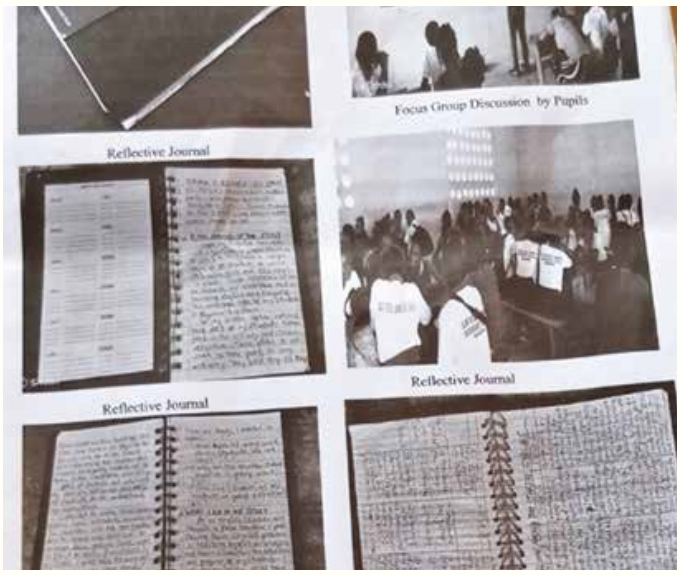
DISTRICT
KAILAHUN

BACKGROUND

I am a former master of JSS2 Blue and I have a large class of 70 pupils. I have huge responsibilities to observe the behaviour and progress of my pupils and teaching English as a subject and enforcing discipline for a hopeful tomorrow.

In my lessons, I often notice that the same brilliant pupils, about 25 of the total number of my class, will always take part in the activities and remain attentive. Some others do not want to take part at all in any activity, while some will try to keep themselves at the back where they will remain as "objects to be seen, not to be heard" until the end of the lesson.

I didn't blame anybody, but reflected on some questions about my own behaviour and tried to answer questions about discipline and inclusion for my research. I thought of forming some small groups in my lesson.



THE STUDY

As a form master and likewise a teacher researcher in my school, I was facing some crucial problems in teaching English as a subject and increasing student participation and inclusion in classroom activities. I thought of group work activities to solve problems. Some questions came up:

- What type of group work do my pupils like most and why?
- Why are the weaker pupils not active in group work activities?
- How can I involve all of them in group work activities?

In cycle 1, I tried to introduce group work activities in my lesson to help solve problems. I discussed the issue with my school head and with some colleagues and suggested ways to involve all of the pupils in the lesson. I made seven groups of 10 pupils each and gave them all my instructions together without identifying roles for any group members.

I then observed the pupils doing the task and did not invite any colleague to observe them. At this stage the classroom was not too spacious for group activities and I found it difficult to observe them.

In cycle 2, I maintained group work and the interchanged sitting position. I made 10 groups of seven pupils each and identified roles for group members. I then invited a colleague to observe my lesson. I gave my instructions in English and increased time for the group activity.

In cycle 3, based on colleague's feedback, I made 14 groups of five pupils each by mixing all categories of learners in each group and used their common language (Krio) to give my instructions. I assigned roles to my pupils to enhance effective participation during group work. I invited another colleague to observe the lesson. I also increased activity time and gave praises to motivate my learners.

I also made several groupings and prepared flash cards to have pupils' responses. I asked them to give reasons why they do not like group work on their flash cards which I collected and analysed. I reflected on my own behaviour and set up focus discussion as part of my lesson's activities.

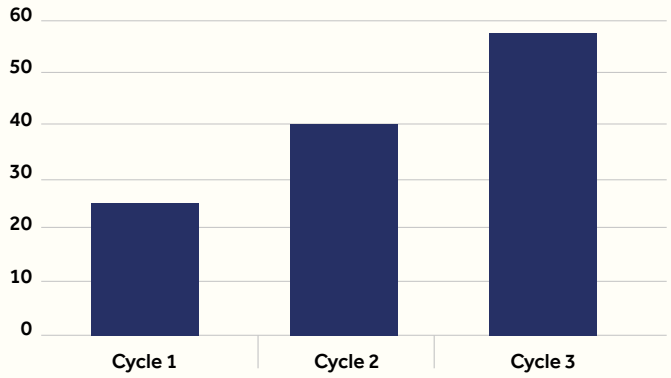
I talked to some weaker pupils who were not actively involved in the activities to understand their own perceptions about the learning method. I wanted to know what they like most; whether they had understood my instructions, and how they liked the group size, the time per group work and the size of the classroom. I also wanted to know if they were comfortable during the group work and find solutions to some problems arising from the classroom environment.

RESULTS

Findings collected from colleagues stated that groups consisting of advanced pupils were very active in the activities but groups consisting of weaker pupils were not actively involved in the lesson. Feedback also showed that there was fear and hesitation in pupils and that pupils are not well exposed to English language outside the classroom activities and low interest for group activities.

After introducing new approaches at each stage of my research, I found there was an improvement in pupils' participation from cycle 1 to cycle 3.

Number of pupils participating in group work



I realised from my pupils' responses on flash cards that some of them were not well exposed to English language and feel shy when they are asked to speak in public, but the highest number of responses indicated that they were not interested in group activities because there was no encouragement and motivation from the teacher.

Responses from pupils' flash cards	No. of pupils
My classmates will laugh at me when I speak wrongly	10
Group work not interesting	2
I am afraid of speaking in class	8
I feel shy to speak English in public	10
I do not like to be embarrassed by my teacher's questions	5
I am not motivated to contribute in class	12

WHAT I LEARNED

During my research journey, I realised that most teachers failed in the past due to their lack of understanding of the essence of group work in helping pupils' learning. The results of this work prove that maximum participation of pupils in groups will facilitate better learning outcomes.

From my study, I have learned that teamwork and understanding student perceptions will help break barriers and make work easier. I also learnt that if all categories of learners are mixed in a single group, the fast learners can help average and slow learners improve in their participation. I also learned that participation of pupils in smaller groups seems to be more effective than those in larger groups. It is also easier to monitor and control noise levels and ensure attentiveness.

Changing seating positions and assigning roles and responsibilities to pupils makes the group work participatory.

Francis

MAKING MY ENGLISH LESSON INCLUSIVE FOR MY LEARNERS

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SCHOOL
METHODIST SECONDARY SCHOOL, KAILAHUN

SUBJECT
LANGUAGE ARTS

SSO
EMMANUEL S. JAMES

DISTRICT
KAILAHUN

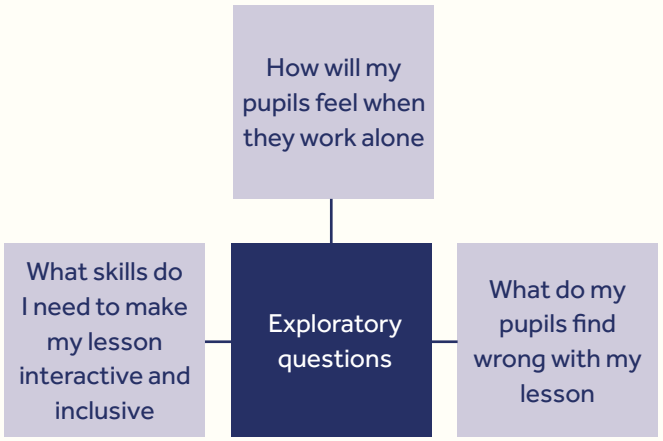
BACKGROUND

I have always tried to make my lessons very interactive and encourage high participation of my pupils in my English class. I realised that the majority of my learners were uncomfortable with my approach in the teaching and learning process. Most of my learners were left behind and I tried to seek their views about how they learn. Their concerns were looked into throughout this journey.

THE STUDY

I had to acknowledge ideas from my Principal, colleague teachers, as well as the pupils themselves, having realised that only a handful of learners were actively involved and participatory because they were uncomfortable with my approach in my learning process.

With this, I tried to find out how to really explore my faults and the children themselves. I decided to use a questionnaire and asked colleague teachers to observe my lessons to provide answer the following research questions.



I did my research in three cycles. **In cycle 1,** I observed my pupils in one of my lessons and recorded my findings in my diary. On my daily reflection, I realised that most of my pupils were always working alone.

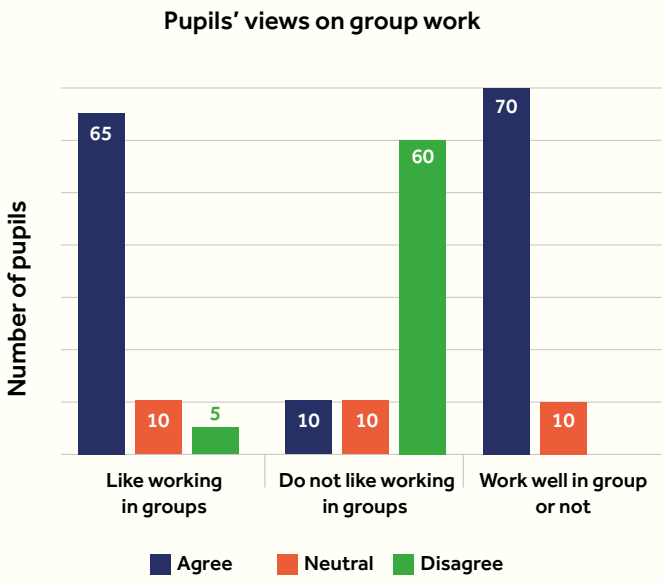
In cycle 2, I wanted to know why my pupils like working alone. I designed a questionnaire to test the new method of group work I had introduced and I looked carefully at their views. I also introduced group work into the classroom to address the problem of pupils working alone, splitting them into groups of four and giving them responsibilities.

In cycle 3, I asked my colleague teacher to observe me and my learners in group work and give suggestions on how to improve my engagement with my pupils. I asked my colleague teacher to observe three things: the manner in which questions were given as to whether every pupil was involved or given questions to answer; my responses to their answers; and finally, my presentation of materials to the pupils.

I critically looked at their comments and recommendations which was of great help throughout this journey.

RESULTS

In cycle 1, I noticed that all of my pupils were isolated and that learning became boring because nobody was there to assist them when they were challenged. I tried to understand "how do they feel when they work alone or in isolation?". Their responses gave me an idea of why they are not learning. Some said they feel happier and like working alone. Others said that they do not work well when they work alone. Some remained neutral and said they didn't know. When their views were actually computed, I realised that more than four fifths of them liked group work.



After introducing changes in cycle 2, I realised that working in groups meant that the majority were now participating in the learning process.

WHAT I LEARNED

The study that I have gone through has opened my eyes and widely broadens my knowledge. The study reveals the needs of pupils in our everyday interaction. From my research, I realised that my actions have kept my learners in isolation as I only concentrated on brighter learners. This was a problem. I also learned from my activities that it is easier to handle and manage learners in small groups.

Catering for all categories of learners should be paramount, from this I learned that when all learners are catered for, learning will be accelerated and this will lead to success.

With the support, directives and clarifications from colleagues, pupils, I gained some grounds/momentum that enabled me to understand that group work is an inclusive approach to enhancing effective class participation.

Paul

IMPROVING PUPILS' PARTICIPATION IN GROUP WORK

RESEARCHER
PAUL MORISON

SCHOOL
HOLY GHOST JUNIOR SECONDARY SCHOOL

SUBJECT
LANGUAGE ARTS

SSO
BATTU SHERIFF

DISTRICT
KAILAHUN

BACKGROUND

I am the language art teacher for Junior Secondary school (JSS) 1x. and I realised that most of my pupils are not serious about group work and hence do not participate in any group activity.

I wanted total involvement of the class in a given task and to use an appropriate method to engage them in group work since I believe that children can learn faster from their peers when they share ideas.

I later realised that more than half of my pupils could not fully participate in a group task. It would never be possible to achieve the desired outcomes, if this large proportion of pupils could not partake in the task so it became necessary for me to stimulate them so that they can become serious in group work.

THE STUDY

I developed two research questions:

- Why are my pupils not participating fully in group work?
- What teaching method can I adopt to enhance their full participation?

I used the views of the children and some conversations with colleague teachers to identify the reason for my pupils' poor participation in group activities.

I tried to look for an appropriate teaching method that could help them become familiar with a particular topic before they actively participated in group tasks.

I engaged my pupils to seek their opinion on what I should do to improve on their participation, using a structured questionnaire and also the suggestions of my colleague teachers. I realised from their responses that when pupils are given the topic in advance, it promotes active participation since they will be familiar with the content of discussion.

During cycle 2, I distributed open ended questionnaires to the children to state one thing each that they hated about group work.

In cycle 3, I looked for a teaching method that could increase their participation and introduced it.

RESULTS

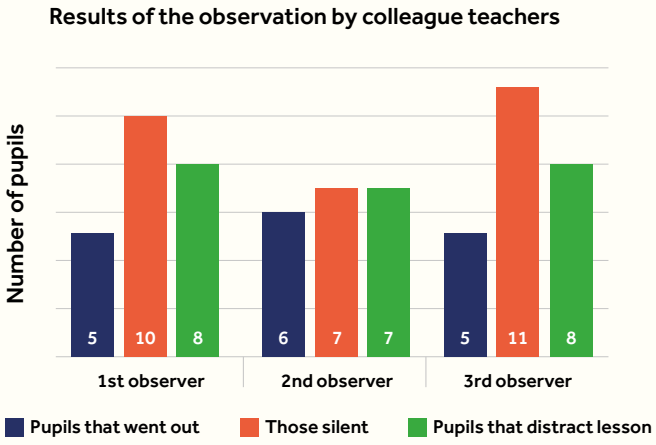
During cycle 1 it was clear that my pupils were not active in group activities.

Table showing result of teacher observations during group work

Areas observed	1st observation	2nd observation
	No. pupils	No. pupils
Number of pupils who went out of the class during the task	6	8
Number of pupils who talked aside frequently	7	8
Number of pupils who didn't talk during the group discussion.	9	6

In both observations, more than half of each class did not actively participate in the group activity.

I also let three other teachers observe three different lessons each observing the same areas that I did. The summary of their feedback was that more than half of the children were not active participants during the lessons.



Having noticed that more than half of my class were not serious about group work I decided to find out why and this moved me to cycle 2.

38 of my 40 pupils responded to my questionnaire and these were the responses that frequently came up:

Statement	Agreed	Disagreed
Friends will laugh when I do not say anything	21	17
Some colleagues do not like to participate	25	13
I will be ashamed when I say the wrong thing	20	18
My colleagues work faster, so I am often lost	23	15
I feel my ideals are not correct	19	19

From my analysis, I realised that many of the pupils will never take part in any group activity, because instructions for the task are not clear to them so they remain silent since they will not like friends to laugh at them when they say the wrong thing. I also learned that most often the slow learners are left behind by fast learners during group activities.

Having realised that the pupils were not prepared for the group exercise and therefore did not have confidence in their ideas, I tried to figure out with them the way forward by administering a structured questionnaire.

Having responded to my open-ended question and later closed questions, more than half of my pupils agreed that giving them the topic of discussion ahead of the task can increase their participation in it.

I designed a group activity, asking pupils to study the features of an informal letter. The day before I asked them to discuss their findings in groups and used them to write an informal letter. More than three quarters of the pupils were actively involved in the activity.

WHAT I LEARNED

This research brought to my notice that I have been making mistakes in the classroom or that sometimes I have not been using the appropriate method to teach a particular topic or lesson. I now realise that there is no difficult topic, only a wrong method of teaching. Once you apply a suitable method, the learning outcome will be achieved. Now, the moment I call group work my children will be eager to partake because I will prepare them first before the task.

I learned that when kids are prepared for group work or discussions they can do well in it.

Furthermore, I learned that classroom research is a continuous process. Finding a solution to a particular problem can lead to another question which a researcher needs to also investigate as the work goes on. As I was trying to know why my children were not active in groupwork I came to realise that they weren't able to read or write simple sentences clearly at that level. So, it also became a concern to me to know why.

I would like to advise any classroom teacher that teaching depends on methodology, not how much you can talk. I will always remember that classroom research is one of my best tools as a classroom teacher.

Above all, I learned that classroom research should be a priority for any classroom teacher because it enhances efficiency in the classroom. A lot of mistakes are made by teachers in the classroom during lessons. It is only classroom research that can correct them.

Julliet

TEACHING A LARGE CLASS

RESEARCHER
JULLIET KAMARA

SCHOOL
ISLAMIC JSS

SUBJECT
LANGUAGE ARTS

SSO
GEORGE TUCKER

DISTRICT
BO

BACKGROUND

Frankly speaking, the teaching of a large class of learners specifically entails several unique experiences and difficulties. These challenges are compounded in a traditional classroom situation because we do not have enough school buildings to allocate fewer learners to each class.

Where most classes have 50 pupils, we have 90-100. This problem has been challenging in the area of teaching.

Instead of getting the attention of all the pupils in the classroom, only pupils who sit in front of the class benefit from that particular lesson, and those at the back do not concentrate. Sometimes those at the back will be busy playing with their phones and talking while learning is going on.

This worried me so much that I asked myself these questions:

- How can I get the attention of my pupils?
- Is it possible for me to involve everyone in the learning?
- Can I create perfect learning conditions?

THE STUDY

In my work, as a teacher I tried to identify the challenges involved in teaching a large class of pupils. I encounter pupils' coarse noise in my class even while I am teaching but when I would ask why, pupils would give different excuses:

''He stepped on my desk''

''He steals my pen''

''She took my chair''

It was very difficult to deal with my pupils is such situations. I invited a colleague teacher to help me deal with the situation. He came over to observe my class. He advised me to rearrange the seating so that I would be able to walk from the front and to the back of the classroom.

Initially I thought it was impossible for me to overcome the obstacles in teaching a large class. I started to find out reasons for a noisy class and then I found solutions to that as well.

I first gave pupils individual tasks, but still the noise remained. I then put them in groups, set a time and a title for a composition for them to work on. I told the pupils that the group that finished first could go out for lunch and the group that finished last would sweep the classroom. With this motivation, I saw cooperation, inclusiveness and interest from individual groups. This grouping of my pupils helped reduce some of the worries. I later on created a C-curve seating arrangement with my pupils in order for me to master my classroom. This was good compared to the old set-up because it involved everyone.

RESULTS

In cycle 1 , I discovered that pupils focused more on their individual work. They sometimes found questions difficult and asked their classmates for answers. If they could not get the answers from their classmates, they turned to me for help. From this observation it was natural for my pupils to consult with each other. However, it was still difficult for me, so I decided to call a colleague teacher for advice. He advised that I should bring those at the front seat to the back.

But still the problem remained the same, so I decided to put them in groups. Before grouping the pupils, I motivated them by singing. After that, they became active and ready to learn. I tried to understand whether they liked the group work. A few pupils said that they were prepared to work on their own, but the majority believed that pair work was the best in terms of helping them to work more comfortably. I suggested the same.

In the final cycle, I quickly put them in pairs and wrote questions on the blackboard. In general, this worked well. My pupils worked better and their performance seemed to improve.

WHAT I LEARNED

Interestingly enough, I have had much understanding from this research work. I gathered a lot of experience, not only from my colleague teachers but from my pupils as well. My study has made me interact with my pupils in class more. I also learned from my school support officer and my college teachers were very supportive in my endeavour. Adaption of pupils to rearrange the classroom was too challenging for my research. It was difficult for me to interview individual pupils because the classroom was crowded.

As a result of this study, I now use pair and group work along with individual work to include all my pupils. I also encourage my colleagues to use the same method to improve their experiences. I respect pupils' attitudes to each other and to learning. After all, I become the master of my classroom.


HEAD BOY

CHANGING TEACHING STRATEGIES

CHANGING TEACHING STRATEGIES

Whilst many teachers have traditionally seen their role as 'delivering the curriculum' and 'administering discipline', the teacher research studies shows that teachers in Sierra Leone are beginning to move towards prioritising learners' needs and changing their teaching approaches to support learners to actively participate in the learning process. However, evidence shows this shift is not always easy to make in classrooms where classes are large, poorly resourced, and where cultural norms work against the kinds of relationships and attitudes that underpin learner-centered education.[1]

Reflections on teaching practice

Teachers have been supported, through Leh Wi Lan, to regularly reflect on their teaching practice and assess their lessons with a School Support Officer. Through regular observation and feedback sessions, teachers assess teaching strategies they use in the classroom and receive feedback on what they do well and what could be improved. The lesson observations score teachers against the criteria including, the use of teaching and learning materials such as Lesson Plan Manuals, the use of group work, positive language, feedback and giving positive praise, as well as how they use assessment which involves checking learning. They are also scored on how they use inclusive approaches, especially supporting girls and children with disabilities.

In addition to the scoring, School Support Officers provide verbal feedback to teachers on what they did well – *which are given "stars"* - and what actions they could take to improve - *given "wishes"*. Over the academic year 2019/20, when the teacher research took place, the pedagogical skill which teachers improved the most was the use of the Lesson Plan Manual. Most of the stars were awarded for pupil participation in lessons, inclusive approaches, and subject knowledge.

Enhancing pupil participation has been a prominent theme both in teacher research and in lesson observation feedback and is clearly a teaching strategy that is important to teachers in improving learning outcomes. The research studies shown in the following section summarise the techniques and approaches that teachers have sought to test in classroom settings.

Understanding pupils' perceptions of learning

A common starting point in many research studies was the recognition that many pupils did not actively participate in lessons. Teachers researched pupils' perceptions finding that a common reason for low participation was because the work was too difficult. Importantly, the research studies provided teachers with the time and opportunity to adapt their approaches to better meet learning needs and assess the extent to which these changes improved participation and learning.

Using motivation and praise was widely seen as a simple, effective method to improve the interaction between teacher and pupil. One teacher reported that getting information from pupils was initially difficult because his approach was unfriendly. Others observed that calling pupils by their names helped.

[1] Schweisfurth, M. (2019). UNICEF Think Piece Series: Improving Classroom Practice.

Strategies that acknowledged the level of learners, supporting and making time for their learning, emerged as highly effective. This included helping pupils with challenges, such as pronouncing difficult words. Other changes to teaching methods that were explored included slowing down the pace at which they taught content, using group and pair work, using open-ended questions, and making a special effort to ensure clear instructions and explanations were given before and during classroom exercises. Shared rules and expectations were also seen as important and, in several cases, agreement on the kind of language acceptable to use in class and equal treatment for all proved to be effective.

Adopting techniques to make learning interesting to pupils was another key shift that teachers made. This often involved using games, texts pupils can relate to, and linking the concepts being taught to real life situations with which pupils could identify. The use of teaching-learning aids, such as a word wall, and focusing on learning by doing also improved pupils' interest in lessons.

Using approaches to reduce fear and anxiety were also identified as good strategies to increase inclusion and motivation. Being less aggressive when incorrect answers were given, not using the cane, and preventing pupils laughing at peers were all found to be helpful.

Overall, teachers involved in the research developed a range of different strategies to use in class and, critically, each of these were developed as a response to observed challenges that pupils experienced. Clearly, several strategies they employed came through training and coaching they had received, and the research provided the opportunity to apply and test these techniques. Some teachers reported gradual improvements acknowledging that it often takes time between knowing a method and being able to use it effectively in an over-crowded, under-resourced classroom. However, positive feedback from pupils and colleagues demonstrates the value of adapting and applying different teaching strategies to accommodate different learners and manage challenging contexts.

> "I have come to the realisation that I cannot use just one method to teach my pupils. Using several methods to teach will help them gain a lot. In fact, using different methods to teach has given me an insight into my pupils and their abilities."
>
> **Kona Soko Theresa** (SSS Teacher in Western Urban)

Steven

HOW TO MANAGE AND OVERCOME PUPILS' FEAR OF MATHEMATICS

RESEARCHER
STEVEN BOBOR AMARA

SCHOOL
ERNEST BAI KOROMA EXPERIMENTAL JSS, MAKENI

SUBJECT
MATHEMATICS

SSO
JOHN E. KARGBO

DISTRICT
BOMBALI

BACKGROUND

I am teaching in a community where most pupils considered mathematics difficult to study. The pupils believe that those who study mathematics are gifted learners. Each time I entered the classroom to teach, pupils could be seen dodging the class by going outside through the back door and I realised that they did not like my subject. I decided to carry out some research. I took the challenge that with trials nothing is impossible. It then became research which is aimed at finding out possible solutions to helping my pupils like mathematics.

THE STUDY

I jotted down some of the issues observed when teaching and reflecting on the pupils in class in terms of their contribution and responses made. I wanted to know why some of my pupils feared mathematics and to understand how I could make them love it instead. I invited a colleague teacher to observe my class to identify the causes of fear. I also asked another colleague teacher to help me administer questionnaires to randomly selected pupils from six classrooms. This was done in cycle 1.

I identified pupils who very rarely attended my classes and I reviewed the classroom arrangements, placing the weak pupils with the fast learners. I invited a colleague and the principal to observe my lessons and changed how I taught based on their feedback.

RESULTS

Results from my questionnaire showed that unfriendly relationships between pupils and teachers, the way in which teachers teach their class and how the teacher handles difficult topics, all play a huge role in making pupils fear mathematics.

No	Factors affecting pupil's perception of mathematics	Disagreed	Agreed	Strongly agreed
1	Unfriendly relationship between pupils and teachers	10	20	30
2	Teachers methodology in teaching his or her lesson	6	15	39
3	Teachers incompetency of handling some difficult topics	10	15	35
4	Most primary schools do not have mathematics teachers to build a solid foundation mathematically in pupils	6	39	15
5	Teachers coming to class with cane in their hands	3	47	10
6	Pupils given tasks without instructions	0	12	48

Based on the feedback I received from a colleague and from the principal, I allowed the pupils to solve problems for themselves and put weaker learners into groups with others, giving them responsibilities so they would get involved in activities. This brought some positive changes, increasing pupils' participation in class and reducing the number of pupils dodging my classes. I realised that the involvement of pupils with different abilities in group work has had a positive impact on learning outcomes and mind set.

WHAT I LEARNED

I have learned a lot from this research. It helped me a lot to understand and take a careful look at every situation. For my teaching, I learned that weak learners should be given responsibilities in group work, to encourage participation and that teachers should use a variety of methods to teach their subject. I also learned that teachers should be involved in team teaching so that difficult topics are not avoided, and that extra time may be needed for slower learners. As the teacher, it is important to eliminate the fear of mathematics. Pupils should receive support both at home and school to increase positive attitude towards mathematics.

Fasalie

IMPROVING PARTICIPATION OF MY PUPILS IN MATHEMATICS LESSONS

RESEARCHER
FASALIE CONTEH

SCHOOL
ST. GEORGE AGRICULTURAL SS, BENDUGU

SUBJECT
MATHEMATICS

SSO
ALHAJI ALPHA KAMARA

DISTRICT
TONKOLILI

BACKGROUND

The majority of Junior Secondary School (JSS2) pupils hardly talked in my four mathematics lessons in the first week when school reopened with all the detailed explanations and series of illustrations. I gave them class practice to discuss and give feedback. At the end I found that only 12 of my 60 JSS pupils had actively participated. It is against this backdrop that I decided to undertake this research to find out the reasons why most of my JSS II pupils were not participating in my mathematics lessons and identify appropriate solutions to increase their participation.

THE STUDY

I invited a colleague teacher to observe two different lessons after discovering the low participation of my pupils in mathematics. I prepared a questionnaire which he used to observe two lessons. From his findings, which I recorded in my diary, I confirmed that the majority of my pupils were not actively participating in my mathematics lessons.

I organised a focus group discussion with the pupils to understand their own perceptions of low participation in our mathematics lessons. I recorded their various contributions in my diary for further investigation even though a few did not give feedback. From their feedback, I concluded that my methods of teaching were also contributing to their lack of participation in my mathematics lessons.

While 25 pupils said they liked to speak English, 15 said I was teaching too fast, five said they didn't like mathematics and 15 said I didn't ask enough questions in my lessons.

FEEDBACK FROM PUPILS IN FOCUS GROUP DISCUSSIONS

Results from my questionnaire showed that unfriendly relationships between pupils and teachers, the way in which teachers teach their class and how the teacher handles difficult topics, all play a huge role in making pupils fear mathematics.

I did my research study in three cycles over seven months:

In cycle 1, I paired the clever pupils with the slow learners in group work; I used simple language, and asked both open and close ended questions. I gave them guided practice for 15 minutes and saw that more pupils were beginning to participate in the lesson.

In cycle 2, I involved my school principal to observe another lesson with the same class, and he also agreed that the participation of the pupils was low. He therefore recommended that all mathematics lessons should be taught in the morning hours. He further rearranged the timetable for all mathematics lessons to be taught in the morning periods. This action of the principal helped greatly to increase my pupils' participation in my

mathematics lessons. The classroom atmosphere was positive for the pupils during the morning lessons. I gave them group work to discuss and give feedback for 20 minutes and again, I saw an increase in participation.

In cycle 3, after discovering that pupils' speaking skills were low I gave them open ended questions to discuss and give answers. At the end of the lesson, 15 pupils were finding it difficult to speak English. I encouraged the pupils who were shy or could not speak English clearly to share and answer questions in the local language (Krio).

At the end of the three cycles, I experienced a significant improvement in the level of pupil participation in my mathematics lessons. The slow learners were now involved and participating in my lessons. This was due to the above techniques implemented in the various cycles. A good number of pupils were unable to participate in cycles 1 and 2 due to low speaking skills, which was addressed in cycle 3.

RESULTS

Findings from my colleague's observation showed: lack of teacher skill in grouping pupils in group work, pupils were not very interested in the subject, most were not involved in the lesson and did not understand the instructions, and the atmosphere was not conducive for the pupils.

Questionnaire for colleague's lesson observation

No	What to observe	After 15-20 Minutes			After 30-35 Minutes		
		Yes	No	Sometimes	Yes	No	Sometimes
1	All instructions are clear?		★				★
2	Every pupil was involved?		★				★
3	Teacher-centered during teaching?	★			★		
4	Pupils are interested in the lesson?		★				★
5	Teacher was skilled in organising group work?		★			★	
6	Class atmosphere was positive?	★				★	

Factors preventing the majority of pupils participating in my mathematics lessons:

- The language barrier.
- Failure of using skill in grouping during group work was preventing the weak pupils from contributing during group work.
- The clever pupils shared ideas with their (clever) colleagues, and the weak pupils were given less attention.
- Most of the pupils could only participate in lessons when they were asked questions and allowed to discuss and give feedback.
- Conducting mathematics lessons in the afternoon prevents most of the pupils from participating, as a result of the poor atmosphere of the class.
- Fast teaching and failure to ask open ended questions that could allow pupils to think and give positive responses.

WHAT I LEARNED

This research study has revealed to me that a teacher's methods can hinder the participation of pupils in lessons. The failure to involve pupils in lessons by asking open and closed ended questions, giving feedback, organising group work and using simple language will result in low pupil participation.

I also learned that the classroom atmosphere and timing of mathematics lessons can influence pupils' participation. In the third cycle, the participation of pupils increased after the principal had adjusted the timetable for math lessons to be in the morning.

Collaborative work with colleague teachers and pupils greatly helped to enhance active participation of pupils. At the end, I concluded that problems found in the classroom can be solved by involving other teachers and the pupils themselves.

Kona

EXPLAINING DIFFICULT WORDS TO HELP PUPILS READING ENGLISH

RESEARCHER
KONA THERESA SOKO

SCHOOL
VINE MEMORIAL SECONDARY SCHOOL FOR GIRLS

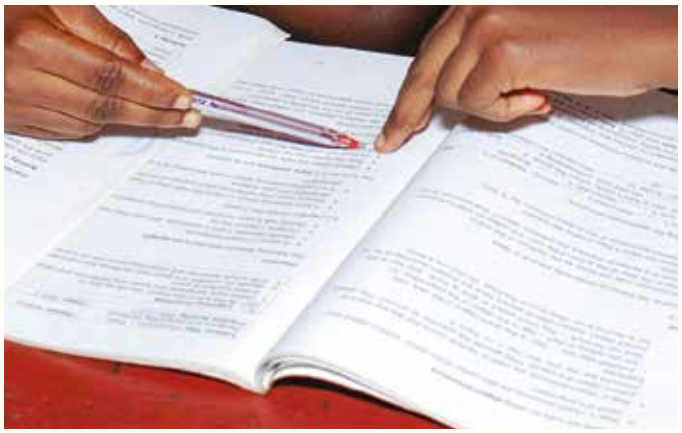
SUBJECT
ENGLISH LANGUAGE

SSO
PATIENCE YEI TOMMY

DISTRICT
WESTERN URBAN

BACKGROUND

I teach English at Vine Memorial Secondary School for Girls at Senior Secondary School (SSS) level. I was not pleased with the performance of my pupils on reading activities. I did lots and lots of work with them but their participation in class reading exercises was very poor. Reading and understanding texts and passages was a major problem for them. As a result, answering questions on comprehension passages posed lots of problems for these pupils. I then thought of various methods that I could use to understand the reason for their poor performance and improve their skills in reading.



THE STUDY

When I was teaching comprehension passages, I asked a colleague to observe me. She was willing and joined me in class. I read the passage and asked the pupils to read on their own. I realised that they were not reading well. I asked them to read individually but only a few could read. My colleague's observation led me to do another reading exercise with my pupils. I made sure that key words were dealt with in detail before we began. Some pupils started showing interest in reading. I also asked the class to applaud their friend when they read well. This made almost all the pupils yearn to read.

After I got feedback from my colleague, I decided to look closely at another passage with my pupils. The same colleague came to observe me. I divided my pupils into groups. I read the passage and singled out the difficult words. I sounded them out and asked my pupils to sound them after me. We read the passage together. Each group then read again. I then asked my pupils to answer the questions. When I went round, I noticed that most of them were getting the answers right. At the end of the class, I asked them questions such as:

- Do you like reading?
- How much knowledge do you have on/about comprehension passages?
- Don't you like the way I teach?

Most of them told me that they would rather choose writing than reading.

The third lesson with my pupils was an interesting one. As usual, I read the passage and dealt with the difficult words. The pupils had their groups and were ready to learn. This time, quickly and quietly, they read the passage and answered the questions on it. I was happy that my pupils could now participate actively in my class. Those who were considered to be the weak ones were on their toes to answer questions. The few smart ones had improved more. I had changed my method of teaching.

RESULTS

In cycle 1, I called a colleague to observe me so as to know my weakness in teaching reading exercises. She told me to put more premium on explaining key words before teaching.

After the lesson where I followed her advice, I saw that my pupils had improved. When I asked them the reason for their improvement, they had this to say:

- We were finding it difficult to read because of some strange words but we can deal with them now
- Some of us were too shy to read but you've let us know that we came to learn.
- We have confidence to read on our own now.

Improvements in pupils participation in English

Cycle	Cycle 1	Cycle 2
Can read well	9	41
Shy to read	18	6
Can't cope with difficult words	26	6

WHAT I LEARNED

The teacher research has helped me greatly. My perception about teaching has changed. The interaction between my pupils and myself has increased greatly. I am sure I have got a lot of experience from this research. I have come to the realisation that I cannot use just one method to teach my pupils. Using several methods to teach will help them gain a lot. In fact, using different methods to teach has given me an insight into my pupils and their abilities. The fact that I had an open mind to tell a colleague about the problem I was encountering with my pupils helped me to have a good interaction with my pupils in class. My colleague was able to point out my lapses and I set out to work on them.

Not only did I get a colleague teacher to observe me teaching but my student support officer (SSO) and other teachers would always work with me when we met. My SSO would tell me that I should keep probing and probing to get a positive result from my pupils as I taught.

Now because of the large class (over 50) I was not able to capture all of the pupils at once. Also, since most pupils had a poor reading background, it was not easy for me to get the pupils to read on their own.

I also believe that our pupils must be supervised and monitored if they are to progress. Pupils should not only be assessed in writing but reading as well. I am sure the methods (probing, group work, teacher observation) I have used have placed me and my pupils in a better position. I would like to stick to these methods. It has helped almost all my pupils to be involved in the learning process (both fast and slow learners). Those who were considered to be the slow learners can freely discuss their problems with their peers and ask for help.

James

HELPING JSS PUPILS TO DEVELOP INTEREST IN MATHEMATICS LESSONS

RESEARCHER
JAMES KALLAH FORNAH

SCHOOL
BENEVOLENT ISLAMIC JUNIOR SECONDARY

SUBJECT
ENGLISH LANGUAGE

SSO
DOMINIC M. L. CONTEH

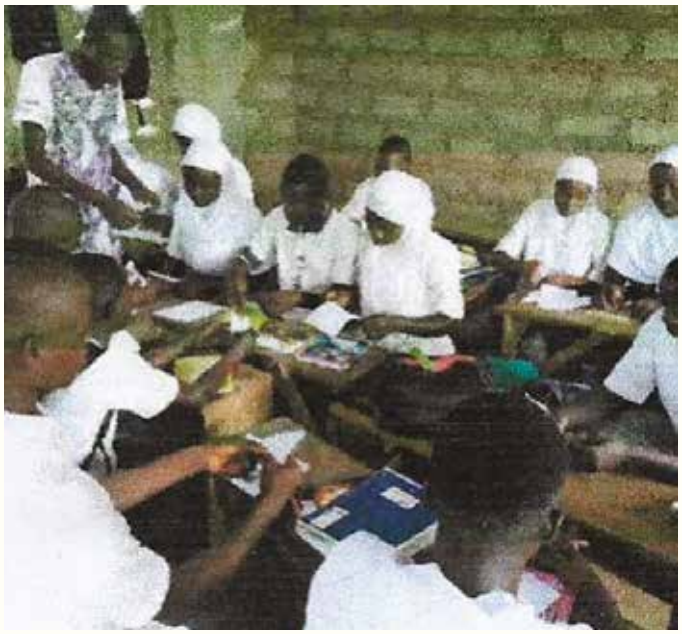
DISTRICT
KARENE

BACKGROUND

I am a village teacher in a community school and helping JSS pupils to develop interest in mathematics is my passion. However, whenever I was delivering a maths lesson, my pupils hardly showed any interest. They rarely participated actively in my maths lesson.

When I made any attempt to involve them in class activities, they would often shy away and remain silent.

Finally, having been attached to the teacher research programme with Leh Wi Lan, I decided to carry out a research study in order to find suitable methods to motivate my JSS pupils to develop an interest in mathematics.



THE STUDY

As a JSS teacher, I was facing some difficulties in getting my pupils to develop interest in my maths lessons. I decided to ask myself the following questions:

- What should I do to develop my pupils' interest in mathematics?
- What was wrong with my methods of teaching mathematics?
- What techniques should I use to encourage my pupils to develop an interest in mathematics?

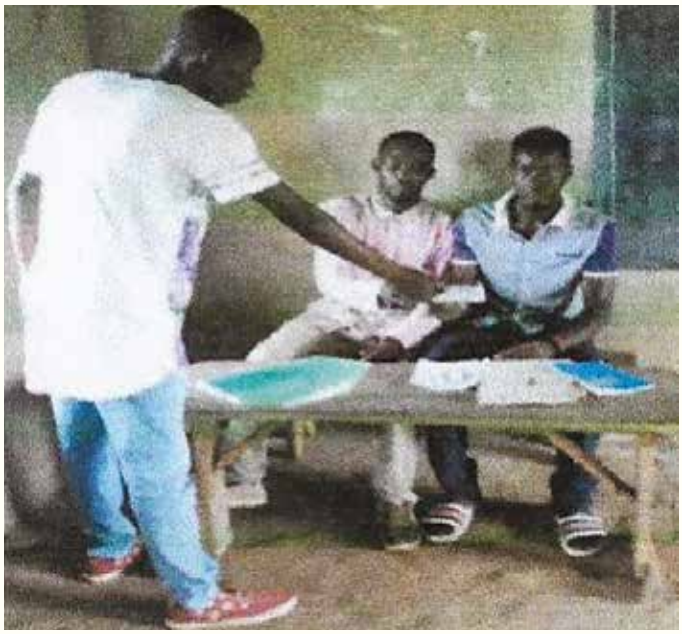
I began to collect information from various sources. I involved my colleagues and my pupils to understand the situation. In cycle 1 I started collecting data based on the research questions. It was a bit challenging for me to finish on time. I tried to ask my pupils why they did not normally participate in my lesson. I used questionnaires and interviews as tools for pupils and colleagues to ask them about teaching methodology.

In the first place, I tried to arrange the seating accommodation into different groups of eight, nine and ten respectively. The purpose of grouping pupils is to create a learner-friendly classroom atmosphere and to encourage peer education when pupils are grouped together.

I started cycle 2 with a new idea. Based on the data collected, I reduced the number of pupils into five, six and seven respectively. I came up with an idea that made every pupil take active part in the lesson which I named Puzzle. Puzzle is a mathematical form of game where you solve number problems. For example, finding missing numbers, guessing the operation, or finding different ways to make a total number. It stimulates the interest of the learners through fun. I used cards, papers and other objects as teaching aids to make it more like a game. I also introduced another technique to explain the lesson. This involved

giving pupils the answer before solving the problem and then telling them the technique I use to solve the problem. In this cycle, I used new skills and techniques to teach in the classroom.

In cycle 3, I went further to make sure that everyone enjoyed the lesson and improved. This time, I brought-up another technique for which I used paper, glue, a ruler and rope to teach the lesson on shapes. I introduced the method of 'learning by doing' so that pupils could take active part in the lesson making shapes with the rope. I also went around the class to find the group that was doing the best to help with motivation.



RESULTS

I obtained the following responses from my pupils when I applied the questionnaire. The information collected is shown on the table below:

Improvements in pupils participation in English

Cycle	Cycle 1		Cycle 2		Cycle 3	
Questions asked to pupils	Yes	No	Yes	No	Yes	No
Does the teacher motivate pupils?	2	28	25	5	30	0
Does the teacher use teaching and learning materials?	5	25	28	2	28	2
Does the teacher use skills in teaching?	4	26	26	4	28	2
Does the teacher humiliate pupils?	10	20	6	24	5	25
Does the teacher use group work/seating?	5	25	5	25	30	0

In cycle 1 the improvement rate was very low because of my negative attitude; lower teaching skills and poor use of teaching aid materials.

Cycle	Cycle 1	Cycle 2	Cycle 3
Number of pupils improving	5	9	24

In cycle 2, the improvement rate was very high, with almost two thirds of the 30 pupils showing an improvement as a result of my changed attitude, new teaching skills and use of teaching aid materials. In cycle 2, the same proportion of pupils said they enjoyed the lesson.

In cycle 3, the improvement rate was excellent, with 24 pupils developing an interest in the mathematics lesson.

WHAT I LEARNED

Despite challenges, my research has helped me understand my classroom problems and proffer solutions:

- Using puzzles in the teaching of mathematic lessons helps pupils develop an interest in mathematics lessons.
- Pupils like learning by doing.
- Pupils learn best if the teacher uses teaching aids in mathematics lessons.
- Using a reflective diary during research helps you to come to conclusions.
- A feedback paper is one of the means by which teachers can check that pupils understand and have interest in the lesson.

Finally, helping pupils to develop interest in mathematics was hard work. Nevertheless, it was not easy to go deeply into the problem. Pupils that were shy in mathematics lessons are now coming forward to speak and make meaningful contributions. Using motivational skills in teaching mathematics goes a long way to encourage pupils to develop an interest in mathematics lessons.

Dohyne

IMPROVING PUPILS' INTEREST IN MATHEMATICS

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SUBJECT
MATHEMATICS

SSO
EMMANUEL S. JAMES

DISTRICT
KAILAHUN

BACKGROUND

In my mathematics class, I noticed there was a big problem. My pupils could hardly participate in class due to lack of interest in the subject. I wondered why and I set out on this journey. From my observations, I realised that most pupils lacked basic numeracy skills right from their early stage of learning. They see mathematics as being too difficult for them to learn most especially during the afternoon periods.

THE STUDY

In my research, I aimed to improve my pupils' interest and find out how to get them to engage effectively in my mathematics lessons. In order to achieve this, I tried to answer the following questions:

- Why do pupils lack interest in the subject?
- What skills do they need to improve on their interest in the subject?
- What teaching techniques should I use to improve and make my lessons effective.

I wrote my thoughts and findings in my reflective diary, developed questionnaires to seek my pupils' opinions on both the subject and on my teaching method. I also had discussions with colleague teachers on how to make lessons effective and interesting for learners.

In cycle 1 I changed the teaching time from the afternoon to morning periods when I thought their minds and memory would have been fresh for learning. At first, the teaching time was a big challenge, I noticed pupils being fatigued before the start of my lesson. I engaged the school administration to review the teaching time for mathematics on the teaching timetable, this started improving pupils' participation, though not as expected. I continued my efforts to achieve my aims.

After cycle 1, I thought I needed to identify why my pupils were not interested in my subject. First, I asked them orally but they were not interested in giving me an answer. Then I discussed with my colleague teachers and the head of the mathematics department and we made some statements in a questionnaire for the pupils.

Yet, this was not the solution. **In cycle 2,** I administered questionnaires to seek pupils' opinions and looked at the results critically. I listened to my pupils' opinions and took them into consideration. I designed a questionnaire and collected data on their views on the reasons for the lack of interest in the subject and their low participation. I also looked at the suggestions of my colleague teachers on how their lessons had been effective and interactive.

Finally, in cycle 3 most of my teaching methods were changed to reflect the responses I had got from my pupils. I decided to build basic numeracy skills that pupils lacked in their early learning stages and backed this up with activities that stimulate learning, motivational words and praises that make learning exciting. I engaged pupils in five different lessons throughout the week. Part of my lesson time was used to motivate them by giving praise especially when they did well in my lessons. This made pupils feel excited about learning.

RESULTS

My research revealed that teaching time matters in the learning of mathematics, especially for beginners. Failure to identify barriers to pupils' learning and effective engagement and collaboration with pupils will prevent them from taking part in lessons and hence make learning of mathematics disinteresting.

In cycle 1, I discovered that, the teaching time was not favourable for my learners. I observed that learning was boring for them, they were already exhausted in the first morning periods so my lessons were not of their interest. I asked one of my colleagues to observe my lesson in the afternoon. He also noticed that most of my pupils were either sleeping or they had no time to take part in the lesson. On changing the teaching time from afternoon periods to morning, I realised that, out of 32 pupils, around eight of them now started paying attention to the learning of mathematics and began participating in the lessons.

Results from the questionnaire I gave to my pupils after cycle 1 showed that most of the pupils said they had problems with my methods and thus found mathematics difficult to learn.

By the fifth day, the majority of my pupils were actively participating. Since they now had the numeracy skills missing from their early learning, lessons were interesting, and they felt motivated and excited for learning. Pupils were now engaged in solving exercises in groups and independently.

WHAT I LEARNED

In my research journey, I learned that although most of the pupils tried, mathematics seemed to be a terrifying subject for them when there was no motivation and a lack of basic numeracy skills. This affected their participation because they were afraid of responding wrongly.

I also learned that most times when children are engaged in a friendly manner, they can provide reasons why they are challenged with one's lesson. Getting information from pupils was initially difficult because my approach was unfriendly.

Pupils' opinions of mathematics

Statement	Strongly agree	Agree	Disagree	Strongly disagree
I have problem with the maths teacher	30	2	0	0
I do not like mathematics	19	10	0	3
Mathematics is difficult	30	0	2	0
I am not motivated in the class	30	0	0	2

In cycle 3, I noticed from my pupils' responses that my approach was faulty. I was more concerned about working to improve their basic numeracy skills than motivation. In a focus group discussion, I realised that colleagues' classes had been effective because of the kind of methods they use in their everyday teaching and I considered their suggestions greatly.

When I began motivating pupils and giving them praise, many opted to be given similar opportunity to participate in the lesson. I observed this in two different days, seeing that learning became interesting, and realised that participation had started growing as we moved gradually from the third to the fifth day of my lessons.

I also learned that classroom research needs time, collaboration and support from others to help one to achieve the goal of solving classroom problems.

Finally, I learned that if the classrooms are carefully explored and those results are implemented in classrooms, learning can become effective and so achieve better learning outcomes.

I enjoyed this type of work because sharing classroom experiences with others is a very effective way to overcome classroom challenges. I look forward to further opportunities that can lead to classroom improvement. I am excited to say, such activities can help one to grow professionally and build on one's future career.

WHY IT IS HABITUAL FOR JSS1 PUPILS TO CAUSE NOISE DURING MATHEMATICS LESSONS

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SUBJECT
MATHEMATICS

SSO
PATRICK K CONTEH

DISTRICT
FALABA

Abubakarr

BACKGROUND

As a trained maths teacher, I was not happy with the level of noise caused by my JSS1 pupils during maths lessons. Most of the time, when I came up with a plan to do or discuss with them, the pupils disappointed me. They caused noise without paying attention to me which prevented them from participating and make me unable to complete my lessons on time. Several times I had tried to overcome this challenge but without success. As a classroom teacher it concerned me and prompted me to find out the causes of the issue.

THE STUDY

As a maths teacher, I was facing some difficult problems. Some questions came up. What were the reasons for the habitual causing of noise during maths lessons? Why were some pupils inactive during lessons? What were their attitudes and approaches to new lessons? What they do during lessons?

So I began to collect information from all corners. I involved my principal, colleague teacher and teacher research mentor to look deeply into the issue and I tried to explore the pupils' views.

In cycle 1, I started finding the appropriate tools to collect data for my research. I finalised my research question and chose three tools to collect data: focus group discussion for pupils' feedback, observation from colleague teacher feedback, and self-reflection. It was challenging for me to finish in time.

After finalising my research question with my SSO, I decided to use focus group discussions to get pupils' views on why they caused noise during lessons and whether they like my teaching methodology, for example.

I also asked my colleague teacher to observe my lessons and feedback to me on the behaviours and approaches of pupils during the lessons.

School hours are very tightly arranged for me. I used 25 pupils as a sample for the focus group discussion and divided them into five groups. I invited my colleague to observe my lesson. I discovered that the feedback method helps and some pupils like it.

I started **cycle 2** with some new ideas based on the feedback from the data collected in cycle 1. The different responses made me adopt different approaches and, with support from my principal, colleague teacher, SSO and pupils, I took steps to overcome the problem.

I worked with the same groups and used all the tools that I used in cycle 1, but this time around I made the weak pupils and those with impairments be group leaders in order for them to be in the centre of all class activities.

We agreed on rules for the use of mobile phones, the kind of language acceptable to use in class and equal treatment for all. I called pupils by their names and asked for their views, giving them tasks to perform individually and in groups. I used different teaching aids such as posters, charts and maths games that were appropriate for encouraging participation and contributing their different ideas.

I noticed that the classroom of JSS1 is very close to the canteen which leads to the increasing of noise level so I engaged the principal, colleague teachers, traders and SSO and together we agreed to find another place for the canteen, which was at a distance from the class.

RESULTS

According to my colleague teacher who observed my lessons during cycle 1, my teaching was teacher-centered and I involved few pupils during the lessons. This made pupils lose attention and not participate. He also said that I don't use teaching aids and maths games or explain and relate mathematics to everyday life in a way which could help make lessons interesting and interactive.

Lastly, he said the pupils liked to play with phones and to insult each other. He then suggested that I should make my lessons pupil-centered and inclusive and use the appropriate teaching aids and relate mathematics to everyday life.

In my own reflective diary, I identified that pupils who live near the school feel superior and do not accept other views. I also identified that there were pupils with impairments.

After all of the changes introduced during cycle 2, I realised that the pupils were actively participating, giving suggestions and, above all, that the noise rate was drastically reduced. I repeated these methods with other lessons. The most noticeable thing was that pupils all took part in the classroom activities. I appreciated their logical thinking, suggestions, participation and approaches to new lessons. When I analysed my data I could see complete improvement.

WHAT I LEARNED

I never thought of writing about classroom challenges before, but through this journey I learned a lot and acquired much knowledge and gained experiences from different people like the principal, SSO, colleague teachers, pupils and other educational personnel. I learned the following:

1. Applying various techniques in getting the learners' views makes the teacher and pupils active in their learning roles.

2. Involving the pupils in their own learning enables them to perform with confidence.

3. Engaging pupils in class will reduce noise level.

4. Keeping the interest of weak and impaired pupils when planning lessons will help them be at the centre of all activities in class and they will perform tasks well.

5. Sharing problems with a different set of people will enable you to easily solve your problems (two heads are better than one).

Teaching and learning is a long process. If we clearly identify the learning objective of the lesson and share it with pupils and involve them, it is much easier for learning. Working with my colleague teachers, principal, SSO and other educational authorities enhances good learning. I found the whole experience good for my personal development. I think through this research, teachers can develop themselves and also help colleague teachers and pupils to develop themselves too. I am praying that the opportunity will extend to other teachers who have not done teacher research yet.

Comparing feedback session between cycle 1 and cycle 2

Questions	Answers	Cycle1		Cycle 2		Reasons
		Number of responses	Percentage of responses	Number of responses	Percentage of responses	
Do you normally cause noise during math lessons?	Yes	20	80%	2	8%	Mathematics is a difficult subject.
	No	5	20%	23	92%	They always practice maths at home.
Do you like the teaching methodologies of the maths teacher?	Yes	10	40%	24	96%	The teacher involves all the pupils during lessons
	No	15	60%	1	4%	The teacher's methodologies are inappropriate
Can you suggest new alternatives?	Yes	18	72%	2	8%	They want all the learners to be involved during maths lessons.
	No	7	28%	23	92%	They are convenient with the teaching methodologies

Today

IMPROVING PUPILS' UNDERSTANDING OF MATHEMATICS LESSONS

RESEARCHER
FODAY BLESSING KPAKA

SCHOOL
BENEVOLENT ISLAMIC JUNIOR SECONDARY

SUBJECT
MATHEMATICS

SSO
THOMAS P. KAINDANEH

DISTRICT
BONTHE

BACKGROUND

I teach mathematics in the SSS III class and, for many years now, have noticed that my pupils find it very difficult to understand my mathematics lessons. As a result, many often fail my tests and exams and I am not happy with the situation. Sometimes it appears to me as if I am not knowledgeable in the subject or I do not know how to teach well.

When I observed this, I wanted to learn the reasons why my pupils find it difficult to understand my mathematics lessons and find out what I could do to cajole my pupils to understand my maths lessons.

THE STUDY

As a researcher, I initially started by finding out the root causes of the pupils' struggle with understanding the mathematics lessons. In my findings, I basically looked at different tools, such as reflective diaries, questionnaires and interviews, and observation of classroom activities by colleagues.

I went about my research using three cycles with a different focus in each cycle.

In cycle 1, I started collecting data based upon my research questions. I used two tools: questionnaires to interview the pupils; and classroom observations by my colleagues. These tools were used to help understand the problem and then consider different approaches to get to the solution.

In cycle 2, I applied a new teaching methodology and approach to see whether it was possible to create a positive change for my learners. I became more focused and franker than before, having discovered what was faulty in my behaviour, methodology and approach.

In cycle 3, I tried to understand what had changed since cycle 2. That is, by conducting tests and exams to know the pupils' performance after I applied a new teaching technique. I became a keen observer of the pupils' performance.

RESULTS

From my research, it became evident that my pupils find it extremely difficult to understand my mathematics lessons due to poor methodology and approach. I also discovered that without proper and effective monitoring, it is not possible to bring out the best in my pupils even with the best techniques.

Cycle 1 results: Interview with 48 of my pupils

The tables below shows the pupils' level of interest and understanding of the subject after answering to "yes or no":

Do you have interest in mathematics?	No. of pupils
Interested	15
Not interested	25
Not interested at all	8

Do you understand my mathematics lessons?	No. of Pupils
Understand always	5
Understand sometimes	10
Not understanding at all	33

In the interviews, I was able to talk to all the 48 pupils in my class. This process lasted for three months. In their different responses, they said that boring lessons, the speed of the teacher, their non-involvement in the lesson and the lack of patience from the teacher affected their interest and understanding.

Several said that my teaching was difficult because it focused on me, the teacher, and because the topics were difficult.

I let two of my colleagues observe my lessons for a period of two months. During these periods, each of them observed three lessons. These were the highlights of their observations:

- ✓ Majority of the pupils showed lack of interest during my observation.
- ✓ There was no child-centered learning.
- ✓ No assignment was given to be practised at home.
- ✓ Pupils did not participate in the lessons due to the use of the cane.
- ✓ The teacher didn't aid the pupils to practise during lessons.
- ✓ The delivered topic was difficult.
- ✓ Lack of monitoring of the pupils' work.

I also captured from my studies that many pupils don't spend enough time practising maths at home and without practice, the concept will be lost.

Cycle 3

I tried to know whether the new methodology worked well for the learners. I conducted a test and an exam, and compared the results against the results of an earlier test to see the difference in pupils' performance.

Records of a previous test and of a more recent test and exam

Records of previous mathematics test

Percentage	0 – 10%	11 –20%	21 –30%	31 –40%	41 –50%	51 –60%	61 –70%	71 –80%	81 –90%	91–100%
No. of pupils	30	11	04	02	00	01	00	00	00	00

Records of more recent mathematics test and exam

Percentage	0 – 10%	11 –20%	21 –30%	31 –40%	41 –50%	51 –60%	61 –70%	71 –80%	81 –90%	91–100%
No. of pupils	10	05	10	07	05	04	02	02	00	00
Percentage	0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%
No. of pupils	08	04	07	10	08	06	01	03	01	00

There was a gradual improvement in my pupils' performance. This shows that the new techniques worked well for my learners.

WHAT I LEARNED

The research I undertook has given me much experience. Mathematics is a special subject that needs special attention by tutors and the learners. My research helped me to understand that:

- Teamwork, coordination and consultation are very important in the teaching field;
- one man is not a reservoir of knowledge;
- the new methodology, of involving learners in lessons, worked well for the learners and increased their interest in mathematics;
- setting work for learners to do at home gives them more opportunity to practise and learn concepts;
- when the learners are motivated and encouraged, they grow to love the subject.

Mohamed

ENCOURAGING PUPILS TO SPELL BETTER

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TOMLINSON HIGH SCHOOL SONGO

SUBJECT
LANGUAGE ARTS

SSO
YUSUF KANU

DISTRICT
PORT LOKO

BACKGROUND

In the first week in Junior Secondary School two (JSS2), after a long holiday break, I asked my pupils to spell the word "element". I could see some frustration in some pupils' eyes because they were struggling. I realised then that they needed some confidence in spelling. Therefore, I decided to carry out research to look into the problems and find out how to help them to be more confident spellers.

THE STUDY

I wanted to make spelling easier for my pupils. Thinking about pupil struggles, I asked myself the following questions:

- Why are my pupils unable to spell?
- How can I help them to spell better?
- Do they eventually retain the spelling in their long-term memories?

These questions were important to me because I wanted my pupils to feel successful in whatever they wrote and to have resources available in schoolwork.

In cycle 1, I asked my pupils the following questions:

- Why do you find it difficult to spell?
- Do you have access to study and hunt for more spellings?
- What teaching and learning method would you like me to use?

From the feedback of my pupils, I tried to address the problem by using the spelling wall strategy. I also asked the whole class to search for words in their reading lesson and use these spellings to create a word wall and then keep a spelling notebook to record difficult spellings. After using the word wall in some lessons, my pupils wanted to write with me again because they felt some success with this method and did not need to ask me how to spell basic words.

More than half the words in the English language are not spelled the way they sound, and some pupils still struggled with letter sound recognition because of this. They used the phonological strategy to stretch out the words they heard most, but they were not able to put a correct letter with the sound. I wanted to make the process of writing enjoyable for my pupils as they tended to write boring or weak stories because they were not able to spell more elaborate words. However, when they told me their stories out loud, they were full of details but when they went to write them down, they changed the story completely because they could not spell the words correctly.

Pupils' performance was gradually improving, and I realised that pupils in JSS 1 could learn through games. In cycle 2, I invited my colleague to observe my lesson and I introduced a bingo game. During the game, I decided to pair pupils in three groups and share some bingo cards with each other. It meant that pupils were getting well-rounded spelling practice.

At first, I grouped them in three. I shared some bingo cards with each group, and I wrote spellings on the board.

While pupils wrote randomly, I hid the cards which contained the meaning of the word which had been written on the board. I then took one card and read the meaning on the card loudly while the pupils checked to see if their bingo card matched the word and the meaning which had been read out.

After the pupils found the word, they crossed it out. They had to cross all the words out and the winner was the first pupil to cross out all the words in a vertical, diagonal or horizontal line and shout 'Bingo'. At the end of the exercise, I re-stated the words which had been studied by pupils.

Next, I involved a colleague in observing me and he advised me to conduct a spelling test to understand pupils' performance. It helped me realise that pupils could memorise more than they could pronounce or write.

I recorded pupil and colleague feedback after every assessment to see if pupils' ideas of spelling had changed with the use of my intervention. Indeed, there was some little change between cycle 1 and cycle 2.

RESULTS

Factors affecting my pupils' ability to spell better, in order of how many pupils mentioned them:

1. Weak primary foundation
2. Time at home spent doing domestic work
3. Spelling is difficult
4. No study help at home

After cycle 2, my colleague gave me good feedback and told me to give my pupils more time and more assessment.

After implementing the bingo game assessment, I tested my pupils on the advice of my colleague: 25% passed the writing test, 42% passed memorisation test and 33% passed the pronunciation test.

WHAT I LEARNED

Throughout my research work, I came to understand that pupils could learn if only they are encouraged. Actually, the whole journey developed my teaching skills on how to capture the pupils' focus and encourage and be patient with them during their course of learning.

This study has contributed to my self-development. Over the years, the ability of my pupils to spell difficult words has been limited but, during this research, I have come to understand better how to manage a large class and tackle pupils' problems in spelling. Throughout this work, I have come to understand more fully about my educational development.

SEEKING LEARNERS' FEEDBACK

SEEKING LEARNERS' FEEDBACK

In many classrooms around the world, the teacher is the giver of knowledge and the learner is a passive recipient. Often, this is reflective of culture and practices in wider society where authoritarian adult-child relationships are the norm. Children may not be used to sharing their own views, opinions or giving critical feedback.

Teacher-learner dialogue

The common use of learner feedback to inform solutions and strategies for improvement has been a distinctive feature of this teacher research. In some cases, pupils did not answer research questionnaires or surveys or did not give full responses to questions. For teachers wishing to engage pupils in a dialogue about how to improve teaching, this type of engagement presents challenges.

Nevertheless, many pupils did respond to the opportunity to share their views. They also responded positively, recognising the impact of their interest or motivation, when the teacher took their views on board. The featured teacher research studies have provided evidence that effective teaching needs to be adapted to the needs of the child. They have also shown that delivering engaging and motivating lessons enhances learning. By talking to pupils, teachers are better able to understand what engages and motivates their learners.

Solutions for gathering and using learner feedback

One of the most important revelations from the research studies and a consistent finding overall is that, by talking to pupils, teachers better understand the barriers preventing pupils from attending, participating, and performing. With knowledge of the challenges, teachers were able to change their own practice and conditions in the classroom to alleviate barriers and support learners.

As a result of seeking learner feedback, teachers have done some of the following:

- Sought to help pupils fill some of their foundational gaps, by using local language, slowing down the pace of lessons, enabling pairing with stronger pupils, and using extra-curricular activities
- Supported pupils to feel comfortable and confident to participate even when they get an answer wrong or use English incorrectly. This has been through using praise, not using the cane, creating a classroom culture where pupils do not laugh at peers, using motivational techniques, removing fear and humiliation, and addressing gender barriers
- Sought to make their lessons more interesting using games, texts pupils can relate to, and linking lesson content to real life situations with which pupils can identify.

Overall, seeking learner feedback has led to the use of more learner-centered techniques, matching learning to pupil needs, capacities and interests. An important learning for one teacher from their research was that 'pupils could do better if they are allowed to take part in their own learning'.

One teacher commented: *'Now I am amazed to see even the slow learners give me valuable suggestions. When they realized that I appreciate their opinions, they were very happy and optimistic about their learning. Most of them like to be asked about their opinions. I never thought of this before, they want to express their views, but I should create a platform for their initiatives.'*

Another teacher sees the value of feedback in resolving problems: '*At the end of the whole research experience I was able to learn that consulting pupils to find out their views and responding to their needs is a key factor in understanding and solving classroom challenges.'*

Another teacher sees the value in teachers proactively using methods to solicit feedback: *'Now they do not only express their views, they also give me suggestions according to which I have tried to take the class. I am surprised to see even the slow learners giving me valuable suggestions when they noticed that their needs are catered for and appreciated their opinions, they were very happy. Most of them liked to be asked for their opinions. I had never thought of this before. They want to learn, they want to express their views, but the teacher should create the enabled situation.'*

Collectively, the teacher research studies have shown that purposeful enquiry within the school is a central component of problem solving. Most importantly, listening to and learning from pupils, despite the challenges this can present in some contexts, can have the most impact on learner interest and engagement and, ultimately, on learning outcomes.

“Now I am amazed to see even the slow learners give me valuable suggestions. When they realized that I appreciate their opinions, they were very happy and optimistic about their learning. Most of them like to be asked about their opinions. I never thought of this before, they want to express their views, but I should create a platform for their initiatives.”

Francis Y. Marah. (Teacher in Koinadugu)

Princess

HELPING PUPILS TO READ ALOUD

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SCHOOL
ANSARUL ISLAMIC JSS, MESSIMA

SUBJECT
ENGLISH LANGUAGE

SSO
GEORGE TUCKER

DISTRICT
BO

BACKGROUND

Even though I have spent some years in the classroom, I still face the problems of children's inability to read books aloud. As an active teacher it worried me so much that I began to ask myself how these pupils read and respond to questions during exams.

Actually, slow readers are common in most classes and it is difficult to help all of them individually. When I gave them passages to read, they could not respond properly and they always disappointed me. I noticed that the slow readers always pretended in class as if they are sick. They bow their heads while teaching is going on, and some even sleep. The fast readers are always active in class.

I really tried so many ways to overcome this situation. It was only the knowledge I gained from this research that helped me to explore and find solutions to change these situations.

THE STUDY

I chose a selected reading comprehension passage from the pupils' handbook.

At first, I focused on questions from the handbook to see how they would be tackled. From the findings, I realised that most of the pupils could not answer the exercise questions. From there I set up a questionnaire for completion by the pupils themselves, my colleague teachers and even myself.

I used a reflective journal throughout my research to think through questions for myself. I considered whether my teaching, pupils' previous learning, or the methods and materials for teaching were affecting their understanding. I interviewed colleagues and asked pupils questions about their learning and understanding.

Based on the results from my questions to colleagues and pupils, I introduced fun activities and storytelling and provided some sweets. Pupils then began to laugh and felt free in the class. I then changed how I taught and explained in our general language, which is Krio, and let them read after me. I divided words into syllables and introduced two- and three-letter sounds to help them understand difficult words. I involved the slow readers more in the exercise, and with this motivation they begin to participate in lessons.

RESULTS

In discussions with my colleagues, I learned that understanding pupils' perspectives makes it easier to pass the correct messages on to them and that we must be motivated in the classroom to make it suitable for learners. For example, telling stories, songs and, if possible, providing sweets for them, makes a difference. Being patient, calm and polite and accepting of their attitudes are important too.

In response to my questions in the classroom, some pupils said they were too shy to pronounce words, and that if they mispronounced them, their peers would laugh at them or the teacher would punish them. Some said I was harsh and that at times I would shout at them if they pronounced words wrongly. And some said that were not well prepared to understand and they don't have a reading habit because their parents only speak their mother tongue and not English. Others said they came from villages where some of their teachers did not speak English to them.

As a result of this learning, and the changes I introduced in response, my pupils are more engaged. Now, I do this exercise once every week with patience, calmness and politeness, and I find ways for my pupils to read out loud.

WHAT I LEARNED

Initially, the research was a difficult task but the workshops I attended changed my mind about this work.

I learned that politeness, calmness and patience will help you to achieve your dreams and that talking to the children and being very interactive is good for both myself and my pupils. Then, the involvement of peer teachers helped me to improve and led to pupils gaining more knowledge.

This research has changed my attitude. Now I use more child-centered teaching techniques (CCTT). I am more polite and calm with my pupils. The point about the readiness of pupils is important because it determines how you as teacher can achieve your aims and objectives in the classroom.

WHY MOST JSS1 PUPILS LACK INTEREST IN MY MATHEMATICS LESSONS

RESEARCHER
TIGIE-FORAY S. MARAH

SCHOOL
KURUBONLA SECONDARY SCHOOL

SUBJECT
MATHEMATICS

SSO
MUSA Y. TURAY

DISTRICT
KOINADUGU

Tigie-Foray

BACKGROUND

I have been in the teaching field for five years and I realised the impacts of being a teacher and love the teaching profession greatly. The lack of interest of most of the JSS1 pupils in my mathematics lessons has been a challenge for me and I wanted to change this by encouraging them to fully participate. I carried out an exploratory investigation to understand the causes and find solutions to the problems by using various perceptions of pupils, teachers, and others.

THE STUDY

I began by taking into account pupils' attitudes and identifying their prior knowledge by observing their activities in class. I also interviewed them and involved my colleague teachers in observing my classes. I tried to look at their efforts towards mathematics and I also observed how other pupils who participated were behaving with those learners who did not participate.

I developed a series of research questions for my study into getting pupils' full attention and participation in my lessons. These included:

- What are pupils' strengths in mathematics?
- Are pupils willing to learn mathematics?
- What is responsible for lack of participation?

In cycle 1, it was difficult to get feedback. I made my pupils 'fear free' and developed the concept of openness which helped me and the pupils to get the best out of every lesson. I wrote the interview questions on the blackboard and asked them to respond. I also instructed my colleague teacher to step in in my absence to conduct a focus group discussion with pupils. This was designed to get more information about the causes of the problems and how best to solve them.

Before this research, only 10 pupils were actively participating in my lessons. The activities involved in cycle 1 enabled more of my pupils to participate.

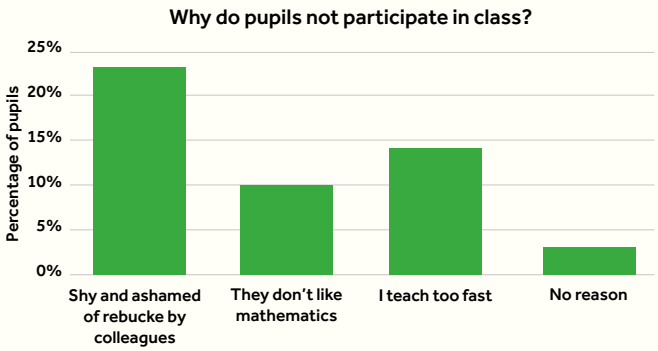
Pupils were now participating but the outcome of their work and answers were still boring and unsatisfactory, with a lack of mathematical understanding in the work and most pupils still struggling. I decided to talk with the principal about remedial classes and, luckily, there was a Parent Teachers Association (PTA) meeting the following week where I made it known to the parents and I was given green light. I continued for two weeks teaching similar topics, doing revision and, at times, conducting lessons on primary mathematics topics, getting them on track and taking them from the known to the unknown. During this remediation, I asked two boys and two girls to teach a topic one after the other, doing group work, presenting. I also gave them an assignment to be done at home. Progress was positive. Pupils started growing interest in mathematics and participated more often. "Teacher we have mathematics." they would say, even when it was not the period.

In cycle 2, the process was thoughtful but was not enough, and my self-evaluation along with the pupils could not be captured without the involvement of my colleague to observe my lessons. I embarked on group work, presentations, and remedial classes for those who were poorly prepared from their primary level.

However, I adhered to the feedback from my colleagues and put the recommendation from pupils into action. I measured their progress through strategies for assessing learning without writing (brainstorming, raise your hand, asking questions, think-pair-share, and oral evaluations).

RESULTS

Feedback from pupils during cycle 1 helped me to understand why pupils do not participate in class.



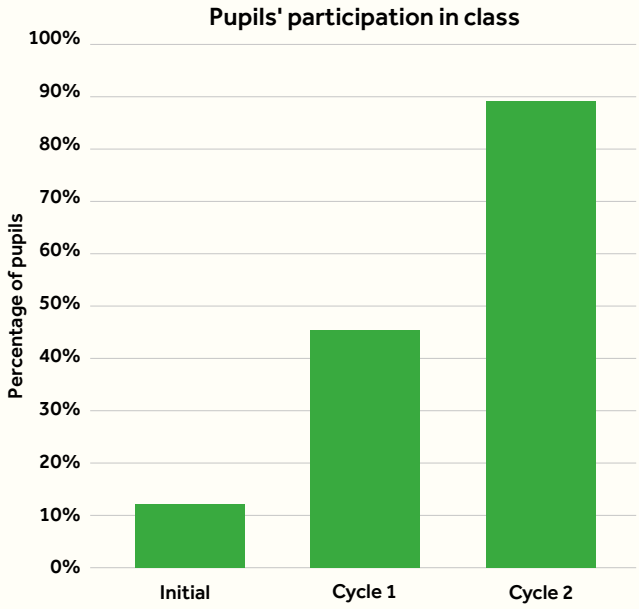
In cycle 1, I decided to be a bit slower in future lessons. There was a great improvement and what surprised me was the increased participation. Indeed, those, who participated even rebuked others for giving wrong answers. I also started grouping them into groups of 3, 4, 5 and 6, letting them choose some group leaders but choosing some myself to make sure that we involved those who did not participate. This helped stop them rebuking each other and seeing each other as rivals. With these two steps, I could see that those who had said they did not like mathematics started to participate. After cycle 1, my subsequent lessons were encouraging, and 37 pupils were actively participating.

In cycle 2, I conducted interviews with those who did and did not participate in my lessons. Out of 82 pupils, 72 mostly participated and 10 were not participating.

31 pupils said mathematics topics were strange. 10 pupils said they thought mathematics was for pupils in JSS3 and SSS. 19 pupils said they were shy and ashamed of being rebuked by other pupils for giving wrong answers.

Eight pupils said they did not like the subject of mathematics and 11 said they did not understand because I taught too fast. Three pupils gave no reason for not participating.

At the end of this stage, I met my target of increasing participation rates from 45% of the class to 89%, which was an awesome improvement for me. This indicated great improvement of pupils' participation in my lessons.



WHAT I LEARNED

During the course of my research, I used many techniques that helped me achieve success. Support from my peer teachers, pupils and school support officer helped me greatly.

The whole course of this research took me to another level of academic understanding and also helped me address classroom challenges, find solutions and be ready to take action on any other issues that might arise in the classroom. I have got very good feedback by letting the pupils do presentations and solve class work on the board, taking the role of the teacher. Remedial teaching and follow-up teaching make the pupils easier to teach, and participative.

This initiative taught me to be a more integrated peer teacher, make lessons interactive and find solutions to any occurring classroom challenges. The habit of noting down key points on my reflective journal is paramount after every lesson because it helps me reflect on what I have accomplished. Now I am a change agent, mobiliser and animator in the classroom ensuring child-centered teaching techniques.

I learned that:

- JSS1 comprises pupils from different schools and with mixed feelings about the subject mathematics.
- Pupils are not equipped with enough mathematics skills in primary schools.
- Pupils do not like to be mocked, rebuked or condemned by their peers or teachers but participation can be facilitated by group work and dedicating responsibilities.
- Teamwork and co-existence among staff delivers healthy schooling.

Hassan

ENCOURAGING ART PUPILS TO GROW INTEREST IN MATHEMATICS LESSONS

RESEARCHER
HASSAN ABUBAKARR BANGURA

SCHOOL
MONGO BENDUGU SECONDARY SCHOOL

SUBJECT
MATHEMATICS

SSO
MUSA Y. TURAY

DISTRICT
KOINADUGU

BACKGROUND

The community where I teach is rural. Most of the pupils lack interest in my lessons and they always disappointed me whenever I conducted tests, especially the art pupils. I came to realise that mathematics is one of the most difficult subjects. These reasons inspired me to do more research on the pupils lacking interest in my lessons.

THE STUDY

In my classroom research I tried to find answers to the following questions:

- Why are pupils not interested in mathematics lessons?
- How could I change their mindset to grow interest in mathematics lessons?
- What could I do to motivate pupils to grow interest in mathematics lessons?

I took a trial-and-error approach by targeting random groups and carried out group interviews across SS1 to SS3 to understand different perceptions of the study of mathematics.

Pupil achievement depends on their needs, interests, practice and the seriousness of their approach to mathematics, subject student related factors mathematics anxiety prior knowledge of pupils understanding, lack of pupil labour, parents' support, teacher related factors and environment factors.

I asked five out of 50 pupils who said that mathematics was only for clever people. They also said that they feared mathematics because of their pre-school teachers.

In cycle 1, I discussed the way forward in solving my art pupils' lack of interest in mathematics with the principal. In return, the principal convened the community teacher association (CTA) meeting. It was agreed that:

- Parents would visit the school on a regular basis and monitor their children's progress;
- Teachers would institute and monitor reading clubs;
- There would be remedial classes for those weak pupils to close the gaps.

I saw a lot of change in these collaborations with the pupils in terms of cooperation and participation in class but it was slow change. I tried several methods, like giving assignments and doing presentations in the class to try and change their negative perceptions towards mathematics.

In cycle 2, I tried something different. I repeated these stages with other lessons in the lessons plan manual.

In cycle 3, after several approaches, I realised that the team sport principle and a competitive structure could help me to motivate the attitudes and behaviour of my learners. I also had a consultative meeting with a colleague to help me.

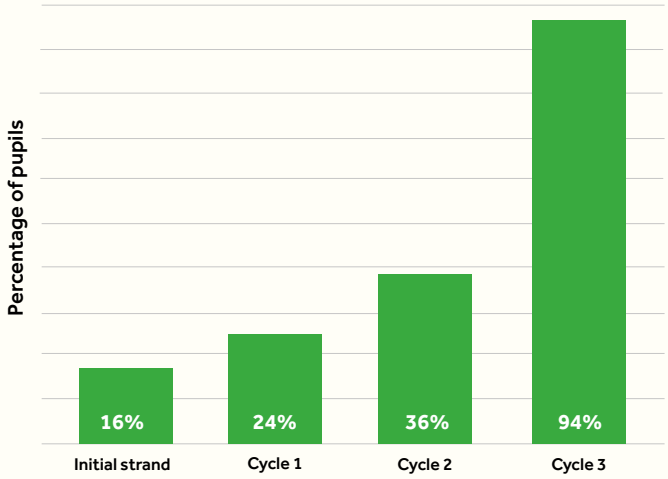
I introduced the 'Winning Teams' approach and tools in my lesson. The approach has already been used as after-school remedial support. It involves the assimilation and embedding of a core foundation knowledge through self and cooperative learning, games and teamwork.

RESULTS

I found out that there was a huge improvement in pupil participation in my lessons after I introduced these approaches.

Initial strand	Cycle 1	Cycle 2	Cycle 3
8	12	15	48

Art pupils' participation in maths over time



WHAT I LEARNED

There are a number of overlapping factors that determine the low performance of public school pupils, including their needs and interests, as well as pre-existing levels of knowledge and skills in use of mathematical concepts. Without pupils' interest in teaching and learning activities it's impossible for them to achieve knowledge about a subject. Parents' meaningful engagement to support pupils' learning at home is also a factor.

My experience gained from the study has helped me acquire more skills and adopt a simple method of asking questions in the class. This has created interactive sessions which encourage pupils to grow interest or have passion for the subject, and also stimulate their desire towards mathematical reality.

The teaching and learning process is a gradual process. If the teacher can clearly identify the aims and objectives of the lesson and share them with pupils, then learning will take place.

The action research experience has helped me, together with the principal, to establish continuing professional development in service training for teachers that are faced with challenging topics in other to build the competency teachers in teaching and learning environment.

Chanty

CREATING A WELCOMING LEARNING ENVIRONMENT

RESEARCHER
CHANTY M.L. KOROMA

SCHOOL
AHMADIYYA JSS, GEGBWEMA TUNKIA

SUBJECT
LANGUAGE ARTS

SSO
SHEKU COOMBER

DISTRICT
KENEMA

BACKGROUND

As a subject teacher for Language Arts in Junior Secondary School 3, I was facing some difficult challenges during my teaching periods. I felt somehow guilty of my very attitude towards the pupils.

Then I began to ask myself the following questions in order to understand the reasons as mentioned below:

1. Why did the majority of pupils leave when it was time for language arts lessons?
2. What was wrong with my methods of teaching?

I decided to find out more information by collecting data from the pupils, my colleague teachers and myself.

THE STUDY

I found it difficult because at first I knew nothing about teacher research, but my colleague teachers, pupils and self-reflection helped.

In cycle 1, I was able to look critically at using open-ended questionnaires as one of the tools which may be suitable to explore more information for this research.

In cycle 2, I changed my attitude in the classroom. I tried to refrain from being too strict. After that, I noticed that a gradual progress was taking place. I started exchanging views with my colleague teachers about being proactive.

In cycle 3, I became a severe critic of my own performance. Before this time, I was to blame because I used to humiliate the pupils in my class on many occasions. I frequently made them sweep the school compound, and I sometimes used corporal punishment. Now I assured them that they would no longer be humiliated or exposed to unnecessary punishments considering the fact that I am now the problem solver.

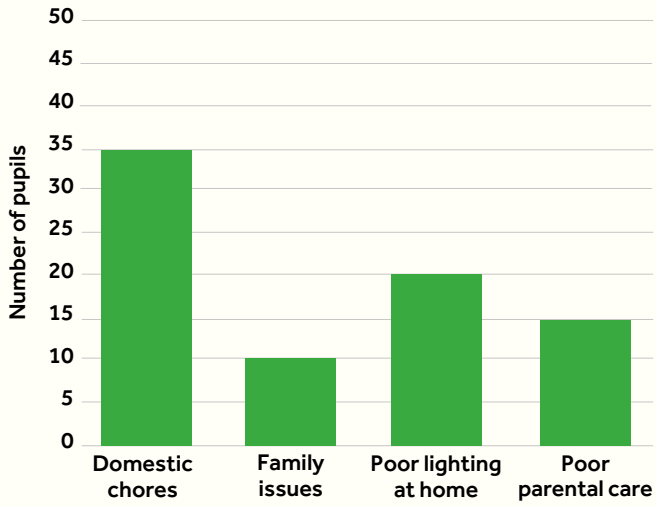
After going through the three main types of cycle stories that I used in this research, below is a diagram which shows junior secondary secondary school 3 pupils' views about why most of them failed to solve their language arts assignments.

RESULTS

My findings from my own reflections, colleague teachers and the pupils themselves, clearly show that almost all of the pupils in Junior Secondary 3 do not solve their language arts assignments due to a combination of factors that affect their ability to study independently and because of my own behaviour in the classroom.

I asked pupils to indicate what was the most serious difficulty relating to their home environment, selecting from four options. Out of 80 pupils in class, 35 pupils did not have time to study at home due to heavy domestic chores. 10 pupils represented those who have family and other social problems. Twenty pupils represented those who did not have light facility in the night to study at home and 15 pupils represented those who had poor parental care as shown below in bar chart below:

Reasons preventing studying at home



WHAT I LEARNED

After going through many challenges in this research journey, I have learned a lot of skills and gained a wealth of knowledge and improved behaviour. As a practising teacher who did not know anything about classroom observation and management, I was teaching like a dictator in the classroom. I frequently suppressed my pupils without going deep into their problems. This study pictures my behaviours not meeting the needs of the pupils at that time. A teacher should never be seen as a reservoir of knowledge but should interact positively with pupils.

Since the very start of this research journey, one of my strong pillars has been the school support officer/ teacher research mentor Mr Sheku Coomber, without whose mentorship this journey would have been very difficult to complete.

After changing my behaviour in the classroom, I noticed that I had an opportunity to build a foundation by creating a welcoming environment in which pupils felt comfortable to learn lesson contents. Thereafter, I gained some classroom management skills to make me fit to tackle any similar challenges as I wanted to reach the perfection of being a good teacher.

Furthermore, this research journey serves as a training academy for me, and also for would-be teachers. As a teacher you should always remember the 4 'P's which means: 'proper planning prevents problems'. This simply means that a teacher must always sit to plan learning activities before presentation of any lesson to pupils in class.

Through the help of this research, I have learned how to collect data in different ways using the tools and how to keep accurate records in the self-reflection diary. This is important to me because it helped me to correct the mistakes I made during my last lesson delivery.

In addition, this research enabled me to collaborate with other members of a group to achieve a common goal or to complete a given task in the most effective and efficient manner. I was fortunate enough to work with colleague teacher researchers from Kino, Kailahun, Tonkolili and Kenema Districts thereby promoting the spirit of teamwork during Leh Wi Lan training.

My school support officer, Mr Sheku Coomber, taught me about different ways of mentoring and encouraged me as a teacher researcher, showing that you need to be always courageous enough for any research challenge, or challenges, as the case may be. I am now confident enough to do any research work.

Last but not least, I learned this research work helped me to stand up in front of many personalities for presentations during teacher research training and I gained a lot of experience.

ENCOURAGING SSS2 PUPILS TO BE ATTENTIVE DURING MY LESSONS

RESEARCHER
BALLA KARGBO

SCHOOL
MONGO BENDUGU AGRICULTURAL SECONDARY SCHOOL

SUBJECT
ENGLISH LANGUAGE

SSO
MUSA Y.TURAY

DISTRICT
FALABA

Balla

BACKGROUND

I am an English teacher and I have been in the teaching field since 2008. I was unable to identify classroom problems until when I first attended the Teacher Research Workshop in Makeni around August, 2019. Through the workshop, I realised that there are ways that a teacher can explore to improve on the teaching and learning for pupils in school. After this first training, I started observing issues in class during my lessons. I started noticing a drop in attendance by the pupils. Before the drop in attendance, I was excited by their performance after marking the first test scripts. The low attendance worried me so much and inspired me to find out the causes of the problem in my lessons.

THE STUDY

I set myself some research questions to help me understand why my SSS2 pupils were not attending my class:

1. Am I cruel to pupils during my lessons?

2. Are my lessons boring to them?

I decided to meet colleague teachers to gather their own views about the challenges I am facing and their own advice about addressing the situation

I met with colleague teachers to discuss the issues of SSS2 pupils attendance. I realised that I was not the only teacher facing such a problem in the classroom. I later shared my own experience with them by telling them how I was worried about the problem.

Furthermore, I asked them to tell me some of the factors they thought might be responsible for pupils' behaviour but I was unable to get any positive response from them.

In cycle 2, I met with the pupils, arranged them into groups and asked them about being absent from class, their interest in my lessons and whether I treated them fairly.

They discussed in groups with the questions written on the chalk board as their guide. At the end of their deliberations, I realised that 45 pupils out of 60 were regular in my lessons. The remaining 15 pupils were still absent.

Eight out of the 15 said they were absent from my lessons because I always spoke to them in English and for them to respond to me in English was a great challenge due to their shyness. I then noted their own problem. There was one among them who said he had been overloaded with house chores by his guardian. The last six pupils were unable to give me a clear picture of their problem and this led me to explore more about the various problems stated above.

In cycle 2, I focused on those who were too shy to speak English. At first I assigned class activities like storytelling and self-description in English.

After some months they were able to speak in class and, feeling convinced, I introduced news reading during assembly. The first presentation was a bit difficult for them but the subsequent ones were unique and this really motivated them in coming to school.

In cycle 3, I noticed one of the pupils whose own problem was based at home and I engaged him. I helped him to find another place to stay and he was happier, which motivated him to focus on his schooling.

Finally, I met with the remaining six pupils who were engaged in drug abuse. I was unable to address their problem. I had to involve their parents and school administration. We have yet to find solutions to their problem.

RESULTS

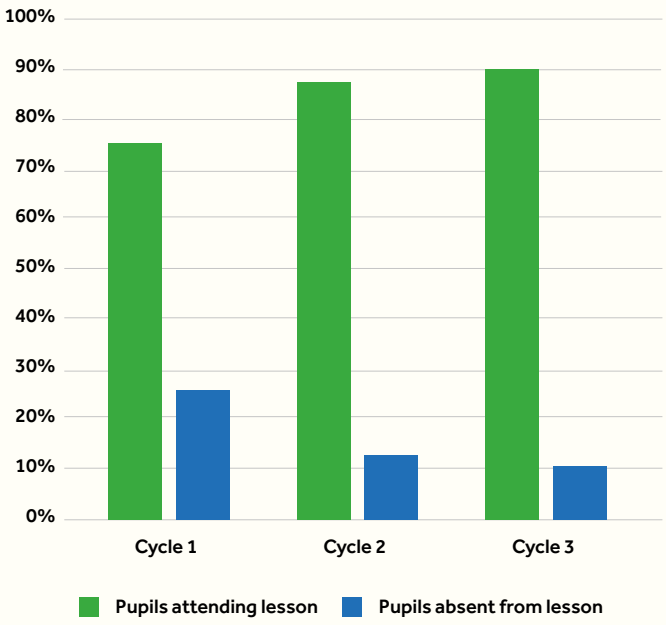
In cycle 1, I had a discussion with 10 out of 16 teachers in my school and I realised that they too were suffering from the same problem but they were unable to help me with any solutions.

In cycle 2, I contacted 60 pupils and through discussion with them I was able to identify 45 active pupils and 15 inactive pupils. Of the 15 inactive pupils who were not regular in my lessons, I was able to target the 8 who were nervous of speaking English publicly. Through my intervention they were eventually able to speak during the lessons. These pupils were enthusiastic in answering questions during my lessons and started to compete with their peers in class. At the end of cycle 2, I was able to get 53 pupils attending my lessons regularly.

By the end of cycle 3, I was able to get another 6 pupils to attend class regularly.

Below is a chart showing how pupils moved from absenteeism to attendance.

How pupils moved from absenteeism to attendance in my lessons



WHAT I LEARNED

It is clear that you will only know the problems of pupils when you monitor them during lessons. Through this teacher research programme I am now familiar with the classroom problems and how to handle them. I used to think that those pupils failing to attend my lessons were deliberately being difficult. It was not until I started to come close to them that I realised that there were issues that a teacher can help pupils to curb so as to foster education.

I have got wonderful feedback through asking pupils to explain their problems and some will even help you to solve their own problem. When I came closer to them to understand issues that really affected them, I was able to address some of those issues and this eventually increased class attendance.

Though I was having a lot of challenges with colleague teachers, my SSO, and even the pupils, they were able to help me complete my research.

MOTIVATING PUPILS TO DO THEIR MATHEMATICS HOMEWORK

RESEARCHER
NELSON TAMBA JIMISSA

SCHOOL
ANSARUL ISLAMIC GIRLS SSS, KOIDU

SUBJECT
MATHEMATICS

SSO
HANNAH THOMAS

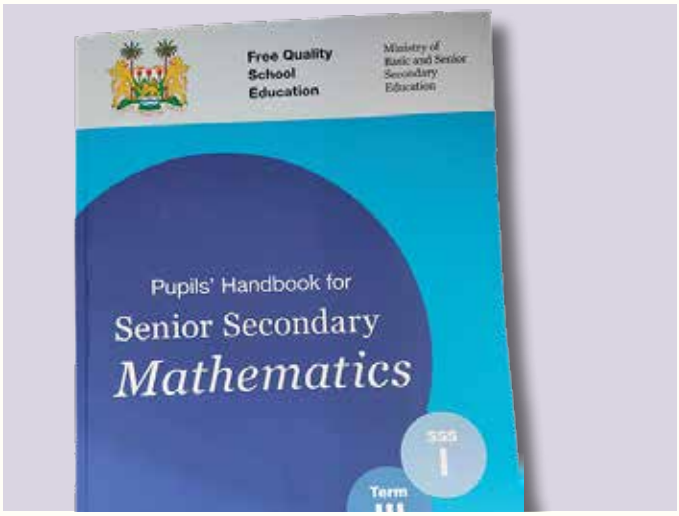
DISTRICT
KONO

Nelson

BACKGROUND

Mathematics homework was challenging for most of my Form V pupils. At the end of each lesson, I gave my pupils homework, using the lesson plan manual for them to solve problems after school. Checking the homework in my next lesson with them, I noticed that the majority of my pupils could not solve the homework problems from the previous lesson.

I was not happy with this, since I could not identify the previous knowledge of the pupils through the homework. I decided to involve colleague teachers, the school principal and the pupils themselves to help identify reasons why pupils could not solve the homework problems and to come up with preferred solutions to help solve this.



THE STUDY

To explore further, I developed the following research questions to investigate why many of my Form V pupils could not attempt to solve their mathematics homework:

1. Why are so many of my Form V pupils unable to do their mathematics homework?

2. What do my Form V pupils think about doing mathematics homework?

3. What exactly can I do to help my Form V pupils do their mathematics homework?

I also prepared four different sets of questionnaires which I administered to the pupils, parents, colleague teachers and principal. These questionnaires were explained to the respondents and included questions around what pupils like about maths, whether pupils have time to do homework and whether teachers give their pupils homework.

I kept a reflective journal at each stage of the data collection. Thirty pupils were selected using random sampling across six Form V classes in my school. Parents of all 30 pupils were contacted to serve as respondents but only six took part in the study. Six teachers were formally requested to participate in the study but only four participated. Finally, my school principal consented to participate in the study. In all, out of the 397 targeted population, 41 served as sample respondents in the study.

In a bid to combat the situation regarding homework, I introduced a mathematics assignment book that tracked those that submitted their assignment. I then awarded those that submitted their assignments with a 30% grade and I prevailed on the others to submit theirs by telling them the 30% was part of their continuous assignments.

I asked questions to 30 pupils before and again after I introduced the assignment tracking book. In both cases, each pupil's response was assigned to one of four categories in the tables below.

RESULTS

Before introducing the assignment tracking book:

What do you think about doing mathematics homework?	No. of pupils
Not required for my future career	5
Difficult	15
Boring	8
It is good to do because it is a core subject	2
TOTAL	30

From the table, it is clear that the majority (28 pupils) had not had negative perceptions of doing mathematics homework.

The introduction of the assignment tracker book helped most of the pupils to start doing their mathematics homework.

I interviewed the pupils again after introducing this mechanism and more of them had a positive attitude to mathematics homework than before.

After introducing the assignment tracking book

Why do you not do your homework?	No. of pupils
Difficult to do with no one to help	3
Too much domestic work at home	7
No conducive environment	8
It is good to do because it is a core subject	12
TOTAL	30

These responses also highlighted the different challenging reasons for pupils' failure to do their mathematics homework.

Four of the six parents I interviewed said their children did not have to do their mathematics homework.

Findings from interviews with four of my colleague teachers indicated they also had problems with pupils doing their mathematics homework.

WHAT I LEARNED

I learned that, though teachers endeavour to give mathematics homework to pupils, many pupils do not do it due to various other life commitments and home situations that leave them with little or no time to do their homework.

In future, I will invite the parents or guardians and pupils to make them understand the importance of homework and the need for pupils to be supported and encouraged to do homework. I will give and monitor more classwork so that pupils can complete what they would do as homework on the spot.

I faced some challenges which acted as limitations on the study. These included insufficient resources to undertake the study and the limited scope of the study. Despite these challenges, I was able to reach this far with collaboration from colleague teachers and my School Support Officer (SSO). The work was enriching because of this collaboration.

UNDERSTANDING WHY PUPILS LACK INTEREST IN MATHEMATICS

RESEARCHER
ALPHA BARRIE

SCHOOL
ALIE DAWSON WURIE SECONDARY SCHOOL – LUNSAR TOWN

SUBJECT
MATHEMATICS

SSO
ALPHA BARRIE

DISTRICT
PORT LOKO

Alpha

BACKGROUND

Pupils in my school, especially the arts classes, lacked interest in maths lessons and didn't participate much in my lessons. Most of the time they were silent and always listened to me whenever I gave them class work. They would do the task without understanding and I was unhappy about this. I reflected and started to think deeply about my class. I began looking for some answers to questions as to why there was a lack of interest among some pupils.

THE STUDY

I began the whole study by looking for some answers to questions based on the following:

- Why the lack of interest among some pupils?
- How can I get my pupils interested and involved in my maths lesson?

My sources of evidence were:

- Self-reflection and self-evaluation
- Getting pupils feedback through one-on-one conversations with arts and science pupils
- Questionnaires

My evidence was shared by interview with arts pupils and with science pupils.

In cycle 1, I interviewed my pupils to discover their difficulties.

In the next cycle I acted on their feedback by introducing games in the lesson to help them identify areas of plane shapes. With this, I divided the class into groups of five and I shared some card boards for them to identify different shapes.

From this activity I prepared some questionnaires based on the following:

- Do I make my learning instructions clear?
- Do I make any provision for participation and practice in pairs?
- Do my pupils understand the lesson and have interest in it?
- Do they have enough learning materials?
- Is there enough space for grouping activities?

RESULTS

Feedback on why pupils lacked interest in maths

Feedback	Male (%)	Female (%)
Afraid and have difficulty with the subject	47	53
Poor foundation	35	65
Not compulsory and have no need for it	60	40
Poor teaching methods	18	82
No motivation	6	3

From the analysis drawn above, it was found that the majority of my female pupils thought that poor teaching methods, with regards to the skills and concept, were one of the factors responsible for their poor foundation in the subject leading to lack of motivation and interest.

Feedback on cycle 2 from pupils was based on the several questions including: Do I make learning instructions clear?; Do I make provision for participation and practice in pairs?; and Do you understand the lesson and are you interested in it?; Most pupils (over 50%) said I make learning instructions clear; I create provision for participation in pairs; and I help pupils understand and be interested in the lesson. Some pupils who disagreed gave reasons including: The materials are insufficient and there is not enough space in overcrowded classroom for them to participate.

WHAT I LEARNED

This study has helped me to understand the problems faced by pupils in the classroom and how they can be managed. I learned that creating provision for pupils to participate and interact in groups will encourage them to understand better, although classrooms are congested and there is not always enough space for pupils to actively get involved.

Getting pupils' feedback is a key component that creates and enhances pupils' participation and interaction to enhance learning.

Lamin

FINDING OUT PUPIL LIKES AND DISLIKES IN MATHEMATICS LESSONS

RESEARCHER
LAMIN M SESAY

SCHOOL
TOMLINSON HIGH SCHOOL

SUBJECT
MATHEMATICS

SSO
YUSUF KANU

DISTRICT
PORT LOKO

BACKGROUND

As teacher in a Junior Secondary School (JSS) level in a rural setting, one of my main aims is for every pupil to feel comfortable in my class. Therefore, I always try new techniques to promote inclusion and a high level of interaction. However, in spite of all this effort, it seems my pupils in JSS3 do not participate actively in my maths lessons and are always slow in solving maths problems/ exercises. I decided to find out the reasons why.

THE STUDY

After a few weeks of lessons, I started to think deeply about my class. I began looking for some answers to questions like these:

- How can I get my pupils to participate actively in my maths lessons?
- How can I get them to solve maths problems?
- How can I get all the pupils to join in the activities?
- How well did the pupils learn the math skills?

After asking myself all these questions, I got more answers by taking feedback from my pupils. I did this research these in four (4) cycles

I asked my pupils two open ended questions like these:

- Why are you not participating actively in my maths lessons?
- Why are you always slow to solve maths problems?

From their responses, I did the following:

In cycle 1, I started my lesson with warm up games, giving examples in real life and encouraging my pupils to give more examples. I asked my pupils to give feedback about the class but they did not give it.

Based on feedback that 45 of my pupils liked group work, in cycle 2 I divided my class into groups in order to promote inclusion and to ensure that my pupils had the chance to participate and learn from each other and not just the teacher. I made fast learners group leaders and instructed them individually to help slow learners in their own groups. I also informed them that at the end of every group activity, every group would send a group member to present their work on behalf of their group.

I started cycle 3 with some new ideas based on the collected data. It seemed that time given to activities was not sufficient so I increased the time to control the misbehaviour of some group members during presentation. I informed them each group would be awarded 100% at the start of each class but would lose 5% for any misbehaviour from any group member (such as shouting). The group with the highest percentage at the end of the lesson would be the winner. And I also mixed fast learners and slow learners.

In cycle 4, I adapted my idea again so that slow learners became group leaders. In addition, I formed groups not based on friendship. I announced there would be no individual success or failure as results would be judged based on group effort.

RESULTS

Out of 80 pupils, the most common reasons for lack of participation in maths class were:

1. Do not have someone to work with;

2. Tired or weak at maths;

3. Not given the opportunity to participate;

4. Maths is difficult.

I noticed that my pupils were enjoying the class. I could feel that they liked the learning-by-doing approach and being fully involved in the lessons. However, my pupils would not give me feedback because they felt shy and, also, afraid.

Eventually they did respond to my request for feedback. I added some statements that focused on their "likes and dislikes" in a maths lesson and found out that more than half of my class liked group work.

Pupils' perceptions of maths			
Like group work	Like opportunities for participation	Dislike to do maths	Indifferent
45	15	10	10

From the analysis drawn above, it was found that the majority of my female pupils thought that poor teaching methods, with regards to the skills and concept, were one of the factors responsible for their poor foundation in the subject leading to lack of motivation and interest.

Feedback on cycle 2 from pupils was based on several questions including: Do I make learning instructions clear? Do I make provision for participation and practice in pairs? and Do you understand the lesson and are you interested in it? Most pupils (over 50%) said I make learning instruction clear; I create provision for participation in pairs; and I help pupils understand and be interested in the lesson. Some pupils who disagreed gave reasons including: The materials are insufficient and there is not enough space in overcrowded classroom for them to participate.

Group work in cycle 2 worked a little bit but not significantly. I realised that change is slow especially when working with a large number of pupils and slow learners and it was not possible to get everyone to join in with the activities. I needed to collect data continuously. During my study I used a few tools to collect data. I noted every little change in my notebook on a regular basis. I also collected feedback from my colleague. After cycle 2, I found:

1. Progress was positive but inadequate;

2. The fast learners are not as supportive to slow learners;

3. Sometimes all the group members are weak;

4. Sometimes some group members misbehave while other group members are presenting.

The changes I made during cycle 3 sounded pretty good but created new problems too. I found during cycle 3 that the changes:

1. Were not working for every group;

2. Increased the progress rate better than cycle 2;

3. Meant fast learners started to care for slow learners.

But the last finding was not fully established. That is why, after few days, improvement was decreasing so I brought in something new in for cycle 4 and I found:

1. The improvement rate was better than before;

2. Slow learners were now doing more activities than in cycle 3;

3. Participation, interaction and inclusion increased more than before;

4. It was hard to combine fast learners and slow learners based on friendship as they start gossiping when they were working together.

WHAT I LEARNED

I have learned a lot from this study. It helped me to understand the situation and take a deep look at every situation. It helped me also to realise that some classroom problems can only be solved when working collaboratively with pupils and colleagues. It has also helped me to know that, even with good teaching techniques, you cannot enhance active participation and inclusion in class without knowing pupils' likes and dislikes. This study has helped me to know the following:

- As a teacher, you should learn to think deeply about your class.
- Some pupils do not participate in lessons because they are not given the opportunity to do so.
- It is not always possible to get all pupils to join in the activities when working with a large number of pupils.
- Without proper monitoring it is not possible to bring the best out of your pupils, even with good techniques.
- Change is a slow process especially when working with a large number of pupils and slow learners.
- Sometimes pupils learned from each other and not just the teacher.
- Classroom problems can be solved when you work collaboratively with colleagues and pupils.

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Impere JSS
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Islamic Call Society JSS
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TEACHERS AS CHANGE AGENTS:

CLASSROOM RESEARCH IN SIERRA LEONE SECONDARY SCHOOLS

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