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MINISTRY OF EDUCATION, YOUTH AND SPORT

ACTION RESEARCH TECHNIQUE:

DO-IT-YOURSELF GUIDE

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Ministry of Education, Youth and Sport

Action Research Technique:

Do-It-Yourself Guide

Contents

Acknowledgment

Action Research Technique is a guidebook for national and sub-national educational staffs, including Provincial Office of Education (POE), District Office of Education (DoE), Administration of municipality, district, and khan, school principals, teachers, students, university students, and others who are interested in doing action research. They can use this book to strengthen their capacity in plaining, decision, management, individual and institutional capacity development based on evidence to bring with positive changes. This book is written for educational staffs and those who wish to solve problems and want to bring positive changes and development to the workplace. This book provides an easy explanation on data collection, data analysis, and data interpretation through obvious and real-life examples.

Ministry of Education, Youth and Sport (MoEYS) strongly hopes that this book will make readers become interested and like doing research. MoEYS would like to give a profound thanks to technical team, relevant stakeholders, and development partners for spending valuable time and physical, mental, and intellectual strength to develop this book.

MoEYS strongly hopes that this book will become a vital resource for educational staffs, including school principals, teachers, students, and university students. This book will encourage and promote research culture, and it helps them to use research findings as evidence to strengthen practices to bring with positive individual and institutional changes.

Phnom Penh, December _____22_____, 2020

Minister of the Ministry of Education, Youth and Sport

Dr. HANG CHUON NARON

Introduction

Know your DIY guide to action research

Are you a student who wants to bring about positive change in your school? Or perhaps you are a teacher and you want to make improvements in your classroom practice? Maybe you are a school director and you want to find out why your students are dropping out and not completing their education. You may even be a director in a Provincial Office of Education, Youth and Sport (POE), and you need to find reliable evidence to support your decision-making, educational strategic plan or annual operational plan in order to develop the education system.

We may often think about how things could be done better in our working lives or how we could make changes that would improve our school, workplace or organisation, but we just don't know how to go about it. If that is the case, then this book will be just the book for you. This book has been written for staffs of PoE and DoE, school principals, teachers, students and teacher trainers who wish to find positive solutions to issues in their working lives, and to bring about positive change through the action research process.
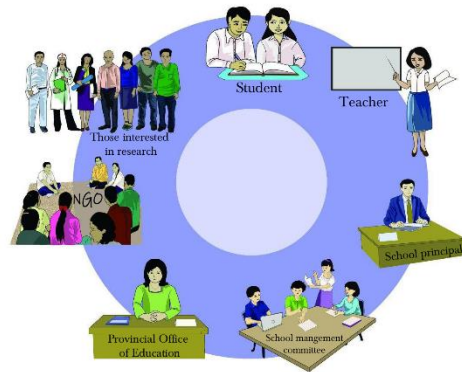
Structure of the book

This book consists of four chapters. In Chapter 1, the book focuses on definitions of action research, its essential components and what it all means. In Chapter 2, there is a clear explanation of how to conduct an action research project from start to finish. The collection, recording and analysis of data and the importance of reflexivity in action research are also covered in this chapter. In Chapter 3, the book explains the important issue of ethical behaviour in research (the five principles of ethics). In addition, this chapter looks at research with children and the importance of

observing safeguarding and child protection practices at all times. Chapter 4 summarises what has been learned from the book and some additional information on Social Exclusion and Gender Analysis (SEGA), followed by sample templates and further helpful information which could be of use while undertaking an action research project.

Purpose of the book

This book aims to help people understand the process of action research in a step-by-step manner to provide novice researchers with the confidence to undertake their own action research projects. It also aims to highlight the fact that carrying out action research is not limited only to academic people and university scholars. The handbook is written in an easy-to-understand and reader-friendly manner. The book writers hold the strong belief that every reader is capable of understanding the basic concepts of action research. This guide offers clear guidance and practical examples, taken from real situations, to ensure that readers can follow simple steps in order to carry out their own small-scale research study in order to implement positive change. Moreover, the book will also be useful in enhancing the capacity of those working in Educational Leadership and Management roles to prepare evidence-based strategic and operational plans as well as decision-making.

It is important for MoEYS's staffs to prepare planning and policy which is firmly rooted in robust evidence. Action research is an excellent method of finding this evidence as it promotes participation and collaboration in the process and uses the voices of those in the community who often feel excluded from the decision-making processes at government level. The use of action research will build a lasting capacity to undertake research whenever strong evidence is needed for policy and planning, as well as for institutional development.

What is action research?

1.1 Definition
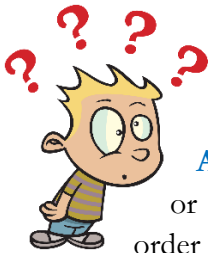
Action research can mean many things to many people. However, in the context of this handbook, the following definition is used:

Action research is a small-scale study for any individuals, groups or organisations wishing to explore workplace issues in-depth in order to make positive changes based on research evidence.

1.2 Essential components

While there may be a number of definitions, a few essential components are always present in action research.

- It is always a cycle of 'plan, act, and reflect' which are constantly repeated.
- There is a clear focus on action for positive change.
- It is usually small-scale, personal and always democratic and participatory.
- It is systematic, disciplined, ethical and rigorous.
- It is conditional upon honest and transparent self-reflection.
- It is 'work in progress' rather than definitive.
- It actively encourages open-mindedness.
- It is collaborative as it is composed of people talking and working with others in empowering relationships.

The cyclical process of action research always follows a clear pattern which starts with identifying the issue to be researched (Fig. 1). This is followed by:

1. **Planning:** deciding on the participants, data collection methods, scope and timescale

2. **Acting:** collecting data through interviews and focus groups, then recording and analysing the data

3. **Reflecting:** did you carry out the research following all ethical guidelines and with honesty and transparency? Do you have the evidence to support positive change? Has the research question been answered effectively? Do you need to carry out another cycle of research?

Reflect

Does your data support positive change?

Plan

What will you do? Who will participate? When will you start? Where will you meet?.....

Act and Observe

Implementation and field work; review data and analyse
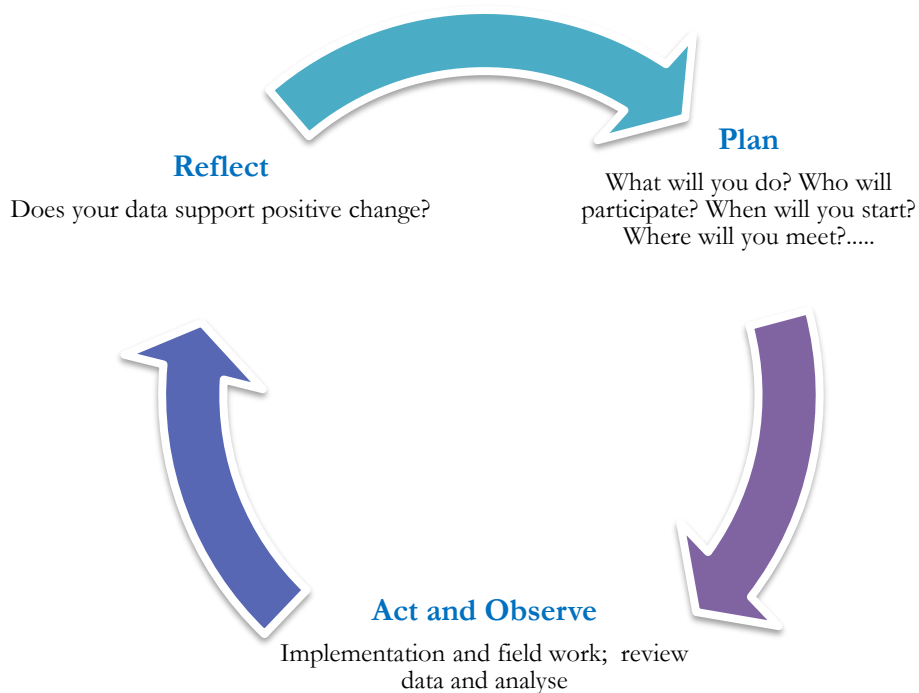
Fig 1. Illustration of the process of action research cycle

1.3 Objectives of action research

The objectives of conducting action research are consistent. They are to identify issues which happen in the working lives of individuals, groups or organisations; to encourage and empower people to conduct research with confidence and to gather evidence collaboratively in order to bring about positive change.

1.4 The scope of action research

The scope of an action research project basically means the areas that will be covered and the number of participants needed. Obviously, this will depend on the issues under investigation. For example, a teacher who is conducting research in his/her classroom may just use a few students to join in the research. In this case the research will be conducted over a short period of time (maybe a few weeks) and will take place at the school where the teacher works.

In the case of a school director wishing to find out why, for example, reading levels in Grade 6 are very low, the research will take longer as the school director will need to interview a wider variety of participants (teachers, students, parents). Consequently, the process will take maybe six to eight weeks and the location will vary (the school and wherever parents choose to meet with the director.)

In the case of a POE official who is researching school drop-out rates or school exclusion, the action research study is likely to take longer as there will be a much wider variety of participants (for example, school directors, teachers, students, parents, community members, etc.) In this case, the action research project will have a more significant timeframe (possibly 2 – 3 months) and the research locations will be spread over a wider area (travelling to districts to interview participants in schools and communities.)

School directors and DOE/POE officers will need evidence from their action research studies to incorporate in their education strategic plans (ESP) and their annual operating plans (AOP). In this case, it is important to plan action research projects in good time so that the results are available for inclusion in the planning.

Preparing a timeline for the research project is a helpful way of monitoring your progress and ensuring that deadlines can be met (Table 1).

Table 1. Sample timeline for small-scale action research project

Week	Tasks to be carried out
Week 1	- Identify the issues - Research question developed - Participants identified and informed consent obtained (see Chapter 3) - Start document review

Week 2	- Decide methods of data collection and recording: Interviews (group/individual), focus groups, questionnaire - Draw up a schedule and location for interviews/ focus group sessions - Develop a series of sub-questions for use in interview/ focus group sessions (see Chapter 2)
Week 3	- Share your schedule with participants and agree on times and places - Start interviews, focus group sessions; record information through voice recording (which will need transcribing) or noting key points
Week 4	- Complete your interviews, focus group sessions - Start collating & organising your data - Start analysis and see if any major themes are arising from the data
Week 5	- Focus on analysis: read and re-read data to look for themes and categories - Ask yourself 'what is the data telling me?' - Has your research question been answered? Draw conclusions and make recommendations. - Consider how you will share the analysed data – will it lead to positive change?
Week 6	- For those who need to include research evidence in ESP/AOP, ensure data analysis, conclusions and recommendations are completed before the planning has to be submitted. What is your final deadline?

How to conduct action research

2.1 Identifying the issue

Action research always starts with a problem which you want to solve or a situation that you want to improve. Identifying the issue will depend on the action researcher. For example, a classroom teacher may want to identify issues in student learning; a school director may be concerned with improving the quality of technical meetings in schools; a sub-national administrator may identify issues such as the need to increase enrollment of pre-school children at community kindergartens.

Sometimes a number of problems are identified so it may be difficult to choose just one for the action research study. In this case, if the researcher needs help in prioritising an issue, then the following steps can be followed:

Brainstorm issues with your work colleagues
1 Ask some of your work colleagues to brainstorm the issues with you

Vote on which issues should be prioritized
2 Be democratic and fair – allow everyone to have a voice

Make a decision on which issue should be researched
3 Prioritize the most important issue
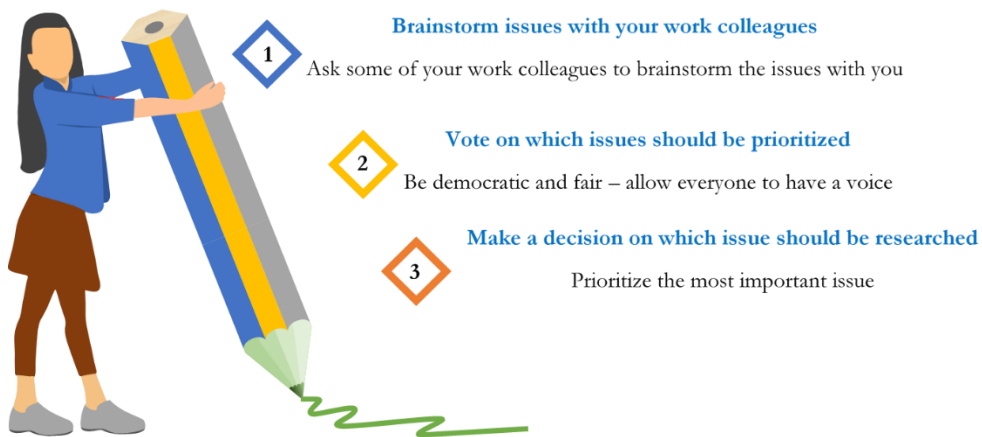
Note: Social exclusion and gender analysis (SEGA)

SEGA is a specific aspect of action research which focuses on excluded groups such as minorities, disabled children, indigenous people, LGBTQ people (Lesbian, Gay, Bisexual, Transgender, and Queer), those living with HIV, etc. In these cases, the researcher will focus their action research question within this specific area (see Annex 1).

2.2 Developing the research question

After the issue to be researched has been identified, it is a good idea to develop a research question. This question should be written so that it clarifies the issue and guides the research. A good research question should be clear, focused on a relatively small area and very specific. Good research questions can be developed by starting with the word '**How…**' then including the change you are seeking in the question. For example, '*How can we encourage students to remain in school after Grade 6?*' The question starts with 'how' and the focus is on students staying in school, which is the change you are trying to achieve. Questions should be positive rather than negative.

For example, a question such as 'why are my friends so lazy?' will not encourage good collaboration and participation, and does not guide a good action research project. On the other hand, a question such as '*how can I support my teachers to improve their classroom performance?*' is much more positive and offers a clear guide to the path your research will follow. Table 2 shows an example of clear and specific research questions, and some non-specific research questions:

Table 2. Examples of specific and unclear research questions

Issue	Example of an unclear question	Example of a specific question
A teacher is producing poor lesson planning in Grade 3 mathematics so children are not learning effectively	How can I be a better Mathematics teacher?	How can I improve my lesson planning so that my Grade 3 students can develop good understanding and long-term progress in mathematics?
A grade nine student has poor reading skills in Khmer language.	How can I become a good reader?	How can I identify the factors which affect my reading in Khmer language so that I can become a fluent reader?
A school director has poor collaboration with teachers, staff and community in the area of school development.	How can I become a good school director?	How can we improve support and collaboration from teachers, staff and community in school development?

A DOE officer has a problem with preparing the AOP at district level.	How do I develop a good AOP?	How can I improve participation and accountability in the development of the AOP for my DOE?

2.3 Finding your co-researchers

In action research, all the participants involved work together to share their knowledge. However, there is a research leader (or leaders) who will play a key role in developing the guiding questions, facilitating the research process and who will be responsible for preparing the report, presentation or sharing the outcomes of the research project.

The participants who should be involved in the research are those who are interested in the issue being researched, those who may be affected by the issue and those who have the knowledge needed to respond to the research question, for example, students, teachers, parents, members of the school committee, district education officers, etc. The best participant researchers are those who will be committed to the research project and who are very interested in helping the research leader(s) to answer the research question in order to implement positive change.

The number of participants needed for an action research project depends on the scope of the study. A research leader would generally choose between three and ten participants to support the research project. The leader can also assign specific roles to the participants, if necessary (giving help in conducting interviews, transcribing interviews, identifying key points in focus group discussions, preparing the presentation of research outcomes). However, a teacher conducting a personal action research project to improve his/her practice in the classroom may just work with a colleague and/or some students to help solve the research question. On the other hand, a member of a ministry department conducting a larger scale study may choose representatives from a variety of different sub-national offices, in which case the number of participants would be larger.

2.4 Data collection

Data is not just facts and figures. Data can take many different forms. All forms of data can be collected in a variety of ways, but the following are the most frequently used:

a. Interviews

Interviews are easy to conduct as they involve the simple act of talking to your participants. Interviews can be one-to-one, paired interviews or group interviews, where you interview a number of people at the same time. However, to collect data effectively, the researcher has to develop interview questions, or guiding questions, which are designed to encourage participants to give as much information as possible. Open-ended questions (questions which do not have yes/no answers) are used in this instance as they allow participants to share their thoughts and opinions freely. Careful thought must be given to the development of these interview questions as they must support the main research question (Table 3a, b).

Types of data
- Opinion
- Statistics
- Observations
- Information
- Feelings
- Facts
- Images
- Narrative
- Sounds
- Thoughts
- Behaviours
- Dialogue

Data is NOT just facts and figures!
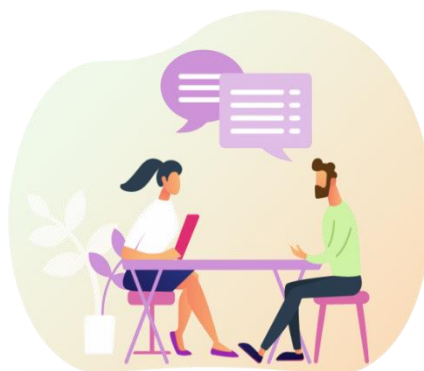
Table 3a. Interview questions (sub-questions) supporting the main research question–School Director/DOE

Main research question	Participant	Sub-questions to ask in interview, which support main research question
How can we encourage students to remain in school after Grade 6?	Students	1. Can you tell me something about your school experience?
		2. What are the best things about coming to school?
		3. Is there anything you don't particularly like at school?
		4. Do you find any of the subjects difficult? Can you tell me why?

		5. Have you thought about what you want to do when you leave school?
		6. Is there anything the school can do to improve your experience in the classroom?
	Parents	7. How do you feel about your child's education?
		8. Do you believe that a good education is important for your child?
		9. How important do you think it is for your child to complete basic education?
		10. Is there anything the school can do to improve your child's experience in the classroom?
		11. Would you like to see your child get a good job in the future?

Table 3b. Interview questions (sub-questions) supporting the main research question–POE

Main Research question	Participants	Sub-questions to ask in interviews which support main research question
How can we apply the POE Inspection Office budget more effectively for school inspections when it has been reduced by 25%?	Inspection officers	1. How many schools are you responsible for?
		2. Do you have the authority to choose which schools you visit and how many times?
		3. Do you try and visit all the schools all the time?
		4. Do you always visit each school with your whole team?
		5. Are all the schools on your inspection list performing well?

		6. Do you visit any schools that are under-performing?
		7. How important is it that you visit high-performing schools regularly?
		8. How important is it that you visit under-performing schools regularly?
		9. Are you able to prioritise which schools you visit?
	School directors	10. Do you prepare for inspections or does the inspection team visit unannounced?
		11. Do you think regular visits by the inspection team have any positive effects on your school performance?
		12. Do you think regular visits by the inspection team have any negative effects on your school performance?
		13. How do your teachers feel about the inspection visits?
		14. Do you think visits from the inspection team significantly improve your teachers' performance?
		15. Are the inspections disruptive to your everyday routines?

		16. Have you ever collaborated with other local schools to improve your school's performance?

Interview questions should always be neutral so that the researcher can avoid asking 'leading questions' which may influence the participants. The researcher needs the data collected to be the honest voice and opinions of the participants, rather than responses that are given to agree with the researcher.

Where interviewed participants are in remote locations and it is difficult to organise face-to-face interviews, then phone interviews are a practical alternative. Interviews can also take place through internet platforms such as Zoom, Google Meet, and Skype if there is reasonable network connectivity.

b. Focus groups

A focus group is very similar to a group conversation where the researcher asks questions which prompt comments, ideas and opinions from the group of participants. However, a focus group must keep the conversation focused on the issue under discussion. The research leader can ensure this happens by developing guiding questions for the group to respond to. A focus group differs from a group interview as it is less formal and questions are broader.

Focus group guidelines: The lead researcher invites the participants to join the focus group so a date, time and location should be agreed. It is important to have a group that represents the people who are affected by the issue being researched (Table 4a, b).

The focus group starts with the research leader sharing the reason for the meeting and explaining that everyone has a voice and should share their ideas freely. The research leader then asks the first question (around five or six questions should be prepared as part of the research planning and enough time should be given to thoroughly discuss each question):

Table 4a. Example of focus group questions–school level

Research question	Participants	Examples of questions to be discussed by focus group
How can parents be encouraged to enrol their young children in the community kindergarten?	o Community members o Parents o ECE teachers o Primary teachers o School directors	1. How do you feel about children starting at the community kindergarten from the age of 3 or 4?
		2. Do you know what children actually do when they go to a community kindergarten?
		3. Do you think the teachers who work with these young children need to be qualified?
		4. Why do you think some parents might not want their child to go to the kindergarten?
		5. What advantages might children gain from attending the community kindergarten in the long-term?

Table 4b. Example of focus group questions–POE

Research question	Participants	Examples of questions to be discussed by focus group
How can we improve participation and accountability in the development of the yearly AOP?	Representatives from the office of: Early Childhood Education, Primary Education, Secondary Education,	1. Do you feel you currently have a voice in decision-making at the POE?
		2. Do you feel you have a voice within your own offices?
		3. Do you ever collaborate in any way with other offices?
		4. Do you currently participate in any way with the offices of the PAOP?

	Non-formal Education, and Planning	5. Whose responsibility do you think it is to prepare the PAOP?
		6. Do you feel that the quality of the PAOP could be improved through collaboration of the sub-sectors?

These questions are designed to prompt active discussion among the group and to seek everyone's thoughts and opinions. However, the researcher must ensure that the guiding questions are neutral and do not influence the opinions of the participants. The research leader (or a participant researcher) can make notes of the main points and share with the other participants to make sure that the important points of the discussion have been captured. These notes then become part of your data collection.

c. Observations

Sometimes data can be collected just through observation. For example, if a school director wishes to improve reading levels in a school, he or she can go to different classrooms and observe different teaching methods, noting down what is observed in terms of children's engagement, attitudes to the activities, which teaching methods the teacher is using, continuity through different grades, etc. Photos can also be used as evidence in some cases but must be supported by a clear explanation of what is happening in the photo.

d. Document review

It is important to find out if any data already exists in your area of research. This helps to set your own research in context and also allows you to gain more information in your research area. Data collected from documents can be added to the data collected in interviews and focus groups (and questionnaires, if relevant) and can be part of your data analysis. All kinds of documents could be used for this review, for example: curriculum documents, school policies, government directives, educational strategic plans, annual operating plans, journal articles, books, etc.

Note: Ethical considerations

Whenever any research is carried out in any way and using whatever methods, it is extremely important that all ethical considerations are carefully observed at all times. The five principles of ethics are explained in detail in Chapter 3.

e. Questionnaires

Questionnaires are not generally needed for small scale research as interviews and focus group discussions will usually generate the data needed to respond to the research question. However, in larger action research projects where the number of participants and different locations make it difficult to conduct interviews, then questionnaires can be useful.

It is important to establish the reading and writing ability and language of participants before distributing questionnaires. It is inappropriate to use a questionnaire with indigenous or marginalised groups that may have little experience of completing forms.

Questionnaires must be crafted very carefully and often come in two parts. The first part is just for collecting basic information about the participants (gender, age group, employment status, etc.) which may influence their responses. The second part uses tick boxes and open-ended questions where participants are required to write more and to include their personal thoughts and opinions. Questionnaires are generally 'piloted' before being used with participants. This means that you try them out on people who are not included in your study so that you can judge whether or not your questions are getting the responses that you are expecting. The need to pilot a questionnaire adds to the time needed for your action research project.

It is also important to follow all ethical procedures (see Chapter 3) and to ensure that participants can maintain their anonymity by not putting their names on the questionnaires. An example of a questionnaire is given below.

> ### Research Question
> How confident does a new researcher feel about undertaking an action research study after attending 8 hours of training?

Instruction: Write a paragraph explaining what your research is about and how you would like your participants to complete the questionnaire to help you find information supporting your research. Remember to give a **deadline** when you would like your completed questionnaires to be returned.

Name (optional) …………… **Gender**:……. **Age**:…… **Occupation**:…………...

Table 5. Please put a check (✓) in the appropriate box

Statement	(1). Strongly Disagree	(2). Disagree	(3). Not sure	(4). Agree	(5). Strongly agree
1. I can share a clear definition of action research with my research participants					✓
2. I know the essential components of action research				✓	
3. I can explain the democratic nature of action research					✓
4. I understand the importance of collaboration to achieve positive change				✓	
5. I know how to identify my participants				✓	
6. I know how to write a good research question			✓		
7. I understand the importance of ethics in action research					✓
8. I understand why we must always reflect on our research				✓	

9. Can you give reasons why you wanted to attend training on action research?

…………………………………………………..……………………………………...

…………………………………………………………………………………………

10. Do you think that having attended the training that you can now carry out your own research project with confidence?

…………………………………………………..……………………………………...

…………………………………………………………………………………………

11. Were there any areas that were not covered in the training that you would have liked to cover?

…………………………………………………..……………………………………...

…………………………………………………………………………………………

12. Would you recommend the training to any of your friends?

…………………………………………………..……………………………………...

…………………………………………………………………………………………

13. Would you like to attend further training on how to conduct action research?

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2.5 Data recording

The easiest way of recording interview data is by using the voice recorder on a mobile phone (or other types of voice recorder). However, these recordings are generally then transcribed into print so what participants said can be analysed carefully. Transcribing recorded interviews can take many hours and it is a laborious process. Alternatively, recordings can be listened to a number of times and key points only can be transcribed. While this can reduce the amount of time taken, it is important that the key points transcribed truly capture what participants have said and represent an honest account of the words spoken (see section 2.9 for more details.)

An alternative way of recording data, particularly in focus groups and group interviews, is to make notes of what participants are saying while they talk. These notes can be written on large sheets of poster paper so that participants can see what is being written and can agree (or disagree) with what has been noted. After the interview or focus group session, the researcher can transcribe the hand-written notes to prepare them for analysis.

If you choose to record your participants' voices in interviews and focus group, then what has been said needs to be transcribed in written form ready for analysis. However, this can be a very time-consuming process. An alternative to transcribing every word, is to only pick out the important points to write down, although this requires the researchers to listen to the recordings several times. An example is given below:

A record of an interview with a DOE officer in response to the research question: How can I improve participation and accountability in the development of the AOP for my DOE?

'It happens every year… we know we have to prepare the AOP every year … we have a deadline, yes, but it's difficult and we always send it late … never get it done on time… I think we did once ... that was a few years ago when things were different … Kunthea was in charge then. I need to get information from the schools, but sometimes a school's plan is no good and I have to go to the school … sometimes I make lots of visits … I go again and again. Now they have changed the format and we must do it differently … nobody knows how to do it… well I don't and I'm sure I'm not the only one. We were given training but, you know, it was only half a day. The best bit of the workshop was the food at the local restaurant! The training really wasn't enough … most of us can't really remember what was said even though we tried to write everything down … it's difficult isn't it? I don't know what other districts do … we always end up copying what we put in last year's plan … nobody notices so I suppose it doesn't matter. Now they want us to put all this other stuff in … there's always more to do and they're always changing things….'

When listening to the recording several times, the important points are identified and noted as follows:

…we never get it [AOP] done on time …. sometimes a school's plan is no good and I have to go to the school
…again and again
…we were given training but
…was only half a day
…the training wasn't enough and most of us can't
…remember what was said
…we always end up copying what we put in last year's plan
…nobody notices
…there's always more to do and they're always changing things

By just noting the more important parts of what was said, you can keep to the point rather than transcribing things that are not relevant to your research, for example, enjoying a meal at the local restaurant. Noting only the key points also helps at the data analysis stage as it reduces the amount of text which needs analysing. However, it is vital that the researcher captures all the important parts of the interview and that the participant's voice has been accurately and honestly represented. It is advisable to keep the voice recordings so that they can be checked again during data analysis to ensure nothing has been left out.

2.6 Data analysis

Data analysis is often the hardest and most time-consuming part of the action research process as it requires a lot of thought and reflection. There are no short-cuts to good data analysis. It is usually the research leader who carries out the analysis, but other participants can be invited to help as long as clear guidelines are given.

1 Collect all the data from the interviews, focus groups, observations, document reviews (questionnaires).

2 Read through it very carefully – you will need to read through the data several times.

3 Try to identify themes and categories in the data – there may be one major theme that comes from all the data, but there may be a few minor themes instead.

4 Try to interpret what the data are telling you by asking yourself, 'what does all this information really mean?' Consider carefully what your participants were trying to tell you

5 Has the data collected responded to your research question? Do you have the evidence to draw conclusions and make recommendations?

6 Can you now implement evidence-based positive change in your workplace, organisation or planning?

Fig 2. Data analysis guidelines

Some examples of data analysis are shown below:

> **Research question**
> How can we support children to stay in school to complete their basic education?
>
> **Guiding question**
> Can you give me any reasons why you do not attend school regularly?

Table 5a. Example of data collected by a school director through an interview with his students

ID	Gender	Data from transcription	Theme	Category
1	F	My father always drinks alcohol, goes gambling, and there is domestic violence so I cannot learn well in school. I am often absent from school and I don't want to study.	Drinking alcohol, gambling, domestic violence	**Family factor**

| 2 | F | My parents work on a farm and I need to look after my younger brother because he is only two years old. In fact, I like to study, but I cannot go to school like my friends. | Poverty | **Family factor** |
| 3 | M | In my school, there are lots of bad students making troubles that leads me to lose concentration on my study because I am frightened. | Gangs | **School factor** |

From the transcription data in the table above, it can be seen that some children are describing problems in their home. This problem can become the theme: alcohol, gambling, domestic violence, poverty, which are in the category of family factors. However, the issue of bullying or gangs is in the category of school factor. In terms of positive outcomes, while it is difficult to implement change in family behaviour, school factors can be changed for the better and the school director and teachers can make positive interventions to prevent gang culture. Themes will vary depending on the research questions.

Research question
How can we identify the positive attributes of a school director which support improvement in teachers' performance?
Guiding questions
1. How do you feel about working in this school?
2. How does your school director assign duties to the teachers?
3. How does the school director motivate the staff?

Table 5b. An example of a POE/DOE research officer who interviews teacher participants

ID	Gender	Data from transcription	Theme	Category
1	M	I am very happy to be part of this school because most of the teachers are friendly and helpful. My school director really pays high attention to all staff. Before my school director assigns the task to the staff, he always	Educational background, talents, working experience and behaviour	**Delegation**

		considers the teachers' educational background, talents, work experience and behaviour.		
2	M	I am satisfied with my job because all the staff and School Director have built good relationships. We always help each other when one of us is in trouble. Recently, there was a teacher in our school who was sick. We and School Director visited her. Most of the teachers are happy to do their job because we work by using our educational background and skills.	Educational background, using skills	**Interpersonal relationships**
3	F	Sometimes I am not so happy with my School Director. He is so strict and likes blaming staff. However, I note that his delegation of duties to staff is fair. I have never heard any complaints from my team.	Fairness	**Delegation**
4	F	For his motivation of the staff, I think he is good. When his staff perform well, my school director often praises the teachers during meetings. At the end of the academic year, some outstanding teachers receive a reward with incentives.	Admire, praise, reward	**Motivation**
5	F	I think that his leadership on motivation is good because he motivates hard-working staff and complains about passive teachers who are always late and absent. Even though he complains about some staff, they don't get angry with him.	Hard-working	

From what the teachers have said, we can see that the school director can effectively delegate duties to his staff and this motivates them to perform well. He is also good at interpersonal relationships. Not all the staff like the school director but they appreciate that he is fair, hardworking and praises staff who do well. The director recognises his teachers' skills when he delegates duties. We can therefore identify the attributes that a school director should have for effective leadership: good delegation skills, positive interpersonal skills, hardworking and openly appreciative of his teachers' efforts.
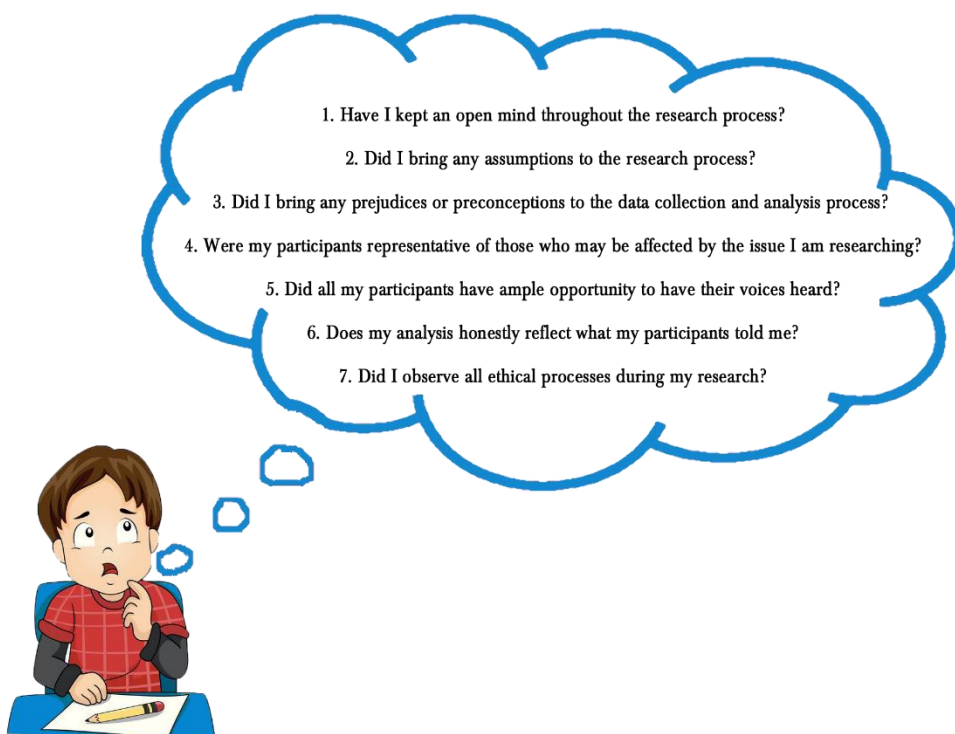
After we obtain the results via the data analysis, we can see whether or not we have answered the research question. If yes, we can draw a conclusion and make recommendations, and then we can make the positive change that is needed. If further data is required, then another cycle of research can begin (see Figure 1).

2.7 Reflexivity in the action research process

Reflexivity is the process of reflecting on yourself as the researcher, to provide more effective and impartial analysis. It involves acknowledging the assumptions and preconceptions you bring to the research and which may affect the outcome. None of us are objective observers - we are human beings who hold preconceptions and prejudices based on our life-experiences and what we have been told by those around us.

Reflexivity makes us think about the impact our assumptions may have on research and knowledge production; it helps us to consider those we may be excluding, those we may be prioritizing, and what impact our preconceptions may have on our research and participants. Reflective questions which could be considered by action researchers are:

1. Have I kept an open mind throughout the research process?

2. Did I bring any assumptions to the research process?

3. Did I bring any prejudices or preconceptions to the data collection and analysis process?

4. Were my participants representative of those who may be affected by the issue I am researching?

5. Did all my participants have ample opportunity to have their voices heard?

6. Does my analysis honestly reflect what my participants told me?

7. Did I observe all ethical processes during my research?

2.8 Putting it all together/sharing outcomes/making recommendations

After we have completed our research, we can organize an event for presentation to disseminate results with participants through report writing, PowerPoint presentations, and summaries. Depending on the research topic, the research outcomes can be shared with the appropriate people along with recommendations, if needed. In this way, we can get more input, feedback and recommendations from our participants. Finally, the results can provide the evidence required to develop an ESP, AOP, school development plan, teaching practice improvements, etc. in a systematic way.

For example, we can share outcomes during monthly school technical meetings and school management committee meetings.

Status of researchers	Events for sharing research outcomes
Teacher	monthly technical meeting, school management committee meetings, education congress
School director	monthly technical meetings, school management committee meetings, education congress
POE DOE	monthly meetings, education congress

Ethical behaviour in the research process

When carrying out action research, researchers are required to examine, argue, and discuss ethical issues. In every research project, all researchers, both research leader and research participants, need to keep a clear focus on ethical behaviour. This applies to the whole research cycle in order to ensure that safeguarding and child protection as well as basic research ethics are taken into account seriously. Generally, the five main principles of research ethics are:

Principle 1–Do no harm

The researcher must respect the privacy, autonomy, diversity, values and dignity of the participants: individuals, groups and communities. Action research must be conducted with integrity throughout and with sensitivity, empathy, thoughtfulness and care. The researcher must act with due regard to her/his social responsibilities when conducting and sharing the findings of the research. The researcher must aim to maximise benefits of the research (positive outcomes) and minimise harm.

Example: Kunthea conducted action research on school dropout in lower secondary education. She was interviewing four students, Nary, Pisey, Ratha and Chamreun but in the middle of the interview process, Nary felt unhappy and was too scared to provide further information. Seeing this situation, and by respecting the "Do no Harm" principle, Kunthea did not ask Nary to answer more questions and stopped the interview.

Principle 2–Obtaining Informed Consent

All participants must understand what the research is about and how it will be conducted (aims, methods, location, timeframe, etc.). The researcher must be seen to be trustworthy, transparent and honest about the research. The researcher must inform all participants that they

may withdraw from the research at any time and without consequence. The participants must know what will happen to the information that has been collected and how it will be shared (see Annex 3).

Example: Kunthea conducted an action research project on school dropout in lower secondary education. She interviewed school principals as well as other participants. She clearly explained to them what the research was about and how the data would be used to ensure that the participants were confident with this research process and had clear understanding. Finally, she asked the participants to sign the informed consent form. In one interview, a school principal brought a friend and asked if she could stay and participate in the interview. The friend did not know what the research was about and had not signed a consent form, Kunthea, therefore, had to tell her that she could not join the group.

Principle 3–Confidentiality and anonymity

Knowing that real names will not be used in any follow-up report, presentation or plan helps to build trust between the researcher and the participants. Anonymity allows participants to speak freely as their

identity will be protected. Maintaining the right of the participants to keep their personal opinions and issues private also preserves the principle of 'do no harm'.

Example: Kunthea builds trust and makes Nary, Pisey, Ratha and Chamreun feel safe and protected by explaining that in her action research data all information shared will be secret, safe and protected. One evening Kunthea's husband asks her what she talked about with her young participants. Unfortunately, due to confidentiality and anonymity, Kunthea was not able to share the information, even with her husband.

Principle 4–Avoid deceptive practices

The researcher should never give false information to participants who must not be intentionally misled about any aspects of the research.

Participants must enter into the research project willingly and not be coerced or bullied. Research findings should be shared honestly and without manipulation of data.

Example: Kunthea really wanted all her students to join the research project, but some didn't want to. To encourage her students to join, Kunthea told them that she would give them rewards if they joined her focus group. Kunthea later realised that this was wrong as the students had to enter into the research project willingly and must not be coerced. She spoke to her students again explaining that it must be their choice to join the focus group, but they must not feel bad if they did not want to join – she was not going to give anyone any rewards after all.

Principle 5–The right to withdraw

Participants have the right to withdraw, at any stage, from the research process. If a participant chooses to withdraw from the research, they must not be pressured to stay and there must be absolutely no negative consequences to their withdrawal.

Example: While doing interview with Kunthea, Chamreun does not feel happy and does not want to continue his participation. He asks to leave the research project. Kunthea really doesn't want Chamreun to go as he has valuable information to share, but Kunthea understands she has to follow the ethical principles, **right to withdraw**. So, she agrees with the request and allows Chamreun to leave. Kunthea smiles, so Chamreun knows that he is not in any trouble.

Research with Children

While the observation of all ethical issues is important when undertaking any research with adults, it is even more important when working with children. Children are vulnerable due to the power distance between a child and an adult. Children tend to believe what adults tell them and many have been brought up to do what adults tell them to do without question. Therefore, when using child participants in an action research study, the researcher(s) must take extra care to observe all ethical principles, for example, children should not be controlled or given limited information about the research being undertaken, the researcher should not manipulate children to respond in a certain way and the child participants should be interviewed as a small group. In seeking informed consent, the child participant must have a clear idea of the research area and the researcher must explain very clearly what will happen. The child's parents or carers must also give signed consent to allow the child to participate.

Protect anonymity and confidentiality
Participants should not be identifiable

Obtain informed consent
Researchers need to get informed consent from parents or carers.

3

2

Avoid deceptive practices
Researchers should never deceive participants.

4

Do no harm
Participants are vulnerable to psychological harm.

1

5

Provide the right to withdraw
Participants can withdraw at any time with no consequences.

Chapter 4

Conclusion

The Action Research Technique (Do-It-Yourself Guide) aims to demonstrate that action research can be used to empower people through collaboration to improve their working lives by investigating issues in their workplace, finding reliable evidence and implementing positive change. The book recognises that anyone can undertake action research and it is not only for academics or university students. In order to emphasise this point, the book's objective is to show that action research is accessible to everyone by offering a step-by-step guide of the action research process, and by including many examples of real-life situations. Each step is broken down to give clear explanations of what the action researcher needs to do to complete each stage of a research study. The book highlights and promotes the important issue of ethical behaviour that all action researchers must observe whether they are dealing with adults or children. This is particularly important where SEGA issues are investigated, and where the participants are likely to be from vulnerable or marginalised communities which do not generally have a voice in discussions determining their future.

The book also aims to highlight the flexibility of action research and the range and scope which can vary from a small and very personal research study to a larger scale study that focuses on organisational change. Timescales are also flexible and can be tailor-made to suit research which can be undertaken over just a few weeks or over a few months.

For those who are working at schools, the DOE or POE, this book offers a realistic way to find the robust evidence that must be included in AOPs and ESPs as well as decision making. An example of a timeframe is included as an aid to time-management so that the action research study can be completed in good time in order for outcomes to be included in planning.

Action research should be seen as a significant guide to empower educators and educational administrators at all levels and act as a guide for the

reflection of their practice and desire to make successful interventions. To this end, it is very much hoped that this book will encourage those who want to make a real and long-lasting difference to take the first step towards becoming an active action researcher with the determination and will to make positive changes.

Social Exclusion and Gender Analysis (SEGA)

This annex aims to provide some basic understanding on the meaning of exclusion, types of exclusion and some tips on how to use this understanding when considering an issue for action research. SEGA is a very extensive topic and cannot be covered in one page.
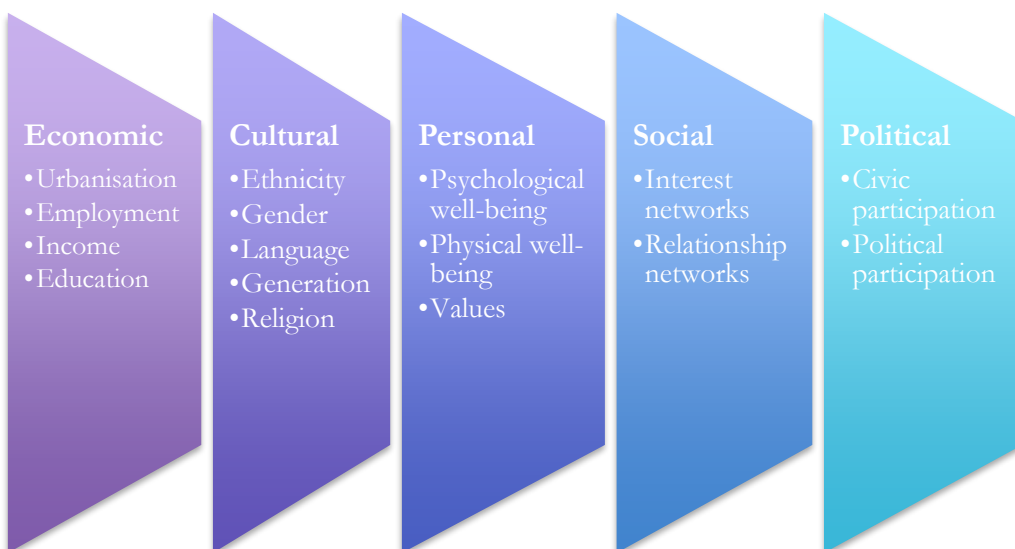
What is Social Exclusion?

Social exclusion is when individuals or groups are unable to participate in the economic, social, political and cultural life of their society. Marginalised groups can become trapped in this cycle of exclusion from each domain of society.

These groups are also denied access to powerful institutions and organisations. They can be deprived of their personal agency and control over important decisions, often leading to feelings of alienation and inferiority.

Types of exclusion:

Economic
- Urbanisation
- Employment
- Income
- Education

Cultural
- Ethnicity
- Gender
- Language
- Generation
- Religion

Personal
- Psychological well-being
- Physical well-being
- Values

Social
- Interest networks
- Relationship networks

Political
- Civic participation
- Political participation

Specifically, people can feel excluded in the following seven areas:

1. Gender
2. Disability status
3. Religion
4. Sexual orientation (LGBTQ)
5. Ethnicity
6. Employment status
7. Location

Choosing any SEGA issues as a topic for action research is possible!

In a free and democratic society, to be able to participate in and influence the decisions that affect your life is an empowering process. It builds confidence and cultivates a sense of agency and voice. Simultaneously, through this process of participating and influencing, marginalised groups can affect attitudes, norms, institutions and policies that drive social exclusion in the first place, leading to long-term structural changes and a reversal of their excluded status.

In this context, choosing a SEGA related issue for conducting action research using this guidebook would be a first positive step in this direction. While choosing issues at various levels, SEGA always needs to be at the back of our minds. Let us look at how SEGA can affect our education at various levels and how we can develop SEGA focused action research questions.

School level

1. How can we increase participation in the education of children from certain communities (linguistic, religious, socio-economic minorities)?

2. How can we improve learning levels among children coming from marginalised and excluded backgrounds?

POE/DOE level

1. How can we increase enrollment and retention levels among the children from marginalised communities (linguistic, religious, socio-economic and other minorities)?

2. How can we improve learning levels in core subjects (Khmer, Mathematics and Sciences) among linguistic, religious and socio-economic minority group children?

Similar issues can also be identified at the departmental and institutional level.

Template for Writing a Report Based on Your Action Research Study

Title - *write your action research question here*

Researcher name – *write your name here*

Date – *write the date of submission here*

I. Introduction

Rationale

In this section you:

1. Explain why you chose the research area you investigated and what it was about the issue that attracted you or made you want to learn more.
2. Explain the 'need' for the research and what you hoped you would achieve through conducting the research – your positive outcome.

Desk review of relevant literature:

In this section you:

1. Write about any information you found that was relevant to your research: school plans, data from the districts, D/POE AOP, etc., newspaper articles, journals.
2. Describe what information you were able to collect from documents and how it informed your own research.

II. Methods used to collect information

In this section you:

1. Explain how and why you chose your research participants.
2. Explain, for example, how you approached people and ensured there was a good gender balance (or, if not, then explain why you could not have a good gender balance).
3. Where and when did you meet? How many times did you meet?
4. Were there any issues with your participants?
5. Did you ensure they gave their informed consent? Did any withdraw?
6. Were they interested in your research? Did they engage well with the research sub-questions?
7. Next, you need to describe your methods of data collection and why you chose these particular methods: face to face interviews (how many people in the interviews), focus groups, telephone interviews, electronic communications, questionnaires, etc. (if you chose to use a questionnaire, then you must describe how you developed your questions and how it was piloted).
8. Explain if there were any issues with your methods.
9. Now you need to explain how you recorded the information you collected – did you record your interviews/focus groups? Did you make notes of key points? Were there any difficulties?
10. Before you finish this section, you need to state how you observed the five principles of ethics in research

III. Result and discussion using data analysis

In this section you:

1. Look at your findings (raw data), analyse all the information from your field work and desk review and make sense of it all. This analysis will allow you to see whether you have answered your research question and whether you have produced a positive outcome.
2. Write about whether or not you could identify any patterns or themes from the findings.
3. Write about what your participants said – were they all saying the same things or were their views very different? Why might that be?

4. Was there a gender divide, or an age divide?
5. If you write clearly and honestly about your participants and what you learned from them, your research will be seen as trustworthy.
6. Write your reflections on how you worked with your participants, the relationships you developed and how you might have affected the research by your presence as the researcher.
7. Write about anything that surprised you or differed from your initial thoughts and ideas. Were any of your initial assumptions overturned?

IV. Strengths and weaknesses of the research

In this section you write about:

1. What worked well in your research and
2. What, with hindsight, you thought you could improve if you were to do it again –this is the 'monitoring and evaluation' part of your report. Be honest and self-critical.

V. Conclusion

In this section you write about:

1. How your research question was answered (as it hopefully was!) and
2. How positive change has been achieved in your practice, workplace or organization.

Consent to Take Part in Research

- I……………………………………… voluntarily agree to participate in this research study.
- I understand that even if I agree to participate now, I can withdraw at any time or refuse to answer any question without any consequences of any kind.
- I understand that I can withdraw permission to use data from my interview within two weeks after the interview, in which case the material will be deleted.
- I have had the purpose and nature of the study explained to me and I have had the opportunity to ask questions about the study.
- I understand that participation involves sharing my views, ideas and observations.
- I understand that I will not benefit directly from participating in this research.
- I agree to my interview being audio-recorded.
- I understand that all information I provide for this study will be treated confidentially.
- I understand that in any report on the results of this research my identity will remain anonymous. This will be done by changing my name and disguising any details of my interview which may reveal my identity or the identity of people I speak about.
- I understand that if I inform the researcher that myself or someone else is at risk of harm, they may have to report this to the relevant authorities - they will discuss this with me first but may be required to report with or without my permission.
- I understand that I am free to contact any of the people involved in the research to seek further clarification and information.

Date: _____

Signature of research participant: _____

Signature of the researcher: _____

Annex 4

Sample Budgets for Action Research

Example 1. Small-scale study by school director: How can we support children to remain at school beyond Grade 6?

No.	Activities/ Description	Participants/ Items	QTY	Rate (USD)	Total
1	Interview & Focus Group Discussion	Parents & Students	12	$2.00	$24.00
2	Contingency Expense	Paper, ink, markers	1	$50.00	$50.00
				Total	**$74.00**

Example 2. Small-scale study by DOE officer: How can parents be encouraged to enroll their young children in the community kindergarten?

No.	Activities/ Description	No. of participant/ unit	Rate (USD)	No. of day/night /km	Total
1	Accommodation	2	20	1	$40.00
2	DSA	2	14	2	$56.00
3	Travel	2	0.1	45	$9.00
4	Refreshment for technical meeting	20	2	1	$40.00
5	Stationeries & Photocopy	1	50		$50.00
				Total	**$195.00**

Example 3. Small-scale study by POE officer: How can we improve participation and accountability in the development of the yearly AOP?

No.	Activities/ Description	No. of participant /unit	Rate (USD)	No. of day/night /km	Total
1	DSA	2	14	2	$56.00
2	Travel	2	0.1	35	$7.00
3	Refreshment for meeting	12	2	1	$24.00
4	Stationeries and Photocopy	1	50		$50.00
				Total	**$137.00**