

EDUCATION MICROPLANNING TOOLKIT

INTRODUCTORY MODULE



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Foreword

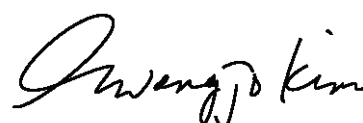
Over the past two decades, decentralization, as a process for devolving decision-making, has been increasingly common in different areas of government responsibility in both developed and developing countries. In the education sector, decentralization is one of the most popular reform policies in many countries. As education systems continue to devolve decision-making to lower levels of administration, decisions on quality improvement, curriculum innovation, school development and financial resource management that were previously taken at the central level, are now in the hands of local actors.

Actors at the local level, particularly at the school level, are in a better position to understand the characteristics and needs of the population they serve than are actors at the national (central) level. Yet, local actors can find it challenging to implement broad national or sub-national policies at the local level and decide on the local actions to take.

The Education Microplanning Toolkit has been developed to support education planning at the local level, emphasizing four main aspects of planning and change: increasing access, improving learning outcomes, enhancing community participation and supporting open and informed decision-making. This framework has moved education microplanning from being a functionalist planning and management tool to one that appreciates the social and cultural contexts in which planning takes place, and attempts to bring communities together to meet identified needs at the local level.

The toolkit offers advice to appointed officials and administrators, especially those at the school and district levels, on planning local education changes so as to enhance the delivery of educational services in their areas. It also supports local development efforts in a national education planning context through empowering local communities to participate in such a way that local needs are clearly articulated and policy solutions are designed to meet those needs.

The toolkit is a work-in-progress; it is incomplete but can already provide useful advice for education planners at the local level. UNESCO seeks comments and feedback from the users of the toolkit on the usefulness of the information provided as well as any suggestions for improving the toolkit, so that the next edition will provide information that fully meets the needs of microplanners. Depending on the needs, additional modules may be added to a future edition of the toolkit. We trust the current edition will be valuable and look forward to receiving your feedback.



Gwang-Jo Kim
Director
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1

LEARNING OUTCOMES FOR THIS MODULE

- 1.1 Understand what education microplanning is.
- 1.2 Understand the purposes of education microplanning.
- 1.3 Become familiar with one way that education microplanning can be implemented to address a specific issue.
- 1.4 Become familiar with some contexts in which education microplanning has been used.

Introductory Module	Provides an introduction to education microplanning, the functions it can serve and examples.
Module 1	Principles of microplanning: Working with communities Focus: Working with local communities – building partnerships.
Module 2	Getting started: Initiating an education microplanning exercise Focus: Getting prepared for an education planning exercise at the local level: spatial, social, economic and educational considerations.
Module 3	Conducting a needs assessment – instruments, data collection and analysis. Focus: Getting to understand local needs through engaging communities in planning and building capacity.
Module 4	Enhancing curriculum and teaching processes to improve student learning Focus: Getting to understand the planning, implementation and evaluation processes that contribute to successful student learning.
Module 5	Data and information for decision-making and planning Focus: Using data for understanding and improving education at the local level: assessing the outcomes of planning in areas such as access, participation and learning.

3

This module will provide a general introduction to education microplanning. The module is designed particularly for education officers who have responsibility for local planning efforts and for making management decisions at the local level. This could be at the district level where officers have responsibility for implementing aspects of national or sub-national level education objectives. Alternatively, it could be at the school level where school governing bodies or principals have some responsibility for implementing broad education policies that were created at the national or sub-national (province or state) level.

As will be shown throughout this module, education microplanning is a process that seeks to connect broad policy objectives to local contexts. The assumption is that action needs to be taken at the local level if the national objectives are to be achieved. Thus, education microplanning leads to local-level decision-making and the development of action plans regarding how to implement broad national or sub-national policies at the local level. As a management tool, education microplanning directs resources, aspirations and efforts at all levels towards the achievement of common goals.

Education microplanning exercises are carried out in many situations. These range from determining the best locations for new schools, to developing a locally relevant curriculum, implementing new approaches to assessment and establishing local early childhood education centres.

Education microplanning uses an evidence-based approach to making decisions. Evidence is collected from the local area about local views, issues and priorities, using information gathering tools such as surveys, focus groups and interviews. These information gathering tools will be discussed in subsequent modules, as will analysis of information that is gathered as a result of using these tools.

Information management systems can be developed to manage the information that is collected at the local level and to keep a record of the progress that is being made towards achieving targets. Information management systems will be described in a subsequent module.

Education microplanning involves accurately identifying problems, collecting evidence that can help to design solutions to those problems, and preparing local action plans. Such plans include methods for evaluating progress towards completing the activities in the action plan and towards achieving the desired results.

4.1 What is education microplanning?

The **Education Microplanning Toolkit** uses the following definition:

Education microplanning – education planning at the local (“micro”) level – is a holistic and participatory approach to local-level planning and decision-making. While it is focused on the local level, it is linked to national and sub-national education policy directions.

It is worthwhile to spend some time reviewing this definition because it has a number of important features:

- ➔ Education microplanning involves planning at the local level, with the community affected by the education policy or reforms. It requires the participation of local actors, including, for example, district officers, school leaders, teachers, community education groups, parents and students.
- ➔ Education microplanning takes up policy objectives that were set nationally and prepares plans to implement those policies at the district and community level. The focus is on implementing central policies at the local level. Education microplanning assists local education authorities and communities to align national and sub-national education priorities with local needs. It involves identifying ways in which local communities and schools can put national or sub-national policies into practice.

4.2 Why use education microplanning?

In many education systems around the world, the planning and management of education has been decentralized to the province, state, district or community level. This shift towards decentralization is based on the principle that local level involvement in planning often results in more effective plans and better outcomes than centrally directed plans and activities. This is because centrally directed plans and activities are often unable to take into consideration local needs and views, and local barriers to policy implementation.

4.3 What problems can education microplanning address?

The priority education issues are often defined at the national or sub-national government level and the policy objectives are often expressed in very broad terms (e.g. universal primary education, the inclusion of children with special needs, the achievement of gender equity, and improving student learning outcomes in mathematics and science). Sometimes specific targets are set in relation to these broad policy objectives (e.g. universal education by 2015, the enrolment of 50 per cent of children with special needs by 2020). Local level planning is an attempt to develop local action plans to achieve higher level policy objectives.

National governments are held accountable for their policies even though the necessary action to achieve these policy goals is often in the hands of local authorities such as districts, communities and schools. Education microplanning is the necessary link between national policy objectives and the actions taken locally to achieve these objectives. The particular issues that can be addressed by education microplanning depend on specific contexts, but the following are some possible examples of local issues that could be taken up in an education microplanning exercise.

- ➔ School enrolments are not meeting national or state/provincial targets.
- ➔ Literacy rates for girls are very low.
- ➔ The number of out-of-school children in the community is increasing.
- ➔ The performance of local students on national tests is below an acceptable standard.



notes

- ➔ Teacher attrition is very high.
- ➔ School buildings and facilities are not keeping up with demographic changes.
- ➔ The school curriculum does not prepare young people for modern day challenges.
- ➔ There is a lack of early childhood education and care facilities in the local community.
- ➔ Children are not enrolled at the proper age.

4.4 How do you implement education microplanning?

A key aspect of the microplanning process is to identify how to implement national education policies at the local level. To achieve this, it is necessary to collect information about the views, concerns and needs of the local community in relation to the education policies. Such information can be collected in various ways (e.g. surveys, interviews, focus groups). This information provides the evidence that is needed to make decisions and action plans to implement national education policies at the local level. An information management system should be established at the local level to manage this and other information that is required for decision-making and for making action plans.

Take, for example, the national policy “universal primary education”. An issue related to this at the local level might be that “school enrolments are not meeting national targets”. How might this be addressed? There are a number of stages in implementing a microplanning exercise to address this issue:

I. Collect information

- ➔ Conduct a survey of parents to find out which parents do not enrol their school-aged children in school and the reasons why these school-aged children are not enrolled in school.

- ➔ Conduct a number of focus groups with the parents whose children are not enrolled in school, to enable parents to discuss their reasons for not enrolling children in school and the suggestions they have to overcoming the obstacles to enrolling their children in school.
- ➔ Interview a sample of school-aged children who are not enrolled in school.

II. Analyse the information

- ➔ Outline the results of the survey in a simple format using basic descriptive statistics (e.g. total number of households, number of households that do not enrol all/some school-aged children in school, major reasons given for not enrolling children in schools and the percentage of households that gave each reason).
- ➔ Identify the main reasons that parents in the focus groups gave for not sending their children to school and their suggestions for overcoming these problems. Check to see if these themes are consistent with the survey findings.
- ➔ Compare the reasons for not attending school given by the children with those given by the parents and with the reasons listed in the survey.

III. Prepare a report

- ➔ Based on the survey results, focus groups and student interviews, prepare a simple report that lists the key statistics and outlines the key reasons given by local parents and children to explain why children are not enrolled in school. The reasons given by parents could include things like: “We don’t send our daughters to school because there is only one toilet at each school and we don’t want our daughters to share toilets with boys” (UNESCO, 2005).
- ➔ As well as providing the information collected from the community, the report should also compare the results of the three sources of information (survey, focus groups and interviews). Where the three sets of data provide the same information this should be indicated. Likewise, when there are disagreements between the three data sets, this should also be highlighted.

IV. Discuss the findings and report with the community

- A meeting should be held to share the results of the information-gathering process with the community, and to get their feedback and suggestions on how to address the obstacles they face in enrolling school-aged children in school, including specific activities that need to be planned.

V. Develop an action plan

- Based on the report and the outcomes of the meeting with the community, an action plan should be prepared that lists the specific activities that need to be implemented to overcome the obstacles to enrolment of school-aged children in schools, as identified by parents and students (e.g. build separate girls' toilets at all schools in the local community so that girls do not have to share toilets with the boys).
- The action plan should include a resource plan to indicate the costs of implementing each activity.
- A professional development plan should be included if new skills or attitudes are required among professional staff in schools.
- The plan should include specific targets for each activity and the timeline for achieving the targets (e.g. two girls' toilets built at the two schools in the community – completed within four months of the implementation of the activity).
- Milestones should be set for achieving targets so that progress can be measured (e.g. one toilet should be completed within one month of the start of the activity, two toilets should be completed within two months, three within three months, four within four months).
- Indicators must be set to measure progress towards each target (e.g. how many toilets have been built within two months of the start of the activity?).
- Methods for monitoring the progress of the activities need to be outlined in the plan (e.g. a person will be assigned to make sure the people building the toilets - such as a community group or contracted builder - provides weekly and monthly progress reports, and are completing each toilet according to the schedule).

4.5 What kinds of skills are needed to conduct an education microplanning exercise?

It is clear from the above example that a range of attitudes and skills are required to conduct a successful education microplanning exercise.

Attitudes:

- ➔ Willingness to listen to the opinion, concerns and solutions suggested by the community.
- ➔ Understanding of the need for discussion and interaction in order to find solutions.
- ➔ Respect for local values (which may be diverse and conflicting).

Skills:

- ➔ Information gathering techniques that can be used in a local context (preparing and conducting surveys and interviews, and facilitating meetings and focus groups).
- ➔ Analysis skills (to analyse quantitative and qualitative data).
- ➔ Report writing skills (to produce simple and accurate reports).
- ➔ Presentation skills (to present findings to the community clearly and concisely).
- ➔ Planning skills (to prepare activity plans, set results, and create milestones and indicators).



Education microplanning is a local level planning process that links national and sub-national goals and objectives in education policy to the local level context. It takes place in decentralized education systems that recognise local level action as crucial to the achievement of national and sub-national policy objectives.

At the heart of education microplanning is the recognition that local communities should not simply be at the end of a top down policy process. Rather, effective policy implementation recognizes that local communities provide valuable input in identifying local priorities and the obstacles to the implementation of national policies, so that the planning process creates useful action plans that address the real issues.

Education microplanning is an evidence-based decision-making process that relies on the collection and analysis of relevant local information. It requires knowledge and skills to collect and analyse information, present the information, and prepare reports and plans. Education microplanners must be sensitive to the context and develop solutions that are relevant to the local needs and contexts and which have community support, and therefore have a high potential for success.

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Case 1: School mapping – an example from Tanzania

Despite a 1995 national policy commitment to provide free education for all young people, the Government of Tanzania found that gross enrolments in primary schools declined over the following decade. In response, the government devolved responsibility for increasing enrolments to the local level. Local level planners (microplanners) used “school mapping” techniques to identify the barriers to enrolment in primary schools. The school mapping process created a visual representation of the obstacles, which led to the identification of solutions to overcome these obstacles.

Case 2: Village Education Committees – an example from India

Each state of India has a policy to improve the quality of education. Officials in Tirumangalam in Tamil Nadu State felt that it would be necessary to improve local schools as a priority in order to improve the quality of education. They adopted the strategy of encouraging community participation through Village Education Committees (VECs). Each VEC was asked to develop a microplan (local action plan) that listed activities that would improve the schools in their communities. The VECs identified the problems and needs by having meetings and discussions with parents, teachers and other community members. The VECs developed solutions and an action plan, which included a timeline for the implementation of the activities. Each VEC was then given responsibility for monitoring the implementation of its action plan. But the VECs were not successful until they received training. The shift in education management tasks to these new actors



(VECs) required building their capacity to enable them to develop and implement their action plans.

LEARNING FROM THE CASES:

- 1.** Education microplanning can take place at different levels and for different purposes – it might be at the district level, community level or school level.
- 2.** In both cases, the microplanning exercise was adopted to achieve broad policy objectives articulated at national or state (provincial) level.
- 3.** Methods for education microplanning vary widely. The methods used should be appropriate to the local community and their values.
- 4.** New actors need support to build their capacity to develop and implement action plans.

7



Review the definition of education microplanning at the beginning of this module. How would you explain it to people in your community or district?



Who has responsibility for determining education policy in your country? Are local communities involved in implementing education policy at the community level? Do you see a role for education microplanning in your context?



What do you see as some of the advantages of education microplanning and what do you see as some issues and problems with using this approach within your local context?



Do you think the knowledge, skills and values required for education microplanning are available in your context? Do you think additional skills are required?



What are some current education issues in your district or community that could be addressed through microplanning? Develop a brief plan to show how you might go about an education microplanning exercise related to a current local issue.



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EDUCATION MICROPLANNING TOOLKIT

PRINCIPLES OF MICROPLANNING: WORKING WITH COMMUNITIES



United Nations
Educational, Scientific and
Cultural Organization

UNESCO Bangkok
Asia and Pacific Regional Bureau
for Education



The Hong Kong
Institute of Education
香港教育學院

MODULE 1

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1

LEARNING OUTCOMES FOR THIS MODULE

- 1.1** Identify effective ways of involving community members in microplanning processes.
- 1.2** Understand how contexts influence planning and recognize the function of various microplanning tools.
- 1.3** Identify community and team needs when capacity has to be developed.
- 1.4** Appreciate the importance of community involvement in microplanning as a means of building commitment to change and innovation.

STRUCTURE OF THE TOOLKIT

2

Introductory Module	Provides an introduction to education microplanning, the functions it can serve and examples.
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3

The aim of education microplanning is to produce a localised plan of action that supports the implementation at the local level of national and sub-national education policies and goals. Community engagement is essential for local education planning (microplanning) initiatives to succeed.

Microplanning is not a task for an external team; it is a matter for the whole community. Participatory planning provides a platform for mutual exchange and dialogue concerning local needs, constraints, and possible solutions. The planning process should empower local actors to transform education to meet their needs and goals.

A community is unlikely to get behind any change if they do not believe that change is needed. People need a cognitive understanding of why the change is necessary, what will be involved, how it will affect them and what the consequences will be. This involves building relationships, communication and jointly developing a plan for how to implement the change. Transparency is the key to achieving engagement and good communication.

In a successful microplanning exercise, the various actors, including both the microplanning team and the community members, should get information from each other. Listening to the community is a key skill for education planners and responding to local needs is essential in any local level planning process.

There are numerous tools that can be used to collect information. These include community meetings and consultations, focus groups and feedback sessions and interviews. The purpose of these information-collection tools is to seek community views so that planners understand community needs and problems. Knowing which tool to use, and how, are important skills.

4.1 Engagement

Whenever policies are made that require changes in education at the local level, it is necessary to engage with local educators and community members and get their input into the planning process. Engaging the local community in the planning of activities is of crucial importance, otherwise the changes will not bring about the expected beneficial results. The changes may be related to teaching, such as a new curriculum, new teaching strategies and new assessment processes, or the changes may be related to logistics and infrastructure, such as new school hours and relocating school buildings, or to student attendance and parental involvement.

Microplanning is not something done “to” the community – it must be done “with” the community. Planners at the local level (microplanners) have close proximity with the local community, so are more able to engage with community members than are planners at the national level. Direct interface with local actors and the lived experiences and relationships forged with them allow microplanners to begin to understand the complexities of the local context – and deepen their understanding of the key local challenges relating to education.

Relationships of mutual respect and understanding should be cultivated for a healthy exchange of information and ideas. The Lok Jumbish or “People’s Movement” initiative implemented in Rajasthan, India, was a success because it began with discussions between community members, including teachers, parents and religious leaders. These discussions enabled each group to appreciate and understand the problems and concerns of the others.



4.2 Commitment

Engagement of the local community is the initial phase of microplanning. But for true change to occur the local community must become committed to taking action toward improving education.

Commitment requires recognition of the importance of the new initiative and a desire to support its implementation. Moving beyond engagement to commitment requires a personal decision by participants. People have to see the value in what is being planned – value for themselves, their family and for the whole community, and they must regard the change as something that they themselves decided to do; otherwise all implementation efforts are likely to be ineffective. When people choose something for themselves, they are likely to be far more committed to the outcome than if someone else chooses it for them. People also need to be part of deciding what the action plans will be. That is, they need to “own” the initiative and the plan.

Change is as much an emotional as a practical activity. If people are to “own” the change they must see it as a good idea and they must become excited about it (Mellina, 2006).

There is a continuum of participation, with passive participation (listening to a plan devised by others) at one end and empowered participation (joint analysis and decision-making about what should change and how) at the other end. Education microplanning activities should foster empowered participation.

4.3 Understanding the reasons for proposed changes

People must be confident that they can do what the change requires, whether it is about greater parental participation in the running of the local school, or sending their children to school on a regular basis rather than keeping them at home to assist with domestic work. To become confident about implementing the changes, they need to first fully understand the reasons why the change is being proposed. If microplanners want community support for proposed changes, they need to clearly present their reasons for these proposed changes (Rasmussen, Jensen and Sandoe, 2007).

Change is not a neutral process – it may challenge values and long held beliefs. The advocates for change whether they are public officials or community members, need to understand these values and beliefs, and how the proposed changes may be perceived.

For example, some education systems are implementing policies that aim to end corporal punishment in schools. If corporal punishment is an accepted type of punishment for children, this proposed change in behaviour at the school level requires community dialogue around conceptions of respect and discipline. If an outside team enters a community and simply lectures on the evils of corporal punishment, the community will not be very receptive and will feel they are being judged negatively or misunderstood. The community's views should be listened to before alternatives are explained, so that the community feels that their opinions are respected. When people feel their views are respected they are more open to embracing new approaches. If mutual exchange on the topic is successful, the community would be open to discussing alternative forms of classroom management, and would be willing to participate in developing an action plan towards phasing out the use of corporal punishment in schools and even in the home.

This collaborative approach to planning sends a strong message to the community about the way in which you wish to work. It may take some time to establish such an approach but it is worthwhile doing so because it can counter any possible resistance that might emerge later.

4.4 Communicating about the change – a two way process

Communicating with people about policies and proposed changes should not be one-way – from officials to the community. It must be genuine two-way communication, involving not only speaking but listening as well.

For example, there have been cases when new text books are distributed to schools but are never removed from their glossy packaging. Instead, the new books are locked in a cabinet away from student access, and they therefore do not serve their intended purpose. In such situations, education officials need to ask school leaders and teachers why the books are not being used, and then need to listen carefully to the reasons given. One reason given by the teachers and school leaders could be that they are worried that there will be negative consequences if the books are damaged or lost. By understanding the underlying reasons why the books are not used, this issue can be addressed by assuring teachers and school managers that it is okay if the books are damaged and that they will only be useable for a limited period of time. Thus, the issue can be resolved through clear communication and mutual understanding.



4.5 Providing support for change

Change can rarely be accomplished without providing support of some kind to the people who will be affected by the change, including support to enable people to participate in implementing microplanning exercises.

Support may be in the form of training if new skills are required, the provision of mentors who can provide advice and assistance during the change process, or new infrastructure if the change effort requires physical resources. Support may also be in the form of moral support – being available to discuss issues arising from the change. This is particularly important where the change initiative is complex and participants need additional information as they encounter operational issues.

Lack of support can cause the proposed change to be rejected because participants will be tempted to give up if they are not adequately supported to solve problems. Thus, support is an investment rather than a cost.

Another form of support is acknowledging successes, however small, as the implementation process moves ahead. Providing encouragement signals to the participants that their efforts are valued. This can be done very simply with small celebrations and constant attention to the things that need to be achieved. Change is a human process requiring the human touch.

Many of the requirements for successful changes require skill sets that may not be readily available in some communities, or even among the officials charged with the responsibility for managing the change effort. It is important to be aware of the kinds of skills that are needed. For example, if questionnaires are used to collect information, it is necessary that the person designing the questionnaire has the necessary skills to ensure the questionnaire will produce relevant and useful data. Furthermore, if the questionnaires are to be filled out by the community members, they must be written in a way that is appropriate to the level of literacy in the community.

Similarly, meetings need to be designed with the type of community in mind. In hierarchical societies, for example, the views that government officials share might be regarded as the final word rather than a subject for further debate and discussion, so in this case it must be explained to the community members that they can ask questions and debate topics if they disagree on anything. And meeting facilitators need to have facilitation skills to ensure that all types of views are heard, not just the views of the loudest or most powerful meeting participants.



In general, the local circumstances need to be well understood by project teams. No two communities will be the same, and the team must get to know the communities with which they are working. For example, the perceptions and expectations of an urban community may not be for the same as those of a rural community. The context will determine what is possible and the processes that can be used.

Whatever those processes may be, it is important to keep a focus on the desired outcomes. Even though there is a priority on engaging local communities fully, it is also important to achieve the education goals. Such goals may be prescribed in policy or even in legislation. There may be many ways to get there and significant adaptations may be necessary to conform to local conditions. Nevertheless, the key outcomes need to be firmly in place and well understood by all parties — the project team and the local community. These outcomes can be discussed, debated and at times even negotiated, but they need to play a leading role in all aspects of microplanning.

4.6 Transparency

For communication between microplanners and community members to be effective, it is necessary to adopt the principle of transparency. Transparency is when all people involved have access to all the relevant information. Furthermore, decisions must be open to public scrutiny, to debate and to discussion. This builds trust, which is essential in engaging communities in microplanning exercises.

There are different ways to ensure transparency, including keeping records of meetings and making them public then seeking feedback on those records, and giving information to the media.

4.7 Methods of collecting information

There are several methods by which microplanners can collect information from a community. Asking questions and listening are the two key skills to use with these methods.

Meetings are an important means of communication. A meeting can be convened to explain an education policy or goal, ask people's opinions on a policy or goal, answer questions and identify any concerns.

Focus groups bring together small groups of people to share information. Very often people feel more secure in smaller groups because such groups allow them to talk and listen to each other more easily and to respond not just to the person asking questions but also to others in the group. Microplanners can learn a great deal from a focus group just by listening and seeking to understand them.

Interviews can either be structured or semi-structured. In a structured interview, the same questions are used for each person. Because you ask the same question to different people it is possible to easily compare the answers. By interviewing a range of people it is possible to develop an understanding of various perspectives on an issue and how different people respond to it. In a semi-structured interview, there is a basic set of questions that stays the same but new questions can be brought up during the interview based on the responses of the person being interviewed.

A **questionnaire** consists of a set of questions written on paper, and usually requires respondents to tick boxes and write down answers to the questions. Alternatively, if the person cannot read and write, or if the questionnaire is long and detailed, the questions can be read out to the person and answers written down for them.

Surveys are studies that are conducted with the aim of understanding a certain situation, group of people or issue. Surveys use meetings, focus groups and questionnaires to collect information. The process of conducting a survey involves selecting the people to be surveyed (a “sample”), preparing the data collection process (e.g. organizing meetings and designing a questionnaire), collecting the data (e.g. convening the meetings and collecting completed questionnaires from the sample group surveyed), then analysing the data that was collected, preparing a summary of the findings of the analysis, and making conclusions based on that information. Most surveys are concluded by preparing a report that describes the methods used to collect the data and which presents the key findings (analysis of the data) and the conclusions.

Mapping is a method of collecting and combining data about geographical, economic, social and cultural factors regarding a particular situation, group, or issue. Data about social, cultural and economic factors (e.g. number of children per household, beliefs about the importance of education, level of income of each household, etc.) can be collected through questionnaires, interviews and focus groups; while data about geographical factors (distances between households and schools, type of roads, forms of transport available, etc.) can be collected from maps and government departments (e.g. department of roads and transport). When the various forms of data are combined and analysed, they together provide a spatial overview of the situation. This overview can then be presented in the form of charts and graphs that show the relationships between the various factors (e.g. children who do not attend school tend to be located far away from the schools).



In the case of Lok Jumbish, referred to earlier, a school mapping process was used to collect information about the village community. This mapping process involved undertaking a household survey using questionnaires to collect information. The survey involved going from house to house to talk to each household individually, ask them questions, listen to their answers and establish the educational status of all children in the 5 to 14 age group, and to register all of the children in a database. By identifying the status of every child, the process identified who needed what level of education (Govinda, 1999).

Different kinds of information gathering tools may be needed to achieve different purposes. It is important to use the right tools for each purpose.



5

Top down strategies that seek to force change on local communities are likely to fail. Instead, communities need to participate in change efforts as genuine partners. This involves engaging the community, explaining the policy or proposed change, listening to opinions, understanding any resistance, and enabling the community to suggest ways of overcoming the problems so as to achieve the desired changes.

Change is not only a technical task, it is an emotional and moral task. It requires trust, good relationships, transparency and openness. These take time to build but are worth spending time on to ensure the success of a microplanning exercise. Support in the form of training and encouragement can be provided to ensure that a microplanning exercise is successful in achieving its goals.

Tools such as meetings, focus groups and interviews can be used to collect the information needed for microplanners to understand contexts, views, needs and obstacles to change.

Case 1: Focus group process

(Mefalopoulos, 2008, p. 106)

“The invited individuals sit in a circle for face-to-face contact. A note taker sits outside the circle. The facilitator asks a set of questions aimed to start and guide the discussion. His or her task is to keep an open space to encourage input from everybody, while making sure that the discussion is not derailed by issues of no relevance to the scope of the focus group.”

Case 2: Technical education for rural development

(Kalbag, 2011)

Technical education and development centres were developed to be all-round development centres that would also be channels for the introduction of new technologies in rural areas. A rural technology course was designed for these rural technical schools. The course aimed to provide students with the skills and attitudes that they would find relevant to their future life. After completing school, some of the students may want to specialise in any one of the areas, and during such post-school training there will be guides or trainers for younger students. The technical education and development centres also provide open education opportunities for those who have dropped out of the present book-based system.

LEARNING FROM THE CASES:

- 1.** In Case 1, what do you notice about the structure of the focus group? What kind of training do you think would be required for the two people involved in running the group? If you were running the group, how would you explain the roles of the two people?
- 2.** The focus group will only involve a small number of people. What do you think is its purpose? If you wanted to have the views of a larger number of people, what tool would you use?
- 3.** Imagine that you would like a community to develop the same kind of school described in Case 2. What would be the first step you would take to engage the community in the initiative?
- 4.** If parents in your community complained that the schools in Case 2 were not academic enough, what would you do? Do you think a focus group would be a useful tool in this situation?
- 5.** How would you go about developing a shared vision so that the kind of school described in Case 2 becomes acceptable to the community? At what stage do you think this should be done in the change process?



EVALUATION TASKS

7



Why is it important to engage participants in the change process?



What skills do microplanners need to operate effectively as change agents in the community?



What might be the main elements to improve communication between the change agents and the community? Why are they important?



How would you ensure transparency in a microplanning exercise?



notes

8

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EDUCATION MICROPLANNING TOOLKIT

GETTING STARTED: INITIATING AN EDUCATION MICROPLANNING EXERCISE



2

MODULE 2

CONTENTS

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1

LEARNING OUTCOMES FOR THIS MODULE

- 1.1 Understand the planning process.
- 1.2 Become familiar with mechanisms for consulting stakeholders in an education microplanning exercise.
- 1.3 Become aware of the need to link education microplanning to the needs of local communities.
- 1.4 Identify the steps taken in initiating an education microplanning exercise.

STRUCTURE OF THE TOOLKIT

2

Introductory Module

Provides an introduction to education microplanning, the functions it can serve and examples.

Module 1

Principles of microplanning: Working with communities

Focus: Working with local communities – building partnerships.

Module 2

Getting started: Initiating an education microplanning exercise

Focus: Getting prepared for an education planning exercise at the local level: spatial, social, economic and educational considerations.

Module 3

Conducting a needs assessment – instruments, data collection and analysis.

Focus: Getting to understand local needs through engaging communities in planning and building capacity.

Module 4

Enhancing curriculum and teaching processes to improve student learning

Focus: Getting to understand the planning, implementation and evaluation processes that contribute to successful student learning.

Module 5

Data and information for decision-making and planning

Focus: Using data for understanding and improving education at the local level: assessing the outcomes of planning in areas such as access, participation and learning.

3

This module will focus on the processes that are necessary to initiate an education microplanning exercise. It assumes that any mandate for education microplanning will come from a national policy priority that needs to be implemented at the local level – either across a district or within a single local community or school.

In a microplanning exercise, the task of the microplanning team is to find the common ground between the policy requirements and local needs. The team needs to engage the community and identify the concerns and needs while seeking the community members' inputs and enabling them to be part of the solution.

There are many different purposes for undertaking an education microplanning exercise. These could include developing a locally relevant curriculum, increasing school attendance among girls, reducing the number of school drop-outs, and establishing technology learning centres.

In any case, the keys to success are ensuring the microplanning team is well prepared, engaging the local community from the very beginning, and conducting a participatory diagnosis of community concerns and needs.

4.1 Revision: What is education microplanning?

The Education Microplanning Toolkit uses the following definition:

Education microplanning - education planning at the local (“micro”) level - is a holistic and participatory approach to local-level planning and decision-making. While it is focused on the local level, it is linked to national and sub-national education policy directions.

Education microplanning involves managing change – whether it is related to new teaching strategies or the introduction of non-formal education. Change can be intimidating, so the processes used to bring about change need to be very carefully considered. The trust and confidence of the local community must be gained.

4.2 The preparation process

As noted in Module 1, any microplanning exercise involves engaging the local community and seeking their views and solutions to issues. At the same time, it is important to remember that there is a broad education policy to achieve or a goal that needs to be reached.

As will be shown throughout this module, education microplanning is a process that seeks to connect broad policy objectives to local contexts. The assumption is that action needs to be taken at the local level if such policy objectives are to be implemented.



The desired outcome of any education microplanning process is a specific action plan. Such a plan needs to contain:

- ➔ Achievable objectives.
- ➔ Clearly stated actions that will move the community towards those objectives.
- ➔ A monitoring process that will allow the community to be able to monitor the progress it is making towards the objectives.

The task for the microplanners is to set the community on a pathway that will lead to the successful development of an action plan. What follows are suggested steps that can assist in achieving that outcome.

Figure 1: The preparation process



4.3 Training of microplanners

Whoever is responsible for the microplanning exercise needs to ensure that all those involved (e.g. the district and provincial education officers, consultants, volunteers) are well acquainted with the requirements of the initiative as well as the principles of participatory planning.

Training workshops can be used at the beginning of the project to prepare the microplanning team. In particular, all team members should be well briefed on the requirements of the initiative that is to be implemented. This includes the legislative framework (if any), the specific policy requirements, the timeline for implementation, the available resources, the specific deliverables that are required and the main lines of responsibility. The outcome should be a shared understanding of the initiative. It is important to highlight the importance of learning from the community. The microplanning team should be introduced to the idea of participatory planning. The very simple idea behind participatory planning is that all stakeholders need to be involved in preparing the action plans to implement policies at the local level. For example, when district officers are preparing to undertake a microplanning exercise to implement a district policy at the community level, it is important to ensure that they understand they are implementing the exercise “with” the community. It is not an exercise that is done “to” the community. During the training workshop the team (or teams) can start the process of collecting whatever official information is available on the areas or the communities for which they will have responsibility.

4.4 Community preparation

Once the team is ready to work with the community, strategies need to be developed to enable the team to both talk with and listen to community members. At this point, the development of the action plan is a secondary issue. The main priority of these initial contacts is to communicate with the community and, through such communication, to develop relationships, build trust and confidence in the community. A particular outcome for this phase should be the identification of community members who will work in the community to support the exercise. Such people will need training.

The communication process involves providing information to the community about the policy or proposed change. In a case in Bihar, India, for example (NIEPA, 1997) reference is made to “environment building” in which the entire village is made aware of the initiative as well as its importance. In Bihar, the “environment building” exercise was particularly



effective because it embraced locally-appropriate platforms for communication. The process included: wall writing, padayatras (communicating with people as part of the journey), and panchayat meetings (political group meetings). The process was developed to match the local context by adapting to the communication styles used by the community. During the “environment building” exercise, change agents who represented disadvantaged parts of the community were also identified, they became prekaks (trainers) for the initiative – one third of the prekaks were women.

These informal processes engage the community. The microplanning team should then select from them “champions” who will be able to be the spokespeople for the initiative being planned. These “champions” are then given formal training for the roles they will be asked to play in the community, and subsequently can become the spokespeople for the change in their communities. In this way, responsibility for the change is located in the community itself.

This same approach can be applied when the proposed change comes from within or outside the community. An externally-initiated change could be, for example, a policy established by the national government. There are two key questions to be asked by the microplanning team:

- ➔ How should communication with the community take place about the policy?
- ➔ What are the views of the local community with regard to the matter?

4.5 Developing structures

Once the team and the community have been prepared, it is important to set up a structure or group that allows sharing and taking responsibility for implementing the action plan, and monitoring and evaluating the progress. The group might be a Village Education Committee made up of local representatives, or an existing political or social structure. It is also important to have community leaders involved in the implementation of the initiative.

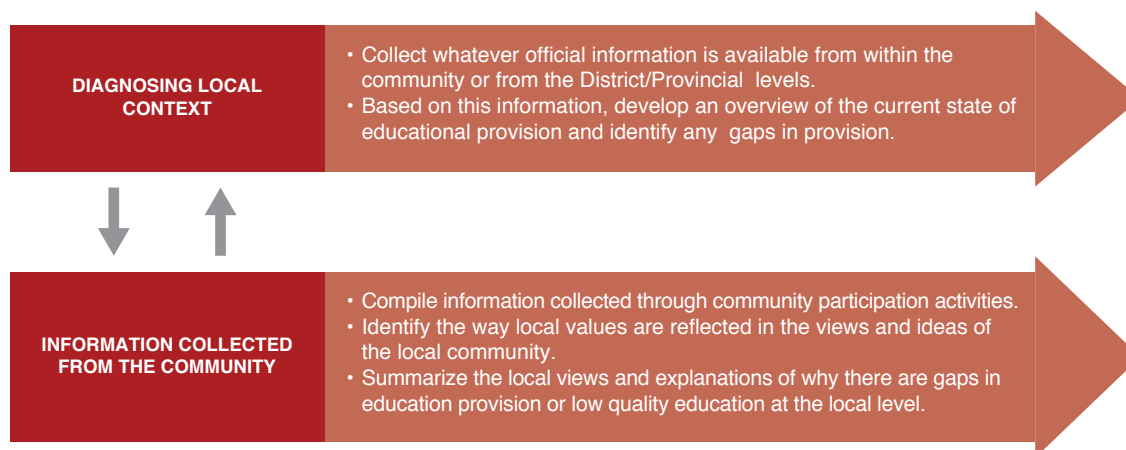
4.6 Diagnosing local needs

The microplanning team needs to then assess the needs of the community. At this initial stage, the diagnosis provides a simple snapshot of the community and its needs. The following questions will help identify the needs of the community:

- ➔ What administrative and political structures are in place to support the initiative?
- ➔ What are the characteristics of current educational provision? (e.g. education facilities, teachers and assistants, curriculum, students – both in school and out of school).
- ➔ What are the major social and cultural characteristics of the community that might impact on the initiative (e.g. gender issues, family structures, leadership roles, religious orientation).
- ➔ How does the community support itself economically? Who is involved and are there any implications for schools and schooling?

These types of information might already be available as part of the official school census, in district level files or databases or in schools. The school principal and school staff can play a very important role in providing an understanding of the local context. It is important to collect the available technical information (i.e. number of schools, number of teachers, number of students, curriculum, completion rates, graduate employment rates etc.) and later reconcile this information with community perceptions and values. There is a connection between the technical information and what will be learned during the community participation activities. The types of information are shown in the figure below.

Figure 2: The types of information used in microplanning



This is not the only time the microplanning team collects information. As the project progresses it may be necessary to collect detailed information about specific aspects of education in the local area (e.g. the actual number of students who attend schools and their attendance pattern, the way a particular school facility is being used, the demand for school graduates among local employers, etc.). The purpose of this initial diagnosis is to have some baseline information on which change ideas can be generated.

4.7 Collecting information from the community

Activities to collect information about the community can take many different forms. Note, for example, in the Bihar case cited above (see 4.4) that the methods chosen were consistent with the cultural values of the community. The purpose of any method chosen is to facilitate understanding of the situation, and the views and concerns of the community members.

Some possible methods are:

- ➔ Meetings – some with community leaders but, importantly, meetings in which the whole community is involved.
- ➔ Semi-structured interviews with relevant samples of community members.
- ➔ Informal interviews and daily interactions.

- ➡ Direct observations by the team (see Mercado, 2006, p. 6 for more information on this method).
- ➡ Focus group discussions.
- ➡ Participatory mapping (see <http://cec.vcn.bc.ca/cmp/modules/par-tech.htm>).
- ➡ Social media (for an introduction to this relatively new application as a planning tool, see Abukhater, 2011).

The methods are not mutually exclusive – they can be used in various combinations to secure the goals of participation, engagement and learning.

As mentioned earlier, the social and cultural contexts in which these methods are used must be kept in mind. For example, in Cambodia village chiefs host commune-level meetings where villagers convene and identify the needs in their communities and prioritize them. The results of these meetings make up the Commune Development Plan (CDP). District Integration Workshops are held each year and these serve as a place where commune councilors present the five-year Commune Development Plan and meet with others to discuss progress on the previous year's activities. The various CDPs comprise the multi-year Commune Investment Programme which feeds into the priorities of the national budget. Identifying these local structures is an important task for the microplanning team so that local processes can be respected.

When presenting information, photographs can be used to illustrate key points, important activities, and creative re-enactments of community issues. For example: using before and after images of school building rehabilitation projects (see Rietbergen-McCracken and Narayan, 1998).

4.8 Capacity building of local community members

Training of local community members is another important stage. Participatory education planning requires identifying community members committed to making the government more responsive to community needs and then assisting these community members to gain the capacity to facilitate community participation. It should never be assumed that rules, processes, protocols and skills are known by everyone. Pre-activity guidance and clear



notes

communication of expectations should always be factored in before any activity is initiated. Community members who are to act as “champions” will need formal training. Training workshops need to be organized to acquaint them with their role and equip them with facilitation and negotiation skills. These new skills will be useful not only for a specific microplanning exercise but will be transferable to other contexts. The identified change agents should also be responsible for ensuring all members of their communities are able to participate in the microplanning exercise.

4.9 Checklist

It is often a good idea to have a checklist to make sure that all key stages have been covered. The following questions might help to construct such a checklist:

- ➔ Has the microplanning exercise’s scope been defined?
- ➔ Have all the stakeholders been identified?
- ➔ Have local leaders and “champions” been identified and trained?
- ➔ Have major issues of possible contention been identified?
- ➔ Is there a written agreement about the priorities and directions of the action plan?
- ➔ Have specific activities in the action plan been agreed?
- ➔ Have the costs of the activities been identified?
- ➔ Has an assessment been made of whether external requirements (policies, mandates, etc.) can be met?

There may be some issues that have not been completed by the end of the initiation phase – these should be noted and follow up actions taken to ensure priorities can be met.

The initiation phase of an education microplanning exercise provides the foundation for the remainder of the exercise. The diagnosis of community needs provides a snapshot of the community context. Then information is collected about opinions, issues and solutions through communication with community members, including discussions and debates. This involves some presentation by the microplanning team of the main policy elements, but it mainly involves listening to community members and responding to the issues they raise. In this way, the issues are addressed at the community level.

The project team needs to be fully prepared before communication and information-collection activities begin with the community. The community members who become project “champions” also need training to ensure that they are aware of their leadership roles and equipped with facilitation and information-collection skills.

In terms of community participation activities, there are many options from which to choose. Select those activities that suit the community, using existing structures where possible.

6

Case 1: **Community mobilization**

ADB, Tajikistan: Education Sector Reform Project

The Asian Development Bank (ADB) and the government of Tajikistan launched an education reform project in 2003, in which community stakeholders were encouraged to take charge of the educational well-being of their children. The project supported community mobilization in pilot districts through advocacy campaigns and organization and training of Parent Teacher Association (PTA) members on their duties and responsibilities. PTAs were established in 237 schools. The project helped institutionalize the PTAs with a formal structure and clear definition of roles and responsibilities, and followed this with a series of training programmes on the roles of PTAs. This training focused on enabling the PTAs to perform their roles more effectively. The PTA chairs affirmed that the establishment of PTAs brought about a positive change in attitudes of parents toward getting involved in the education of their children and in the affairs of their children's schools.

Case 2: **Participatory Microplanning**

Coady International Institute. *An Asset-based Approach to Community Development: A Manual for Village Organizers*, p.17

The purpose of the Self Employed Women's Association (SEWA) Jeevika programme is to empower whole villages to independently manage and maintain projects. When the SEWA went to the village of Fatehpur to introduce the Jeevika programme, the first priority was



to establish a Village Development Committee to be responsible for the implementation of SEWA Jeevika initiatives. They also called a village meeting (gram sabha) to communicate with all the villagers. Before this meeting about SEWA Jeevika, however, they began communicating the purpose of the Jeevika process and its value for the villagers. The Village Organizers and District Coordinators visited the village three times to explain the concept before the first village meeting was held. During these visits, Village Organizers visited every house in the village encouraging people, especially those from poorer areas, to attend the village meeting. Three village meetings were held with the villagers, following which the villagers agreed that they would like to start the Jeevika process in their village

LEARNING FROM THE CASES:

- 1.** What is the role and function of the Parent Teacher Associations (PTAs) in the Tajikistan case? How does it relate to the principles of participative planning?
- 2.** Why do you think training was provided to the PTAs? What is the function of this kind of training?
- 3.** How do you think the project team might have been prepared before their initial visit to Fatehpur, the village in Case 2? What kind of information might they have collected about the village before that visit?
- 4.** How do you think the project team might have communicated with community members? First, to encourage them to attend the meeting and then at the meeting itself?

7



Draw a diagram to show all the steps to be covered during the initiation phase and provide a timeline to show how much time might be needed for this phase.



Several kinds of training and workshops are required in initiating a microplanning activity. Identify where training is generally required and ways these workshops might be run. For example, what differences might there be between a staff training workshop and a workshop for community members?



Why is it useful to understand the culture and viewpoints of the community in which you were working?



Why do you think there might be resistance to change in a community? How would you respond to community members in a meeting if it seemed they were opposed to a proposed policy or change?



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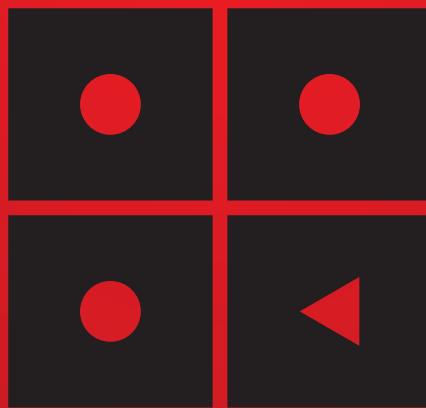
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EDUCATION MICROPLANNING TOOLKIT

CONDUCTING A NEEDS ASSESSMENT: INSTRUMENTS, DATA COLLECTION AND ANALYSIS



3

MODULE 3

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1

LEARNING OUTCOMES FOR THIS MODULE

- 1.1 Be able to identify community needs.
- 1.2 Use effective data collection methods.
- 1.3 Become familiar with data analysis techniques.
- 1.4 Appreciate the importance of community participation in data collection.

STRUCTURE OF THE TOOLKIT

2

Introductory Module

Provides an introduction to education microplanning, the functions it can serve and examples.

Module 1

Principles of microplanning: Working with communities

Focus: Working with local communities – building partnerships.

Module 2

Getting started: Initiating an education microplanning exercise

Focus: Getting prepared for an education planning exercise at the local level: spatial, social, economic and educational considerations.

Module 3

Conducting a needs assessment – instruments, data collection and analysis.

Focus: Getting to understand local needs through engaging communities in planning and building capacity.

Module 4

Enhancing curriculum and teaching processes to improve student learning

Focus: Getting to understand the planning, implementation and evaluation processes that contribute to successful student learning.

Module 5

Data and information for decision-making and planning

Focus: Using data for understanding and improving education at the local level: assessing the outcomes of planning in areas such as access, participation and learning.

3

This module will explain the process of conducting a needs assessment, which is part of microplanning. The process includes the steps to be taken to identify community needs and perspectives as the basis for designing actions to meet those needs. It outlines information collection processes, discusses data analysis techniques and suggests the elements to be included in a needs assessment report.

There are various methods and tools that can be used, so microplanners must carefully consider the context, capacity and resources of the community that educational changes are being planned with. As with other aspects of education microplanning, community participation is central to the needs assessment process and once again exerts a strong influence on the education planning exercise conducted at the local level.

NEEDS ASSESSMENT – PROCESSES, TECHNIQUES AND OUTPUTS

4

Developing a plan for educational change and reform at the local level (education microplanning) requires three main processes:

- ➔ Engaging the community in decision-making (Module 1).
- ➔ Getting the microplanning team and community prepared for the change initiative (Module 2).
- ➔ Using data and evidence to understand local needs and perspectives and from there making action plans that will help to address the education-related issues, for the benefit of the community (Module 3).

A needs assessment is conducted to gather relevant information regarding people's needs and views in relation to a particular issue. Once the information is collected, analyses derived from this assessment can be used as the basis for developing solutions to the problems or issues.

There is no single method for conducting a needs assessment. In some contexts, more informal approaches might be necessary. In other cases, more complex technical tools can be used, for example school mapping and education policy and finance simulation models.

The processes used will depend on:

- ➔ Local contexts.
- ➔ Local organizational structures.
- ➔ Availability of skills in the planning team and in the community.
- ➔ Amount of time available.
- ➔ Resources (financial and other).



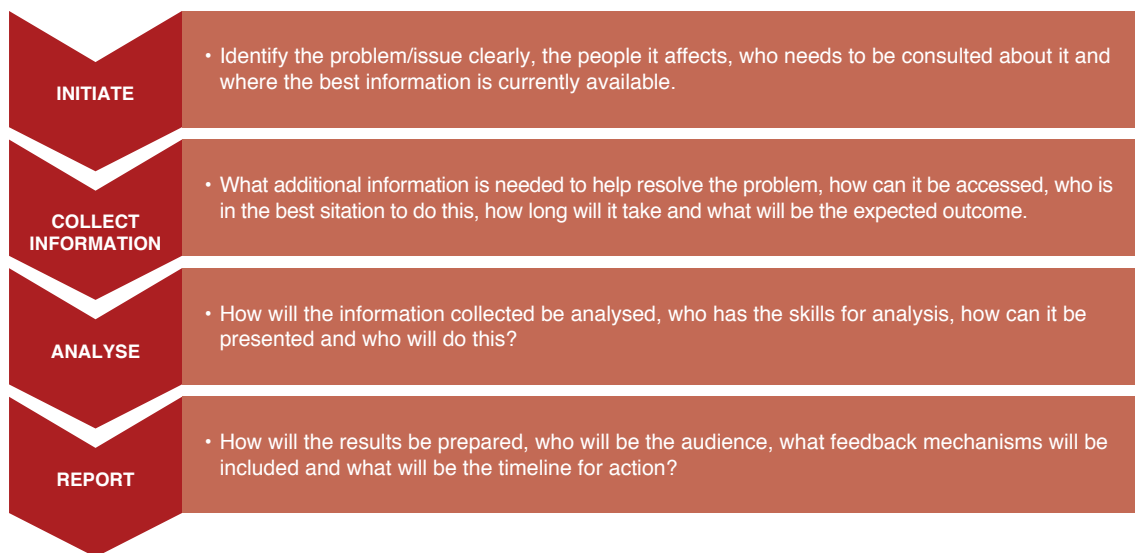
Consistent with the participatory nature of education planning at the local level, a needs assessment should not be regarded as a process to be done “for” or “to” the community. Rather it should be seen as a process to be done “with” the community, taking into account local values and seeking to address real needs and priorities as they are seen locally.

It is easier to understand a needs assessment process if it is explained in relation to a specific issue or problem. So the remainder of this module will describe needs assessment processes in relation to the “real world” issue outlined in the following scenario:

National education policy in country X, in line with the Millennium Development Goals (MDGs) for education, has mandated that primary education will be available to all students and will be compulsory. Yet national school enrolment figures indicate that across the country, enrolment rates range from 50 to 90 per cent. The government wishes to see immediate improvements and this has become a priority for the national ministry of education as well as provincial governments. The latter have asked district offices to investigate the situation in their jurisdictions and prepare action plans that will bring about improvements.

Figure 1 illustrates the four main steps of the needs assessment process. The steps are described in detail in the sections that follow, for the scenario presented above.

Figure 1: A Needs Assessment Process: Initiate, Collect Information, Analyse, Report



4.1 Initiate

4.1.1 Understanding the community: Community scoping¹

In order to put into effect the national government’s priority (universal primary education) at the local level, district offices will need to work with the villages and communities for whom they have responsibility. To work with the community, they need to get to know and understand the community.

This can be achieved by carrying out an informal community scoping exercise. The purpose of this is to become familiar with the community with which the education microplanning team will work. It is assumed here that this is the first time the team has worked with the community.

Community scoping involves developing a relationship with community members, understanding their values, needs and priorities and establishing a process of working with them. This scoping process involves most of the following activities, depending on the local context:

- ➡ Identifying key people in the community who can support the needs assessment and be “champions” in the microplanning process: elders, political leaders, religious leaders, business owners, parents, teachers, principals, etc.
- ➡ Meeting with these people and explaining the purpose of the planning exercise, seeking their views, encouraging them to lend their support.
- ➡ Attending community events to get to know a larger number of people in the community.

¹ “Community scoping” is a term used by RECOUP’s Qualitative Research Skills Facilitator’s Manual. It refers to the need for researchers and planners to understand the communities in which they will work and, in an important sense, to work “with” these communities. Many of the ideas in this section have been adapted from the manual and its resources.

- ➡ Observing activities in the daily life of the community, noting what is important and their values and priorities. In particular, trying to understand the role education plays in the community and what the competing priorities are in families' lives. Joining in the daily life of the community can be a way to alert the team of particular issues in the community that might affect school attendance and the quality of learning.
- ➡ Informal notes can be made concerning existing education infrastructure and provision through observing what is happening on a daily basis and keeping a record that can be compared to other data that might be collected during the process. Where there are two or three team members in the microplanning team, these kinds of observations can be shared within the team to develop a fuller picture of community values.

Through these different kinds of “scoping” activities, planning teams from the district office can get to know the communities in which they will be working and may even be able to identify some key issues at this early stage of the process. During the community scoping process, it is useful for team members to share notes, impressions and ideas to develop a shared understanding of the community in question. It should not be expected that there will be complete agreement among team members at this stage because community scoping is a very impressionistic process and different experiences may yield different impressions. By the end of this process, team members should have some ideas about the communities with which they will work.

4.1.2 Review existing information

A needs assessment involves collection of information, thus it is necessary to identify prior to undertaking the assessment whether any information about the problem is already available and where it can be found. In the scenario presented above, information about the local participation rate and other information about the community can be obtained from both “external” and “internal” sources.

“External” sources of data can include official government statistical data (e.g. population census, school census) and records, and previous needs assessments carried out by the district office, aid agencies and non-governmental organizations. At the national or provincial levels there may be an information management system that contains useful information about local population characteristics (number of households or families, number of school-aged children, school attendance rates, out-of-school children, etc.).

“Internal” sources of data include statistical reports and other data available in schools. These can include data on school attendance rates, teacher and student absenteeism, class size, class composition (boys/girls/ethnic mix) and the curriculum. Schools will also usually have assessment records and other information about student progress and achievement at key stages of schooling. Schools will probably also be able to provide information on parent-teacher associations, school management committees, school audits and evaluations, and an inventory of school facilities.

These existing data can provide the microplanning team with an overview of education provision in the community.

4.1.3 Formulate the problem in its local context

The general issue noted above was a national problem: low participation in primary education. The national policy aims to achieve universal primary education (full participation). The national participation rate is an average of the figures for all districts (e.g. 84 per cent); this national figure may not reflect the local context. Some communities may have very high participation rates while others may have very low ones. It is therefore important to define the issue as it exists locally and find out the local participation rate (enrolment/attendance rate). From the review of the existing data (see section 4.1.2 above), it may be found that the local net enrolment rate (the share of children of official primary school age that are enrolled in primary school) is only 65 per cent. Thus, the problem in the local context is the non-attendance of 35 per cent of the district’s primary school-aged children. It may be possible to pick up some initial observations and impressions from the community scoping process to further explain the local context of this problem. In this case, the characteristics of the community itself – rural, urban, well off, poor, or multicultural can further describe the non-attendance of the 35 per cent of primary school-aged children.

4.2 Collect information

As noted in previous modules, there are many ways and tools to collect information. Some of them include:

- ➔ Questionnaires
- ➔ Interviews
- ➔ Focus groups
- ➔ Observation

This module uses the example of the level of participation of local school-aged children in primary education. The tools listed above can be used to collect information to address this particular issue. They are explained in detail below.

4.2.1 Questionnaires

Questionnaires are very useful instruments for information collection when you want to:

- ➔ Ask a large number of people exactly the same questions.
- ➔ Observe the response patterns from different groups of people.
- ➔ Make a multivariable analysis² of the responses from a relatively large number of people.

² An analytical method for defining the relative contributions of different causes to a single problem or issue.

Designing the questionnaire

When developing your own questionnaire, keep in mind the following points:

- First, identify the information you need and thus the questions you expect the answers for.

If the key purpose is to find out about school participation, the main questions in the questionnaire will revolve around children's attendance at school. Keep in mind that families usually have more than one child, and they may treat the children differently depending on their birth order, gender, etc., so questions have to be asked that gather information about all of the children (e.g. How many of your children attend school? If any children don't attend school, what are the ages and gender of these children? Why don't they attend school? Would you like them to attend school?).

- For very important information, think of different ways to ask the same question and include the different ways in the questionnaire.

This will allow you to cross-check the information (e.g. you can cross-check whether children attend school every day by asking the following questions: Which days does your oldest child go to school? Does he/she stay home some days to do his/her household tasks?).

- Ask questions in the simplest, most jargon-free way possible, so they will be easy to understand.
- Avoid asking questions that require a judgment to be made, unless you have the time, capacity and resources to analyse the varied responses.

Information that is quantified is easiest to analyse. In this case, the focus should be on factual information, with the questions designed in such a way that the answers will be very clear, with no room for ambiguity or interpretation.

- Keep the response categories simple so that responses can be easily interpreted.
- Try not to add more questions unless you are sure you need to know the answers: the extra information that has been collected may not be useful, so it would be a waste of time and effort to collect it.
- Keep the questionnaire short (maximum two pages), so that it will be quick and easy to fill in and so that it will be quick to enter the data from each questionnaire into a relational database.

Data entry is necessary so that it can be analysed and organized so as to produce a list of respondents and summary statistics. More details about data analysis are provided in section 4.3.

It is best to design the questionnaire yourself, but it can be helpful to use one that already exists. An example of a questionnaire is included in Appendix A.

Administering the questionnaire

Questionnaires can be mailed out to the respondents and either returned by mail or picked up by those responsible for administering it. But it is often more effective to deliver a house-to-house questionnaire in person. In this case, team members take the questionnaire to each house and get household members to respond to it while they wait. This is a more time consuming process but it has the following advantages:

- ➔ You can get more questionnaires filled in.
- ➔ Where household members have questions about the questionnaire, those questions can be answered immediately.
- ➔ If household members do not have the literacy skills to respond to the questionnaire, it can be administered orally with the help of a team member.

It may not always be possible for people to complete the questionnaire while the team member waits, in which case a mutually agreed-upon time can be arranged for the questionnaire to be picked up later. This raises the question of timing and the team will need to work out the best time to administer the survey. Evenings may be a good time because all family members are likely to be at home at this time. Again, this depends on the context, which the team members should get to know during the scoping exercise.

4.2.2 Interviews

Imagine that you have completed the questionnaires and have now formed a picture of primary school attendance in the community. You can see from the information collected that:

- ➔ More boys than girls attend school.

- Children from families that work on farms tend to attend schools less regularly than those from families that work off-farm.
- The day with the lowest attendance is consistently Fridays.

The above observations can tell you what the overall issues might be (gender inequity; difficulties in accessing education by children from farming families; etc.), but they do not explain precisely why some children attend school and some do not, and this data does not provide solutions to the problem. This is where the interviews come in. They can help to find explanations for the situation and potential solutions. So, who should you interview and how should you interview them?

In the context of the issue that we are exploring in this module, it would make sense to interview some parents of the children who do not attend school regularly and find out why their children do not attend school. It might also be useful to interview teachers and ask similar questions. Finally it can be useful to interview the students themselves. Collecting this information from different sources (parents, teachers and students) will allow you to cross-check the explanations and solutions to the issues that you are given by the different groups. How many people you interview will depend on the resources (staff, funds, time) you have and the availability of the people you want to interview. You may not need to interview all the people who completed the questionnaire but you can select from the responses where you think you will get the best follow up information.

There are two main ways to conduct interviews.

- You can develop a list of questions and ask the same questions to all the people you interview. This is called a structured interview.
- You can have some questions prepared for the interviews but also follow up the issues that are raised during the interview and ask additional questions. This requires listening very closely to the responses. The additional questions should aim to find out more about specific responses. This is called a semi-structured interview.

The method you choose will depend on what you want to find out, the access you have to the people you wish to interview and the time available to undertake the interviews. The purpose, however, remains consistent: to identify views and ideas that help explain why things are the way they are, and help to solve the problems.

Attention should be paid to keeping records of the interviews because the results of each interview will need to be analysed. There are several ways to keep records, including note taking and using a recording device (voice or video). If interviews are recorded, they may need to be transcribed into written form for later analysis. Analysis of interview data is discussed in section 4.4.

4.2.3 Focus groups

A focus group is like an interview in that you prepare questions, but instead of talking to people individually, you ask people to join a group in which you will ask the questions to the group as a whole, and anyone can provide a response. Members of the group can also comment on each other's responses so that you can generate a debate and get multiple perspectives. The analysis of the focus group responses is discussed in section 4.4 of this module.

4.2.4 Observation

Seeing things first hand can be a useful way to collect information and a way for the planning team to gain a good understanding of the local context. Observation involves exploring a context without necessarily knowing what you are looking for.

Given our interest in participation rates in primary schools, it is sensible to carry out some observations inside and around the primary school(s). Some simple things to look for might be:

- ➔ Location: Is the school easily accessible for all students?
- ➔ Schedule: Are there classes five days per week? Which days? Is there a regular start and finish time for the school day and is it observed by all students and teachers?
- ➔ Facilities and services: Are facilities in the school well maintained? Are the toilets clean? Do boys and girls have separate toilets? Do the children receive meals and drinking water at school? Are there any recreational spaces and are these spaces “child-friendly” (safe, sheltered, fun, etc.?)
- ➔ Teaching and learning context: What is the average class size? Are there adequate teaching and learning resources? Do children and teachers have easy access to these resources? Are computer rooms, libraries, etc easily accessible all the time? How would you describe the teaching methods in the school? Do teachers use “rote learning” or participatory methods?

Other questions will come to you as you spend time in the school. Observations made on site can provide important insights into the daily life and operations of the people in the community and bring to life the findings of questionnaires, interviews and focus groups. And you may discover things that were not mentioned in the questionnaires, interviews and focus groups.



notes

Observations need to be systematically recorded using simple notes (“field notes”) written or recorded (verbally or via camera or video) during the observation visit. These notes can then be shared with other team members and compared with their records.

4.3 Analysis

4.3.1 Analysis of the data

After collecting the information – the questionnaires, the interviews and focus groups with parents, teachers and students and the records from observations at the local school(s) and in the community – the next task is to make sense of all this information. This is the role of analysis. It draws out useful information from the data. The different types of data are analysed as follows.

Questionnaire: The questionnaire will provide figures such as how many school-aged children are in the household, how many days each child goes to school, etc. These figures can then be summarised and a conclusion can be drawn, e.g. A total of 1,203 school-aged children go to school full-time (five days per week). The total number of school-aged children in the community is 1,967. Therefore, according to the findings of the questionnaire 61 per cent of school-aged children attend school full-time. This figure can then be cross-checked with the net enrolment and attendance figures. If there are any major discrepancies, these should be investigated. Look for patterns both within the groups and across the groups. For example, do the students agree with one another and are their views the same as the views expressed by the parents?

If you have access to computer technology, there are several database programs that can be helpful in analysing data. These programs include Microsoft Access and the Statistical Product and Service Solutions (SPSS) software package. Access allows users to create a database and conduct simple statistical analyses. SPSS allows more complex analyses. Both programs require some training to operate. Your choice may depend on what skills and funds are available. If these programs are not available, but computer facilities are, then you can use spreadsheets such as Microsoft Excel to compile the data and create tables and graphs. If there is no computer technology available then you can analyse the information and record the results manually using a tally sheet. The information can be transferred from each questionnaire onto the tally sheet to get overall figures for the community. If the community is not large, this can be a simple and effective way to get basic statistics (e.g. percentage of school-aged children in the community attending school full-time; percentage of parents

who keep children home from school to assist with household duties).

Interviews and focus groups: The written notes and transcripts of interviews and focus groups are not as easy to analyse as statistical data collected through questionnaires. Computer programs are available to analyse such data, but they are probably not very helpful for our purposes. Without such software, you can analyse interviews as follows:

- ➡ Read the notes and transcripts carefully and try to identify the themes or the main ideas.

What are the participants saying that explains why children do not go to school? Is there agreement about the issues or do different people have different opinions? Are the responses of the different groups who were interviewed (parents, teachers and students) the same? As with the questionnaire data, look for patterns both within the groups and across the groups. Remain open to different responses, as you want to get as accurate an understanding as possible.

- ➡ The notes and transcripts should be read by at least two people and the resulting analyses compared.

This helps to make sure each analysis is accurate. Where there are disagreements between the different analyses, the analysts should discuss their reasons and reach an agreement.

Analysing interview and focus group data is a time-consuming process, especially where there have been multiple interviews conducted by different members of the team. The purpose is to develop a clear understanding of the community views on the issue. Of course, community members usually do not have the same views on issues and the interviews and focus group discussions may reflect this.

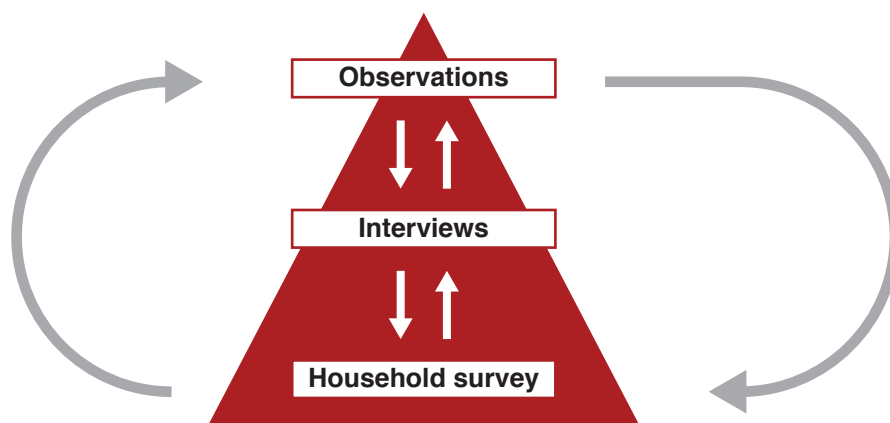
After reviewing all the data collected from the interviews and focus groups, a list can be made of the key points that have been made and where there are agreements and disagreements among community members. This provides a summary of the interviews and focus group discussions.

Observations: As indicated earlier, observations are recorded in field notes or recordings. Where different members of the team have been engaged in observations then the field notes can be compared in much the same way as the interview and focus group notes and transcripts. It is quite likely that observations will not be the same because people see things differently. Nevertheless, the team members who did the observations can sit together and discuss both the field notes and anything else from their observations they can recall. To summarise the main issues coming out of the observations, a list can be drawn up with notes made where observers agree or disagree about a particular point. Again, the purpose is to develop an understanding of the key issues. For the scenario examined in this module, the focus is on understanding the reasons why there is not 100 per cent enrolment and attendance in primary school.



4.3.2 Putting it all together

At the end of these processes you need to cross-check all of the information from different sources.



The purpose of cross-checking is to assess whether and why there might be inconsistencies between the sources of information. Parents may have reasons for not sending their children to school that are not understood by teachers. Parents may want to keep children at home to work on their farm or to do household chores, but teachers may think students are not coming to school because they are not interested in learning. It is important to interview different groups and cross-check the information because otherwise you would not get a correct understanding of the problem and would not see that the teachers and parents have different perspectives on the same issue. In this particular case, it may be necessary to explain to the teachers the reasons given by parents for keeping children home. It may also be necessary to find ways to encourage parents to send children to school more often. If the main reason for some children not attending school on Fridays is that it is a religious day, then classes might be re-scheduled so that classes are held on Saturdays or Sundays. If children are not going to school because they themselves and their families do not regard schools relevant, then the school curriculum might need to be reviewed. If the school is too far away from children's houses, some thought will need to be given to a different location. These, and other issues and solutions, are likely to have emerged from the survey, interviews and observations.

4.4 Report

Once you have cross-checked the information and identified the main issues relating to the participation rate issue as well as suggestions given by the community for how the issue can be addressed, you will need to prepare a report that summarizes the findings and provides recommendations for actions. The key issue after collecting the data and identifying the solutions is to provide the information necessary for preparing an action plan. This is an important purpose of the report.

In this case, the report should provide data relating to the local participation rate in primary school and the reasons why children do not attend school, and should suggest ways to address the issue so that the participation rate can be improved.

Report Outline

- ➔ Description of the issue
- ➔ Information collected (key data, major reasons given for the problem and most commonly suggested solutions) and from whom
- ➔ Analysis of the information – describe how it was analysed as well as the outcomes of the analysis
- ➔ Conclusions
- ➔ Recommended actions to address the identified problem(s)

The report will have several audiences (readers):

- ➔ Parents
- ➔ Students
- ➔ Teachers
- ➔ The district office
- ➔ Team members

While the main audience for the report might be the management at the district office, it is also important to provide the people who have participated in the needs assessment (parents, teachers and children, etc.) with information about the results. This can also be an important way to get further feedback from the stakeholders in the community. For the district office, the report is probably best provided in written form, but for community members the findings of the report could be conveyed at a public meeting or in small groups.



notes



5

This module has introduced processes for needs assessment that help to identify the perceptions of the community regarding a particular issue and possible solutions to it. The process involves four steps:

- ➔ Initiate
- ➔ Collect information
- ➔ Analyse
- ➔ Report

As with other processes referred to in this toolkit, needs assessment should be done with the community rather than to the community. Planning teams need to spend time in local communities to get to know people, explain what they are doing and take advice from community members. The kinds of changes recommended as part of an education microplanning initiative depend on the community participation in the initiative. The more input the community has, the more likely the education issues will be addressed.

Case 1: Lok Jumbish school mapping

School mapping is a type of needs assessment survey. One way school mapping can be used is to identify whether there are an optimum number of schools for the population, so that schools are accessible and provide sufficient services.

An example of school mapping comes from India: The school mapping process in Lok Jumbish involved collecting information from every household in the village. The focus was on mapping all school-going children within each village in terms of their school participation (enrolment and attendance) status and their geographical distance from the schools. The mapping process aimed to locate all the children of school going age and find out if they were attending school, and to also find out the exact reasons for their non-participation. (Govinda, 1999, p.38)

Other examples of school mapping have adopted technology such as geographic information systems (GIS) software; because this software allows the planners to precisely measure the locations of schools in relation to the locations of the school children's houses. It also allows spatial data to be linked to population census data, transport data, health planning data etc. to provide a comprehensive visual overview of a community (Hite, 2008. p.8). This kind of needs assessment may be more easily managed with help of central authorities rather than local authorities and requires considerable skills and resources. While it can be useful at the local level, it is not always easy for local communities to manage a technically-complex planning process.



notes

Case 2: Needs assessment in the city of Mekelle, Ethiopia

The objectives of this needs assessment were to evaluate the major education challenges in Mekelle and to assess the city's prospects for achieving the education MDGs by 2015. The education MDGs are: to achieve universal primary education (MDG 2) and to attain gender parity for girls at all education levels (MDG 3) by 2015. A needs assessment was conducted that collected quantitative data from education officials in Mekelle and the capital city of Addis Ababa, and collected qualitative data through in interviews with teachers, non-governmental organizations (NGOs) and education government officials. The interviews conducted by the researchers provided insights into challenges in the education sector and what needs to be done to address those challenges. The analysis of the data collected through the needs assessment used an Excel-based tool developed by UNESCO, known as the Education Policy and Strategy Simulation (or EPSSIM). From the data analysis, the planners projected student enrolments, determined staffing and facility requirements and estimated financial resource requirements.

A limitation of the data collected from officials was that, because of their positions, some officials were unable to fully disclose their ideas and opinions. Representatives of non-government organizations were able to be more forthcoming. Another limitation was that schools were on summer break during the six weeks when the research was conducted, so although visits were made to the schools to assess the facilities, it was not possible to see the classes and the type of lessons provided to students (Lopez, Maoulidi and MCI, 2009, pp 8-9).



LEARNING FROM THE CASES:

1. What do you see as the main purpose of school mapping as described in the Lok Jumbish example from India?
2. What tools do you think might have been used for school mapping in the Indian example?
3. Why do you think GIS was not used in the Indian example? How might it have been helpful?
4. Would the findings of the Ethiopian needs assessment have been more useful if there had been more opportunities to see the teachers and students interacting in classrooms? Why?
5. How do you think students and parents might have been able to contribute to the Ethiopian needs assessment? Why were they not involved? Should they have been?



notes

7



- Why are local contexts important to consider when conducting a needs assessment?
- How would you get ideas from the local community about how to solve the problem?
- Why might you use a questionnaire as part of a needs assessment?
- What other data collection methods could you use and why?
- What are the main features of the final report of the needs assessment? Who is the audience of the report and how would you convey the results to them?



notes

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Appendix A: Sample questionnaire

Instructions: Please tick the box next to the correct answer, or write in the space provided.

1. Sex:

Female Male

2. Age (years):

6-12 13-19 20-26 27-60 above 60

3. Religion:

Muslim Christian Other

4. Household type (choose one):

Nuclear family (2 parents/carers living with children)

Single-parent family (1 parent/carer living with children)

Complete extended family (2 parents/carers with children and other family members)

Incomplete extended family (1 parent/carer with children and other family members)

Other (describe family situation)

5. Type of employment (choose the main employment area, i.e. most time spent working):

Household (cooking, cleaning, etc) Farming Office Handicrafts/ Art

Manufacturing / Factory Service (e.g. hairdresser, driver, waiter, etc)

6. Number of children living in the household (insert the number of children in this box):

7. Distance from your house to the children's school(s):

..... metres OR kilometres

8. Children's school attendance (insert information about each primary school-aged child):

Primary school-aged children (aged 6 to 13)	Age of the child	Sex of the child (boy/girl)	Enrolled in school? (yes/no)	Number of days of school each week	Attends full-day of school? (yes/no)
Oldest child					
Second child					
Third child					
...					

9. Reasons for not attending school (insert the reasons, if applicable, for each child):

Primary school-aged children (aged 6 to 13)	Reason(s) the child is not enrolled (i.e. not going to school at all)	Reason(s) the child is not going to school every school day	Reason(s) the child is not attending full days of school (i.e. only half days or partial attendance)
Oldest child			
Second child			
Third child			
...			

EDUCATION MICROPLANNING TOOLKIT

ENHANCING CURRICULUM AND
TEACHING PROCESSES TO IMPROVE
STUDENT LEARNING



4



United Nations
Educational, Scientific and
Cultural Organization

UNESCO Bangkok
Asia and Pacific Regional Bureau
for Education



MODULE 4

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1

LEARNING OUTCOMES FOR THIS MODULE

- 1.1** Become familiar with the planning, implementation, and evaluation processes contributing to enhancing curricula.
- 1.2** Be able to plan strategies for curriculum planning and assessing teachers, classroom practices and learning outcomes with a view to enhancing student learning.
- 1.3** Understand the process of assessing teaching and learning.
- 1.4** Learn from experiences in other countries and be able to select and adapt relevant practices to suit local needs.

STRUCTURE OF THE TOOLKIT

2

Introductory Module

Provides an introduction to education microplanning, the functions it can serve and examples.

Module 1

Principles of microplanning: Working with communities

Focus: Working with local communities – building partnerships.

Module 2

Getting started: Initiating an education microplanning exercise

Focus: Getting prepared for an education planning exercise at the local level: spatial, social, economic and educational considerations.

Module 3

Conducting a needs assessment – instruments, data collection and analysis.

Focus: Getting to understand local needs through engaging communities in planning and building capacity.

Module 4

Enhancing curriculum and teaching processes to improve student learning

Focus: Getting to understand the planning, implementation and evaluation processes that contribute to successful student learning.

Module 5

Data and information for decision-making and planning

Focus: Using data for understanding and improving education at the local level: assessing the outcomes of planning in areas such as access, participation and learning.

3

In the earlier modules of this toolkit (Module 1 to 3), you gained the basic knowledge, techniques, processes, skills and tools for conducting education planning at the local level. The focus of this module is to help you become familiar with the planning, implementation and evaluation processes relating to curricula and teaching and learning.

The key elements and issues to be considered in this module can be categorized into two areas:

- ➔ Curriculum development and evaluation
- ➔ Assessment of teaching and learning

In each area, there are specific focus questions or factors that the microplanner should consider. The module does not offer standard responses to these questions and factors, but the skills and methods presented in the earlier modules can be applied to identify needs and will inform the formulation of strategies that best suit your own situation.

This module acknowledges the importance of issues related to teacher quality, but it does not address these issues in detail. It is planned that a new module will be developed to focus particularly on these issues. The planned module will be included in the next edition of the toolkit, together with any comments and feedback received on the toolkit's usefulness and practicality.

ENHANCING CURRICULUM AND TEACHING PROCESSES TO IMPROVE STUDENT LEARNING

4

Given that teaching and learning processes mainly happen in schools, decision-making about teaching and learning should be geared to the needs of students and teachers. In this respect, it is important that teachers, school principals and education officers actively participate in decision-making. In the following sections, we will look into different aspects of microplanning for curriculum and teaching and learning – the mechanisms, policies, processes and people.

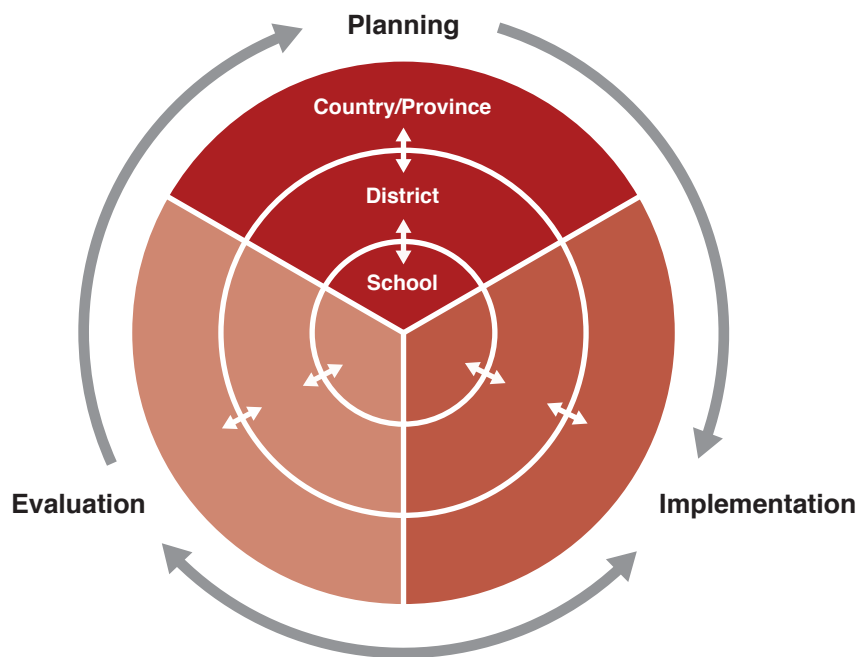
4.1 Curriculum development and evaluation

It is generally agreed that the curriculum is a key component of the teaching and learning process. In the past, education planners and administrators at the provincial and local level confined themselves to the existing structure of education, not questioning the curriculum or the teaching and learning process (UNESCO, 1991). They therefore implemented the national curriculum without any adjustments for the local context, despite the fact that the curricula devised by central governments are often not applicable to the specific needs of individual local communities. In the context of globalization and the increasingly decentralized environment in education, modern education planning is putting more emphasis on formulating curricula that address needs of local communities. In this respect, local communities are increasingly being given support in adapting the national curriculum to cater for their specific needs. By the same token, it is possible for planning to go further down to the school and classroom levels through to school-based curriculum development processes. This ensures that the curriculum is appropriate to the local context and is also properly planned, implemented and evaluated at the local level, while being, at the same time, aligned with the national curriculum. Although this is a great challenge for most countries, progress is being made in many places.



Inspired by the P-I-E model (Johnson, 1977) the process of curriculum development can be conceptualized as a three-phase model, as illustrated in the figure below.

Figure 1: Curriculum development model



Each phase of the curriculum development model has a number of key steps and specific tasks to be completed in a logical sequence. The following elaborations are largely adapted from Glatthorn, et al. (2006), Sawi (1996) and UNESCO-IBE (2009).

4.1.1 Phase 1 – Curriculum planning and development

For the purpose of this toolkit, the discussion that follows focuses on two levels of planning:

- ➡ Country and provincial level
- ➡ District and school level

Step 1: Set up the organizational structure

The first step in developing a curriculum is to lay the foundations. This involves setting up the organizational structure to facilitate planning. The organizational structure should be simple, flexible and able to respond quickly to changing needs. Two standing committees for curriculum development could be set up: one at the district level and one at the school level. These committees will serve to provide advice. Members of these committees should be nominated and appointed by the relevant authorities and their memberships could be renewed or replaced after serving for a stated period of time – to ensure continuity and also a dynamic organization with a mechanism to bring in fresh ideas.

The district curriculum advisory council or committee membership could include:

- ➔ Superintendent of the school district or assistant superintendent (chairperson)
- ➔ District education or curriculum directors or officers
- ➔ School principals
- ➔ Teachers
- ➔ Parents or parent-teacher association (PTA) representatives
- ➔ Other community representatives

The school curriculum advisory council or committee membership could include:

- ➔ School principal or deputy principal (chairperson)
- ➔ Curriculum development leader or coordinator
- ➔ Subject department heads or panel heads
- ➔ Grade-level heads or coordinators
- ➔ Teachers
- ➔ Parents or PTA representatives

Step 2: Form a curriculum development team

Once the major curriculum planning decisions have been determined by the committees and translated into an action plan, the next step is to form a curriculum development team (CDT) to develop the new curriculum or make revisions to the existing curriculum at the district or school level.

To ensure the CDT achieves its aims, it is necessary to select the CDT members carefully. Since no single individual has all the required skills, expertise and calibre to design and develop a good quality curriculum on their own, the team leader needs to ensure that the team as a whole has or acquires the required knowledge, competences and experience to fulfil its responsibilities. In general, the team members selected should be creative and have prior experience in teaching and in writing instructional material (Glatthorn et. al., 2006). For the actual selection of the CDT team, leaders may identify and develop specific criteria depending on the scope, complexity and goals of the curriculum development task. A successful CDT usually comprises a combination of specialists and educators as well as representatives from the community.

Team members could include:

- ➔ Curriculum planning and design experts
- ➔ Subject matter experts
- ➔ Exemplary teachers and experts in pedagogy
- ➔ Specialists in the production of instructional materials (e.g. editor, graphic designer, technical writers)
- ➔ Representatives from the community

The major functions and responsibilities of the CDT include the following:

- ➔ To gather and review relevant education and curriculum documents.
- ➔ Government education and curriculum documents, including policy papers, consultation reports, curriculum evaluation reports, school subject documents and guidelines.
- ➔ Subject area documents, including course content and teaching materials, and course evaluation reports.



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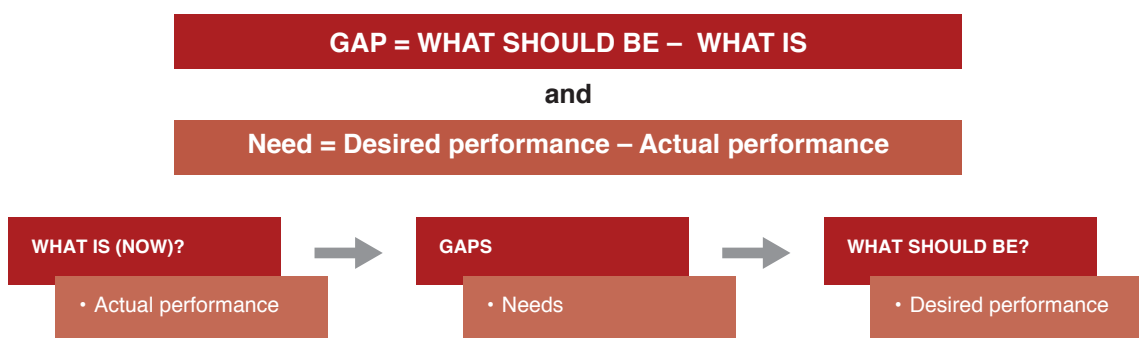
- Other materials, including research reports and publications published by academic institutions and interested groups in the community.
- To seek views and advice from stakeholders and experts for planning the curriculum. The process is presented in Module 3 on conducting a needs assessment. The needs assessment process is also discussed briefly below.
- To develop and write the curriculum outline and materials, taking into consideration the results of the needs assessment and the information that has been collected.
- To test, modify and finalize the developed curriculum materials taking into consideration feedback collected from consultations and trial teaching.
- To provide consultation, user guides, training materials and staff development on implementing the new or revised curriculum materials.

Step 3: Conduct a needs assessment

To determine what changes are necessary in the national curriculum so that it will be appropriate for the needs of the local community, it is necessary to conduct a needs assessment. For a detailed description of how to conduct a needs assessment, refer to Module 3 of this toolkit. In simple terms, a needs assessment is a process of identifying the gap between “what is” and “what should be” (Glatthorn, et al., 2006, pp. 142-145).

Sawi (1996) uses a simple mathematical formula to show the linkage between “what should be” and “what is” as shown in the figure below.

Figure 2: Assessing needs: Calculating the gap between “what is” and “what should be”



A useful tool for assessing the curriculum and deciding what needs to be changed to meet the needs of the local community is a SWOT analysis. SWOT stands for: Strengths, Weaknesses, Opportunities and Threats. This tool can be used for analyzing the overall situation. A matrix can be used to list the strengths and weaknesses of the current curriculum, opportunities for change, and threats that might eventuate as a result of that change (see Figure 3).

Figure 3: SWOT analysis framework



The following five questions will assist schools in identifying whether the existing curriculum requires improvement (adapted from Department of Education and Early Childhood Development, 2012):

- ➔ What student outcomes is the school trying to achieve through the delivery of the existing school curriculum?
- ➔ What student outcomes did the school achieve?
- ➔ Why has the school achieved or not achieved good learning outcomes? Were poor outcomes due to the curriculum content and materials, or were they due to existing pedagogical methods, instructional approaches and teaching and learning activities?
- ➔ How effectively has the school managed its resources to support the achievement of improved student outcomes?
- ➔ What can the school do to improve the design and delivery of the school curriculum?

Step 4: Secure resources needed for the new or revised curriculum

You may need resources for developing or revising the curriculum. It is important for microplanners to make sure that sufficient resources for adjusting a curriculum are secured in the early stage of curriculum development, and it is necessary to match the expectations with the likelihood of resources. Microplanners should also be aware that it usually requires many more resources, in terms of both financial and human resources, for implementing a curriculum than for developing a new curriculum.

Step 5: Prepare the new or revised curriculum

Before beginning, be fully cognizant of the national curriculum framework. A national curriculum framework “often expresses the state’s aims of education, and can define minimum standards for content and assessment, as well as teacher qualifications, educational resources and learning materials, management, and evaluation” (UNESCO-IBE, 2009). Ensure compliance with these standards when developing a local or school curriculum.

4.1.2 Phase 2 – Curriculum implementation

Curriculum implementation is the process of utilizing the curriculum in schools. At the district level and school level, curriculum implementation refers to the process of teachers putting the planned curriculum into practice with real students in real schools (UNESCO-IBE, 2009).

There are often three major challenges in implementing a new curriculum:

- ➡ Lack of local technical expertise to teach the new curriculum.
- ➡ Resistance (fear of the unknown) among school managers, teachers and community members.
- ➡ Lack of appropriate curriculum materials and resources.

These obstacles can be overcome through:

- ➡ Providing training for school managers and teachers.

- ➡ Ensuring an appropriate level of professional autonomy at the school level accompanied by a good understanding of its strengths and limitations in human and financial resources, so that there is room for teachers and school managers to support and carry out the curriculum strategies and formulated plans.
- ➡ Ensuring clear and open communication exists between central and local authorities.

To identify the needs that school managers have in terms of capacity building, it is useful to look at the roles of managers and think critically about whether existing staff have the skills required to fulfil their responsibilities in these roles.

Table 1: Human resources

Roles of leaders and managers	Selected Key Actions
Leading	<ul style="list-style-type: none"> • Create and promote organizational culture dedicated to quality for all children. • Create and demand supportive environments for teachers and schools. • Establish overall staffing philosophy and hire great managers (central office and principals).
Managing	<ul style="list-style-type: none"> • Define and focus on results (success for students). • Motivate and develop teaching and other talents. • Create working environments that demand and support quality education and curriculum implementation.
Planning	<ul style="list-style-type: none"> • Forecast the demand and characteristics of top-quality people • Identify sources of the people who have those characteristics.
Acquiring	<ul style="list-style-type: none"> • Develop strategies to get those people to fill the vacancies.
Maintaining	<ul style="list-style-type: none"> • Provide induction and orientation to new staff. • Allocate the right place/job to the right people.
Developing	<ul style="list-style-type: none"> • Provide coaching and access to professional development. • Create and manage in line with career and performance plans.

Retaining	<ul style="list-style-type: none"> • Reward, recognize, and celebrate accomplishments. • Base career advancement on performance. • Ensure teachers and managers adequate compensation and appropriate responsibility, authority, and control.
Evaluating	<ul style="list-style-type: none"> • Evaluate based on performance. • Benchmark performance against internal examples of excellent teaching and management.

Source: Adapted from the Annenberg Institute for School Reform, 2002.

4.1.3 Phase 3 – Curriculum evaluation

Curriculum evaluation is done for accountability and quality improvement purposes. Continuous improvement of curricula is necessary to ensure these curricula are relevant for current needs. Curriculum evaluation also provides feedback on any curriculum adjustments that have been made (UNESCO-IBE, 2009).

Evaluation is a decision-making process that involves gathering data that will support decisions about whether or not to change something, whether it is the curriculum as a whole or just a textbook (Ornstein and Hunkins, 1998).

The fundamental concerns of curriculum evaluation relate to:

- ➔ Effectiveness of the curriculum in translating government education policy and local needs into educational practice.
- ➔ Status of curriculum content and practices.
- ➔ The achievement of the goals of local education programmes.

The process of evaluating a curriculum involves four phases:

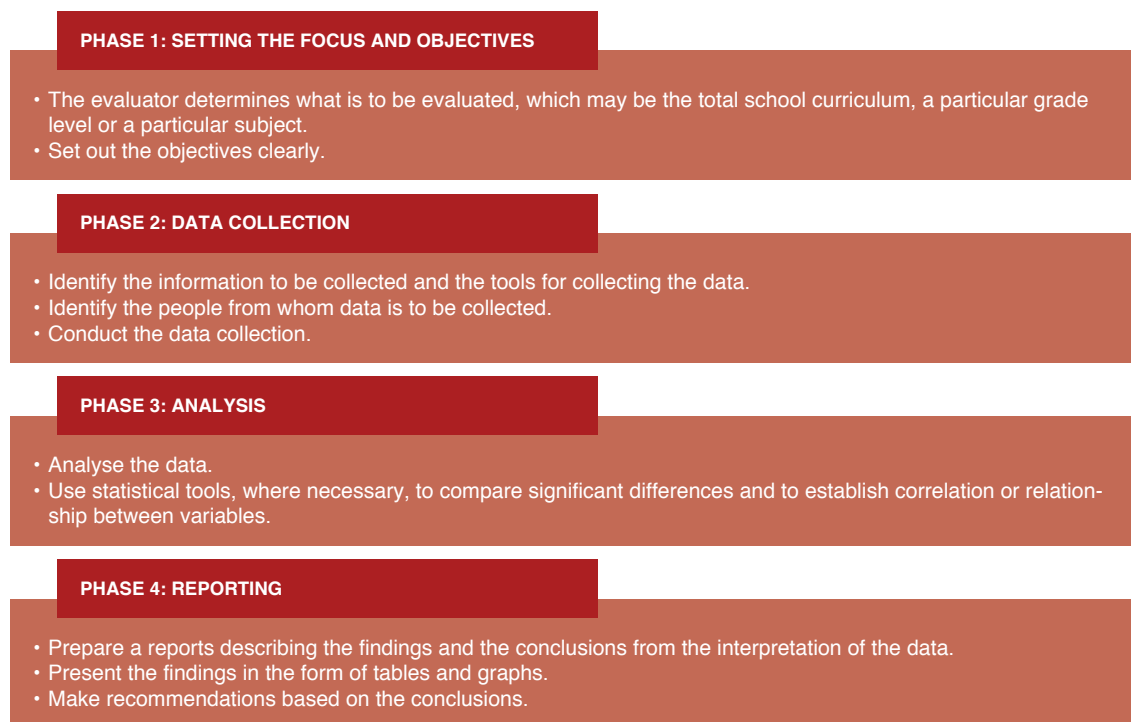
- ➔ Setting the focus and objectives
- ➔ Data collection

➔ Analysis

➔ Reporting

This process is illustrated graphically below.

Figure 4: Curriculum evaluation process



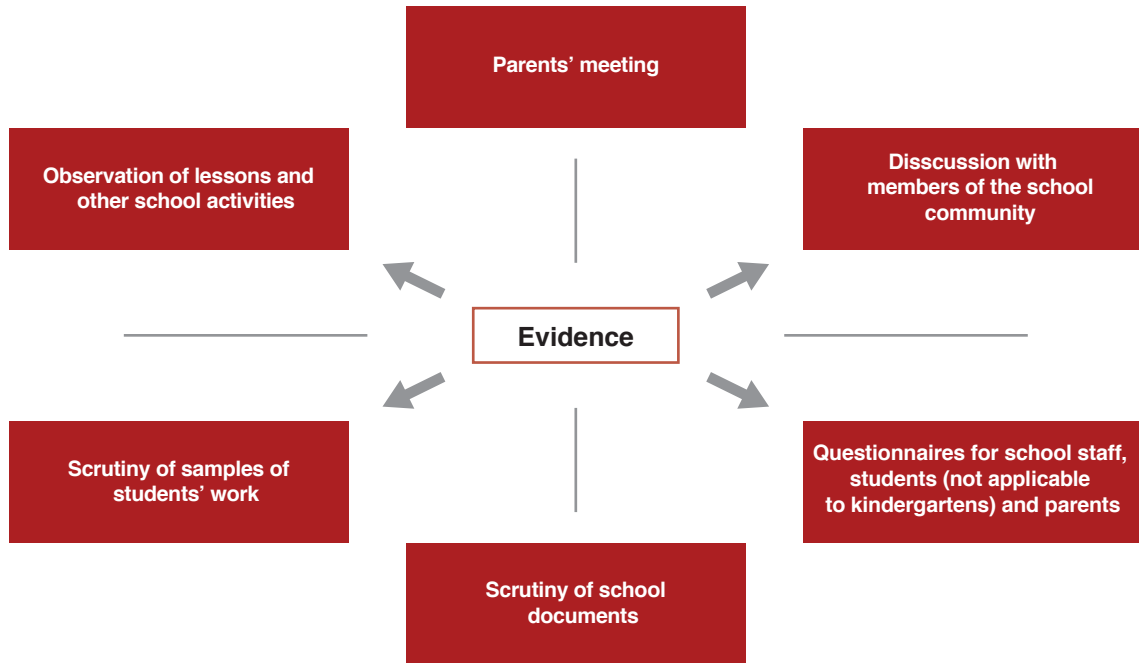
Source: Adapted from: People Learn, Chapter 8.

Evaluation specialists have developed an array of curriculum evaluation models. Each of these models has its strengths and limitations. One example is the Context-Input-Process-Product model (Glatthorn, et al., 2006).

When evaluating a curriculum at the district or school level, microplanners should focus on two aspects. Firstly, how successfully the teachers as a whole carried out the curriculum strategies and plans. This evaluates the effectiveness of curriculum implementation – whether the planned curriculum and activities produce desired results (McNeil, 1977). Secondly, how the school can improve teaching strategies based on evidence collected from review of curriculum activities and students’ performance. This is about how to improve curriculum offerings (McNeil, 1977) thereby enhancing the overall quality of learning and teaching.

Good quality data is a key component in any successful curriculum evaluation process. The following diagram shows an approach to gathering relevant evidence about the effectiveness of a curriculum in bringing about education goals (EDB, 2008).

Figure 5: Evidence gathering process



At the heart of an effective evaluation process is reliable and appropriate information. Useful information is:

- ➔ Timely – data (evidence) is gathered regularly in the course of curriculum implementation, at appropriate points of time.
- ➔ Valid – evidence is collected through multiple channels (teachers, students, parents and other stakeholders) and in different formats (lesson observations, interviews, stakeholder questionnaires, curriculum documents, samples of student work, and students’ performance in internal and public examinations and tests), which can demonstrate the effectiveness of the implemented curriculum.
- ➔ Reliable – sound and well designed methods are used to collect and triangulate the evidence.

Microplanners should highlight the quality improvement functions of curriculum evaluation.

In other words, the success of curriculum evaluation depends on what decisions are made in the evaluation process and how the decisions are translated into actions for improvement in the curriculum.

The curriculum evaluation process at the school site should be coordinated and conducted by a task group or the curriculum development team, led by an experienced curriculum leader or school leader who has good understanding of the process of evaluation and how it relates to the development of an effective curriculum. He or she should have the expertise to analyse and interpret the data, evaluate the effectiveness of various aspects of the curriculum and its implementation, and translate the evaluation results into concrete plans for curriculum development - showing how teaching and learning can be enhanced via the curriculum.

4.2 Assessing teaching and learning processes

Education reform aims to increase efficiency (i.e. make the best use of resources) in education, quality (i.e. enhance student learning) and equity (i.e. ensure that all students have access to and benefit from the education processes). The three broad aims are all equally essential and education planners should constantly strive to achieve greater levels of efficiency, quality, and equity in the provision of education services.

4.2.1 Assessment of the teaching process

It is generally agreed that teachers are essential to student learning. Although the role of teachers has changed in the 21st century, with learning going from being teacher-centred to student-centred, teachers are still at the heart of education.

Teachers are key players that have direct and significant impact on the quality of education and student learning. “The quality of an education system cannot exceed the quality of its teachers” (Barber and Mourshed, 2007). Thus, education cannot be implemented successfully without good quality teachers.

The following elements are essential for developing good quality teachers:



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- ➔ Teacher supervision and monitoring.
- ➔ Teacher performance management and professional development.
- ➔ Teacher professional autonomy.

Today, teaching and learning no longer just focuses on students' academic performance, but also considers wider development of abilities and skills. As such, teachers need to employ effective strategies to engage their students in active learning in and out of school, taking into consideration students' diverse needs. It is necessary to identify the strengths and weakness of teachers in achieving high quality teaching and learning, so that microplanners can formulate relevant capacity building strategies and programmes to enhance teacher effectiveness.

The following focus questions are useful for microplanners (EDB, 2008):

- ➔ How do teachers design their teaching content and adapt teaching strategies in accordance with their teaching objectives?
- ➔ How flexible are teachers in adjusting their teaching pace and strategies to cater for the different learning needs of students?
- ➔ Are teachers able to create a good classroom learning environment for students? Is the classroom managed effectively?
- ➔ Are teachers able to provide opportunities for students to participate in and share their experiences and to promote class interaction so as to enhance learning effectiveness?
- ➔ Are teachers equipped with subject knowledge? Do they pace expectations of students at an appropriate level?

4.2.2 Student assessment, feedback and follow-up

Traditionally, student assessment and testing are mainly used for summative purposes such as selection and certification. They are designed for checking the outcome of learning and are separate from the teaching or learning processes. This evaluation approach is known as "Assessment of Learning". In pursuing high quality education, school systems around the

world are moving towards a new assessment approach: “Assessment for Learning”, which is “a process in which teachers seek to identify and diagnose student learning problems, and provide feedback for students on how to improve their work. Different modes of assessment should be used whenever appropriate for a more comprehensive understanding of student learning” (CDC, 2002). Studies show that when schools adopt “Assessment for Learning” successfully, students can improve their learning based on feedback from teachers and other assessors. At the same time, teachers can improve their curriculum design and content, teaching strategies and classroom organization so that the lessons are better suited to the needs and abilities of their students. On the other hand, the value of assessment for summative purposes or “Assessment of Learning” should also be acknowledged. Therefore, microplanners should help schools develop a clear school assessment policy and a staff development programme to maintain and support the balanced use of the two forms of assessment.

The content of a staff development programme should include the following:

- ➔ The different types of assessments and their purposes.
- ➔ Assessment strategies – traditional assessment vs. performance assessment (based on performance, requiring students to utilize their knowledge in a meaningful context).
- ➔ Reporting and using assessment results for enhancing teaching and learning.
- ➔ Equity and fairness in implementing an assessment policy.

4.2.3 Assessment of the learning process

To align with the changing role of teachers, students are today encouraged to take a more active role and responsibility for their learning under the guidance of their teachers. Students are provided with various planned activities to actively engage in exploration, sharing and group work, designed to acquire and foster the aptitude to become lifelong learners.

The following focus questions can be asked when developing strategies to enhance the student learning process (EDB, 2008):

- ➔ Do students possess good attitudes, motivation and interest in learning?



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- Are students able to effectively apply learning strategies and resources in their learning, thus attaining their learning goals?
- Are students able to utilize feedback to improve their learning?
- Do students successfully acquire and apply knowledge and skills?
- How well do students perform in their learning activities and assignments?

The following are some useful strategies and learning activities for fostering students' motivation and learning ability:

- Project work
- Collaborative learning
- Problem-based learning

5

This module helps readers to understand the process of curriculum development, which is a three-phase cyclic process including planning, implementation and evaluation. Building a school curriculum team and conducting needs analysis are the two important tasks in the planning phase. At the school level, planners may use a SWOT analysis to understand strengths and limitations of the existing curriculum, while at the same time paying attention to striking a balance between national interests and local needs. A clear curriculum framework, including a set of curriculum standards, is a key component for successful curriculum development.

This module also examines processes for assessing the effectiveness and quality of teaching and learning in schools. It provides focus questions and key points to consider when assessing teachers, student learning, and the learning process itself.

Case 1: ICT Professional Development of Teachers in Thailand: The Lead-Teacher Model

Source: UNESCO, 2009

The Institute for the Promotion of Teaching Science and Technology, an autonomous body within the Ministry of Education of Thailand, has developed a Teacher Professional Development (TPD) programme in support of educational reform. The ultimate goal of this in-service teacher training programme is to improve students' learning outcomes, particularly in science and mathematics, to reach international standards.

One component of the TPD programme aims to improve the skills of teachers in the use of information and communication technology (ICT) and enable teachers to utilize forms of ICT (e.g. videos, radio programmes and computers) effectively as tools for teaching.

The primary objectives of the ICT component of the programme were to:

- ➔ Develop, support and empower lead trainers for in-service teacher training in the uses of ICT tools, particularly in mathematics and science subjects.
- ➔ Design and disseminate ICT-relevant training materials for in-service teachers.
- ➔ Utilize distance learning technologies to provide services to both trainers and teachers.

- Develop networks with local authorities and organizations to facilitate the work of teacher trainers across schools in remote areas.

A model called the “Lead-Teacher Model” was adopted as a vehicle for developing professional development, through partnership and collaboration between schools and organizations such as universities.

In the early years of integrating ICT into education in schools, most of the training programmes were designed to build the capacity of teachers who were assigned to teach computer courses (ICT teachers). These teachers had different subject backgrounds and demanded intensive training to be able to teach the courses.

Train-the-trainer workshops were held in which well-skilled ICT teachers from schools all over the country were recruited to be lead trainers. These teacher trainers provided training to other teachers both in their own and other schools in their area. By 1995, there was a lead teacher trainer in each province.

Case 2: **Teacher Deployment and Management in Pakistan**

Source: UNESCO, 2006, pp. 16-18

Pakistan has a system and chain of accountability that is revised and modified periodically to serve the needs of the country. The present system of local government i.e. district nazim, district coordination officer and executive district officer (education and literacy) was introduced in 2001 under a devolution plan. Under this plan, education planning, management, and monitoring and evaluation were decentralized to the district level.

Under the decentralized education system, accountability to beneficiaries and local groups has increased to some extent. There is a wider participation beyond the government. A number of non-governmental organizations (NGOs), international development partners, and support organizations such as the National Commission for Human Development (NCHD), Deeni Madaris, the private sector and individuals in civil society are now taking active roles in the promotion of education and literacy in the country. Moreover, education foundations at the federal and provincial levels have been established to promote education through public-private partnerships. Information is gathered and used for the purposes of accountability through the executive district officer, sub-district officer, learning coordinator



and head teacher within the education department. Outside the education department the information for accountability is collected through Village Education Committees or School Management Councils, nazims and councillors under local government as well as through media.

However, it has been observed that the new system is facing certain problems such as a shortage of qualified personnel, facilities and services, and ambiguity in functions, responsibility and authority.

The system is evaluated on the basis of results of the promotion exams. Additionally, research and evaluation studies and surveys are also conducted to evaluate the system - especially to assess the quality of education. The Punjab Education Department developed a standard manual to evaluate the system. A new system for monitoring and evaluation was also introduced in each district of Punjab for validation and evaluation.

Case 3: School Education Quality Assurance in Viet Nam

Source: World Bank, 2009

The objective of the School Education Quality Assurance Program (SEQAP) Project for Viet Nam is to improve learning outcomes and education completion for primary education students, particularly disadvantaged primary education students, through supporting the government's full-day schooling (FDS) reform programme.

There are four components to the project: (1) to improve the policy framework; (2) to improve human resources (support the training and professional development of teachers, school leaders and education managers to successfully move toward FDS in the provinces, with a focus on teaching methods, teacher standards and school management); (3) to improve school facilities and resources (support the upgrade of infrastructure and facilities and support recurrent expenditures as needed in about 1,730 schools to successfully move to FDS, with related decentralized capacity building for effective school construction and preparation of the FDS plans); and (4) to support the management of SEQAP to ensure smooth implementation and results on the ground.

LEARNING FROM THE CASES:

1. Why do you think the Lead-Teacher Model was adopted in Thailand (Case 1)? What would be the critical components to make this a success?
2. How would you evaluate the effectiveness of the decentralization of teacher management in the Pakistan case? What are the key issues that need to be addressed by microplanners?
3. What are the four components of the quality assurance programme in the Viet Nam case?



EVALUATION TASKS

7



Why do we need to establish curriculum development teams at schools and what are their major tasks?



How can schools ensure that curriculum planning activities are carried out properly and achieve the expected learning outcomes?



What are some practical ways to help schools make use of curriculum evaluation data to inform curriculum planning and classroom practices? What types of data would you recommend for this purpose?



Can you identify the most needed knowledge, strategies and skills for teachers to enhance student learning in your own country, district or school?



What are the key issues in developing and enhancing teacher quality?



notes

8

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EDUCATION MICROPLANNING TOOLKIT

DATA AND INFORMATION FOR DECISION-MAKING AND PLANNING



5

MODULE 5

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1

LEARNING OUTCOMES FOR THIS MODULE

- 1.1** To understand the importance of data and information for education planning at the local level.
- 1.2** To be able to define the purpose and function of an education management information system and to distinguish different data systems that can be found at the local level.
- 1.3** To gain basic knowledge on how to use data and information for evidence-based decision-making as well as for monitoring and evaluation.
- 1.4** To learn from the lessons of other countries and be able to select and adapt relevant practices to suit the local needs.

STRUCTURE OF THE TOOLKIT

2

Introductory Module	Provides an introduction to education microplanning, the functions it can serve and examples.
Module 1	Principles of microplanning: Working with communities Focus: Working with local communities – building partnerships.
Module 2	Getting started: Initiating an education microplanning exercise Focus: Getting prepared for an education planning exercise at the local level: spatial, social, economic and educational considerations.
Module 3	Conducting a needs assessment – instruments, data collection and analysis. Focus: Getting to understand local needs through engaging communities in planning and building capacity.
Module 4	Enhancing curriculum and teaching processes to improve student learning Focus: Getting to understand the planning, implementation and evaluation processes that contribute to successful student learning.
Module 5	Data and information for decision-making and planning Focus: Using data for understanding and improving education at the local level: assessing the outcomes of planning in areas such as access, participation and learning.

3

In the previous modules of this toolkit (Modules 1 to 4), you have learned the basic techniques, processes, skills and tools for conducting education planning and how to improve learning at the local level through addressing issues relating to curriculum, assessment and teaching processes.

This module will address the topic of using data and information to improve education at the local level. It covers the following topics:

1. Why data and information are needed for the management of education at the local level.
2. What different education data systems may exist at the local level, either as a unified system or separate, fragmented systems.
3. How data and information can be used for planning and monitoring actions at the local level.

4.1 Why data and information are needed for education management

Each system is unique in the way it functions and in the results it produces. This uniqueness can often be revealed through the data and information the system collects and produces.

The education system is not an exception to this rule. Indeed, the growing complexity of education systems and the need for better regulation, coordination and accountability have made data and information essential elements of the administration, planning and monitoring of education. Without data and information, it is difficult to make good decisions.

Information provides the foundation for evidence-based decision-making at every level of the system (Carrizo et al, 2004). The various actors at different levels of management need to be informed of the performance, issues, needs and challenges of the education system.

The various actors have different information needs. For example, while students need information on the content of education, methods of evaluation and eventual benefits of learning, the teacher requires information of a pedagogical nature such as the curriculum, course organization and teaching methods. The teacher also needs to be able to monitor and evaluate the progress students make in their learning. The school principal needs information about admissions, registration and attendance of students and the performance and participation of teachers and other staff. The planner requires information about the achievement of educational objectives and targets.

The actors in the education sector (a teacher, a school principal or a decision-maker) need timely information that is relevant and easy to understand. This is quite different from the raw data that is often found in bulky official publications.



Table 1: The difference between data and information

Data	Unprocessed figures and facts, e.g. the number of pupils enrolled in a school.
Information	Data that has been processed to make it meaningful, e.g. a report that describes the changes in pupil enrolment rates over time, and explains the possible reasons for those changes.

Education systems collect data from several sources and use various methods of data collection. The various methods of collecting data are presented and explained in Module 3.

Although data are generally collected in most education systems, they are not always analysed and used. The data that are collected are not always published, except in the form of bulky reports with raw data, incomprehensible statistical tables and little analysis.

Data by itself is of little use unless it is analysed to draw out meaningful information, and when there is a framework in which the information can be used for monitoring and evidence-based decision-making.

In the fast changing world today, analytical work is becoming more and more critical for policy decisions and learning enhancement. This analytical work involves the development of policy-related questions, construction of measurement techniques, data collection and analysis, and production and dissemination of policy-relevant information. The effective utilization of data requires specific skills and capacities but also a policy environment that encourages and supports the use of information for evidence-based decision-making.

Management involves verification and monitoring of services in order to detect progress and shortcomings. Questions that education managers often ask include: Do we have enough human, physical and financial resources to operate properly and produce the expected results? Are young people attending school? How are they learning? Do the educational services that are provided respond to their needs?

4.1.1 Information flow across levels of decision-making

To be useful, data and information should be adapted and made accessible to all levels of decision-making in the education system.

One can distinguish three main levels of data use, which correspond to the tasks of the three levels of education administration in most education systems: macro, intermediate and micro.

The macro level of administration is responsible for strategic decisions concerning the planning of the whole education system. The category of decisions at this level concerns the general policy directions. The information required here are aggregates that are used for setting and monitoring the policy objectives at the national and regional levels.

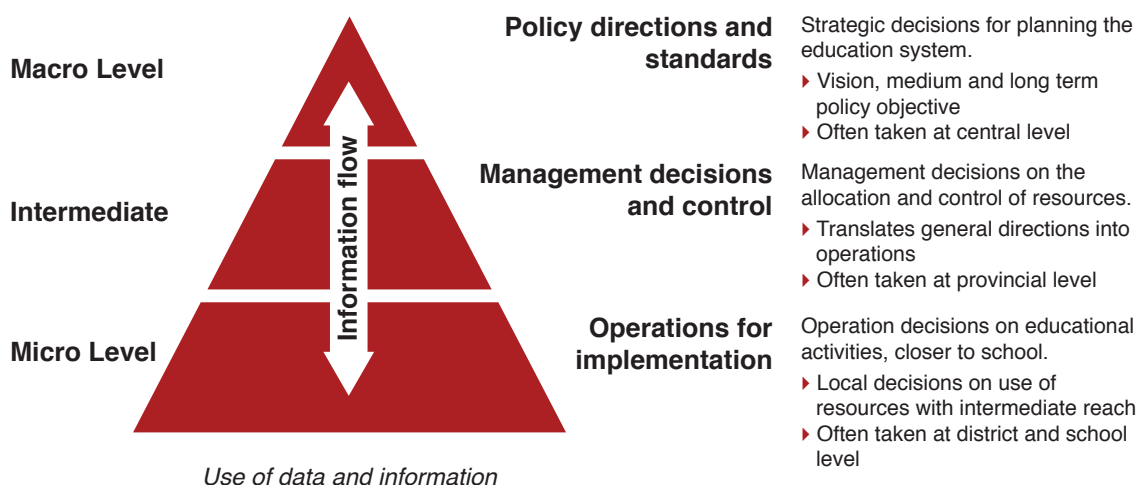
The intermediate level comprises decision-makers who are in charge of management and supervision with regard to the allocation and monitoring of resources. This level translates the general policy directions into more technical, operational decisions. It therefore requires more specific data to ensure efficient and equitable distribution of resources, to detect possible shortcomings and to optimize the use of resources.

The micro level corresponds to operational tasks of defining the use of allocated resources to deliver education services and to translate them into concrete results. This level is concerned with more routine activities closer to the school. The decisions here have local and immediate reach and hence will require more detailed, disaggregated information.

Thus, the three decision-making levels require distinct types of information. The levels sometimes overlap, however, and they are linked with each other because decisions at the macro level are only relevant and efficient when they are based on precise and reliable information gathered from the lower levels. To fulfil its role and functions, the information system should necessarily integrate the complex relations between the different levels of decision-making.

The diagram below shows the differences and links between the uses of information at the three levels of decision-making.

Figure 1: Use of information by level of decision-making



Source: Carrizo et al, 2004. The figure has been adapted for the purposes of this module.

To strengthen management, planning and dissemination of information at all levels of decision-making, the education administration has to:

- ➔ Improve capacities in collecting, processing, storing, analyzing and disseminating data in order for managers and educators to base their decisions on timely and reliable data.
- ➔ Reduce and eliminate duplications in data collection.
- ➔ Coordinate efforts in acquiring, processing, analyzing and disseminating education data and information.
- ➔ Integrate, link and interface existing data and information systems.
- ➔ Adapt data collection to the constantly evolving needs for information.

4.1.2 Education management information systems

An education management information system (EMIS) is a sub-system of an education system that collects, stores, processes, analyses and disseminates data for the purpose of monitoring and decision-making. Every education system needs an information system.

An EMIS has to integrate all the sources of data to respond to the various needs for information. Information is needed for both allocative (i.e. decision-making on resource allocation) and operational (i.e. decision-making on the efficient and effective use of allocated resources, including the extent to which learning is being enhanced) functions and tasks.

The information generated by an EMIS helps to answer the questions facing education managers, while verifying the internal and external efficiency of the education service provision. Reliable data, provided by an EMIS and used in conjunction with appropriate analytical techniques, will generate credible information (evidence) for decision-makers. Such information can then be used in establishing a strong knowledge base and facilitating smarter decision-making.

The information produced by an EMIS should be user-oriented and user-friendly, and should not be like traditional statistical services, which tend to produce data from the producer's point of view and often do not consider the information needs of users and the purposes of the data. Another requirement for an effective EMIS is that it has an easy access and retrieval process.

4.1.3 Purposes of an EMIS

Data and information are produced to facilitate administration of education services, analysis and planning of education development at the macro, intermediary and micro levels, and monitoring and evaluation of education performance at the system level, including programme areas and student learning.

a. Administration of education

A key aim of an EMIS is to help manage and administer education services by generating routine information for operational purposes, such as weekly, monthly and quarterly records of the attendance and movement of students and personnel, salary payments, the results of examinations, financial transactions, etc. Such information is particularly important for management of education activities at the local and school levels.

b. Analysis and planning of education

Another use of an EMIS is to collect and compile to analyse the relevance, efficiency and effectiveness of current programmes as well as to explore the options, often in a better direction, for educational development. Finding the responses to these policy concerns is a complex exercise, which not only requires specific technical skills, but also the availability of reliable and relevant information. An EMIS can provide the reliable and timely information that is required for a variety of purposes. For example, information can be used for mapping schools to ensure equitable access; projecting resource requirements to signal to policy-makers the needs of the system; and developing comparable data on student learning in order to identify key issues to address when planning a course of action for the medium and long term development of education.

c. Monitoring and evaluation of the education system

When decision-making is evidence based, it relies on the findings from the monitoring and evaluation of the implementation of education policies and programmes. Throughout the policy implementation, a functioning EMIS will provide reliable and objective information on the way the policies and programmes are being implemented, and how student learning is progressing. This can facilitate the detection of possible shortcomings and obstacles as well as the undertaking of remedial actions.

4.1.4 Data systems

Various types of data systems¹ exist at the local (school, district or school district) level. Some produce information about students for managers and planners, while others deliver information about instructional support to school leaders, educators, students and their parents. Some data systems collect statistical information and facilitate school-based education management, while others have been installed by school districts and school administrations for the purpose of monitoring the movement of staff and students, managing the resources allocated to their jurisdictions, or facilitating the teaching and learning processes.

¹ Generally speaking, the terms “information system” and “data system” are used interchangeably, but they are not the same because a data system can just mean a simple database, which cannot be called an information system.



These data systems support different needs and perform different functions and therefore do not necessarily provide a comprehensive picture of the local educational situation and do not offer the information needed to develop workable solutions to educational problems. Below are some of the data systems that one can find at the local level.

a. Statistical data systems

This is a data system through which local (lower) levels of educational administration (schools and school districts) collect quantitative data about their local education system. Statistical data is collected, such as the number and movement of students, teachers, facilities and pedagogical organization, which allow the measurement of most quantitative indicators of the education system and which can be reported to higher levels of administration. In many countries, this type of data system is used for generating statistical information for comparative purposes (over time across different school years, and between school districts).

b. Student information system

In many countries, a separate data system is put in place to capture real-time data about daily school functions (e.g. attendance, class schedules, test scores, feedback to students and parents). Such a data system, most often based on individual records, is established either on a school's initiative or through a harmonization effort by a higher level of administration using a centralized student identification (ID) system. This data system allows for capturing and analyzing very detailed, desegregated data about students.

c. Resource management system

A third category of data system is one that supports the management of resources. There are typically three types of resources needed for providing educational services: human resources, physical resources and financial resources. Such a system often does not provide tools for analysis of the effectiveness of the use of the resources.

d. Instructional or curriculum management system

This is a data system that exists to support teachers and students in teaching and learning processes. This system provides a unifying framework to support access to curriculum, learning standards and instructional materials such as online learning modules, model lesson plans, assessment tools, performance standards, collaboration opportunities, etc. This data system is relevant for pedagogical purposes, directly supporting teaching and learning processes, therefore helping to improve student learning. It does not produce information for administration of educational services and management of resources.

The problems with this fragmented approach to data collection are as follows:

- ➔ Having multiple, distinct data systems increases the workloads of educators, school principals and district education managers because it increases the burden of data reporting and accounting, thus diverting them from their core business of facilitating teaching and learning processes.
- ➔ Because of the lack of comparison across these data systems, the use of multiple data systems can result in bottlenecks.
- ➔ Local and school actors are not able to combine data from different categories of systems, so cannot link resources with teaching and learning processes and with student learning outcomes.

To support better decisions on education policy and practice, data systems should be able to combine the data on the same student or group of students over time and to compare the performance of students with different educational experiences. An ideal EMIS should therefore provide a comprehensive picture of the education system. This requires the integration of all components and functions into a harmonized system.

IN BRIEF:

An EMIS:

- ➔ **Collects, stores, processes, analyses and disseminates information on the education system.**
- ➔ **Needs to be user-oriented.**
- ➔ **Is a management tool that provides information to users in support of:**
 - administration
 - analysis and planning (at the macro, intermediate and micro levels)
 - monitoring and evaluation
- ➔ **Should provide a comprehensive picture of the education system.**



notes

4.2 Using data at the local level

Data is vital for planning local actions, monitoring student and teacher flows, identifying what the obstacles to learning are (so as to be able to improve the quality of learning), and measuring the progress students make in learning.

4.2.1 Local planning

Microplanning can be defined as a type of planning conducted at the local level to meet local needs and achieve national education goals. During the planning process, it is necessary to keep in mind three fundamental requirements in any education system: equity, quality and efficiency.

Depending on the level of decentralization in the education system, decisions on the allocation and use of human, physical and financial resources are made at the local level to address local problems and to improve the participation of young people in education. Therefore, local decision makers have to acquire the skills and master the tools to plan the delivery of education services within their areas.

In the previous modules, various tools for needs assessment were presented and discussed. Planning local actions and identifying the resources that are needed to implement these actions will require effective management of data and information. Two examples of planning tasks that require heavy use of data and information are presented below:

a. School mapping

School mapping is a planning process that identifies each school and the resources of each school in a certain area. School mapping provides the means to identify the physical elements needed to achieve the overall education goals, and can help ensure the equitable distribution of educational services within and between different geographical areas.

A sizeable quantity of detailed data and information is required for school mapping. This information is required not only during the diagnostic phase, but also when it comes to planning the actions, implementing them, monitoring progress and evaluating the achievements (see Diagram 2).

Figure 2: School mapping cycle



Data and information required for school mapping include:

- Geographical data (location of the schools, climate and topography affecting access to schools, etc.)
- Demographic data (population data, characteristics of the school age population, etc.)
- Geographical and demographic disparities. i.e. differences in enrolments, school distances and school conditions between geographical areas and population groups
- Resource requirements, including the number of teachers needed compared with the current number of teachers actually at each school, school buildings and facilities (needed and actual), school equipment (needed and actual), and instructional materials (needed and actual)

b. Resource projection

Resource projection (also called education policy and finance simulation) is a process that enables planners to create a costed education policy and plan. There are a number of resource projection approaches that can be used. The various modelling approaches and tools used in education planning can be found on a website developed and coordinated by UNESCO on behalf of the Inter-agency Network on Education Simulation Models (<http://inesm.education.unesco.org/>). Most of these simulation and projection tools are relevant for educational planning at the central and provincial levels. But, with some adaptations, these tools can also be used to support the planning process at the local level.

A sizeable quantity of data and information are required throughout the process of education planning and budgeting. Some of the types of data and information required are listed in the table below.

Table 2: Types of data required, primary education level

Independent (decision) variables	Dependent (result) variables
Category “students”	
<ol style="list-style-type: none"> 1. Intake rate in first grade 2. Flow rate 3. Pupils-class ratio 4. Proportion of multigrade classes 5. Proportion of double shift classes 	<ol style="list-style-type: none"> 1. New entrants in first grade 2. Number of pupils 3. Gross enrolment ratios 4. Number of classes/classrooms 5. Number of multigrade and/or double shift classes
Category “Cost and Financing”	
<ol style="list-style-type: none"> 6. Turnover 7. Attrition rate 8. Supervision rate 9. Proportion of non-teaching personnel 	<ol style="list-style-type: none"> 6. Needed teachers and new requirements 7. Other personnel and new requirements 8. Training and recruitment needs 9. Annual attrition of personnel
Category “Cost and Financing”	
<ol style="list-style-type: none"> 10. Initial index value 11. Salary scale and other emoluments 12. Budgetary allocations 13. Macro-economic indicators 	<ol style="list-style-type: none"> 10. Salary expenses 11. Recurrent expenditures 12. Investment expenditures 13. Evolution of education expenditures

Source: Chang G.C. et al, 2001.

4.2.2 Monitoring and evaluation

Introduction

We are all accountable for the work we do and for the use of the resources that we are given, so we need an appropriate monitoring and evaluation (M&E) system to measure how well we have succeeded in our goals and how the resources we were given have been used.

A monitoring and evaluation system needs to be able to answer the following questions:

- **Relevance:** Does the activity address identified needs?
- **Efficiency:** Are we using the available resources wisely and well?
- **Effectiveness:** Are the desired outputs being achieved? Is the organization delivering the results it set out to deliver?
- **Impact:** Have the wider goals been achieved? What changes have occurred for targeted individuals and communities?
- **Sustainability:** Will the impact be sustainable? Will any structures and processes established be sustained?

A good quality monitoring and evaluation system requires reliable data and information, and a well-functioning information management system.

Indicators

One aspect of monitoring and evaluation involves measuring the status of an activity against an “expected target”.

An example of a “target” is the Third Millennium Development Goal (MDG3): Universal Primary Education.

An indicator is a tool to measure whether an expected target (or goal) has been achieved.

An indicator:

- Measures the progress we are making towards the target.

Indicators are measured at the beginning of the activity (this is the “baseline”) and during the activity; then the measurements are compared to see whether progress has been made towards the target.

- ➡ Measures whether the expected targets have been achieved.

The indicators are measured again after the completion of the activity, to see whether the target has been achieved or not.

Example:

A target (goal) of every education system is to achieve MDG3: Universal Primary Education (i.e. 100% enrolment of all children of school age).

One indicator for this goal is Primary Net Enrolment Rate (NER) rate, for both sexes.

This indicator was first measured in 2000 when the Millennium Development Goals were established.

For example, a school in Cambodia measured the indicator in 2000, and found that the NER was 92 per cent. Then they measured the indicator again in 2006 to see if any progress had been made and the NER was 94 per cent. By comparing the two measurements, 92 per cent and 94 per cent, the school could see that net enrolment had increased by 2 percentage points between 2000 and 2006. The school will measure the indicator again in 2015 to see if the target (100%) was achieved or not. The school will also compare the measurement for 2015 with the baseline (the figure for 2000) to see how much progress was made over the 15-year period.

The Education for All (EFA) goals are another example of key education goals. Indicators have been also been formulated to measure progress towards these goals.

The core indicators for the EFA goals are shown in Table 2.

Table 3: The EFA goals and 18 core indicators

Goals	Indicators	
Goal 1: Expand Early Childhood Care and Education	1	Gross enrolment in early childhood development programmes, including public, private, and community programmes, expressed as a percentage of the official age-group concerned, if any, otherwise the age-group 3 to 5.
	2	Percentage of new entrants to primary grade 1 who have attended some form of organized early childhood development programme.
Goal 2: Provide free and compulsory primary education for all	3	Apparent (gross) intake rate: new entrants in primary grade 1 as a percentage of the population of official entry age.
	4	Net intake rate: new entrants to primary grade 1 who are of the official primary school-entrance age as a percentage of the corresponding population.
	5	Gross enrolment ratio.
	6	Net enrolment ratio.
	7	Public current expenditure on primary education a) as a percentage of GNP; and b) per pupil, as a percentage of GNP per capita.
	8	Public expenditure on primary education as a percentage of total public expenditure on education.
	9	Percentage of primary school teachers having the required academic qualifications.
	10	Percentage of primary school teachers who are certified to teach according to national standards.
	11	Repetition rates by grade.



	12	Survival rate to grade 5 (percentage of a pupil cohort reaching grade 5).
Goal 3: Promote learning and life skills for young people and adults	13	Gross Enrolment Rate in technical and vocational education and training.
Goal 4: Increase adult literacy by 50%	14	Number and percentage of persons who passed the basic literacy test.
Goal 5: Achieve gender parity by 2005, gender equality by 2015.	15	Gender Parity Index for GER in primary education.
	16	Females enrolled as a percentage of total enrolment.
Goal 6: Improve the quality of education	17	Percentage of primary school teachers having the required academic qualifications.
	18	Pupil-teacher ratio.



5

This module has explained why and how data are used for planning education development at the local level. It clarifies the purpose of data and information and notes that at the local level, various data systems are often been established for different purposes. To provide more efficient operations, it is important to harmonize all existing data systems into a unified EMIS. This module explains that an EMIS is a management tool that supports the administration of the education system, the analysis and planning of education development, as well as monitoring and evaluation of the system and student performance. The role and functions of an EMIS are to collect, process, analyse and disseminate information for the various users at different levels of education administration.

This module also describes two examples of processes that need data and information: school mapping and resource projection. The module also explains that data and information are also needed for monitoring and evaluation. Raw data and information are required to measure indicators, which are used to identify progress towards goals.

Case 1: Experience in the Philippines – The Community-Based Monitoring System for MDGs

The Millennium Development Goals (MDGs) are eight development goals relating to the delivery of social services. In the Philippines, the delivery of social services is the responsibility of local government units (LGUs). An important prerequisite in the localization of the MDGs is the availability of good statistics and the capacity of the local government to systematically monitor, measure and report on their progress.

The Community-Based Monitoring System (CBMS) provides a good information base for policy-makers and programme implementers to monitor the impact of reforms and policies. The CBMS has been adopted by national government agencies as the local poverty monitoring system and a tool for localizing the MDGs.

Through the CBMS, MDGs were localized by the following:

1. Establishing a MDGs data base: A good number of LGUs have already consolidated their CBMS databases and can generate their own local MDG reports.
2. Formulating provincial MDG reports: Ten provinces have consolidated their CBMS data at the provincial level and subsequently formulated their provincial MDG reports with disaggregated data at the municipal and household levels.
3. Formulation of the Local Development Plans integrating MDG targets: In Pasay City of Metro Manila, it was demonstrated that the results of the CBMS can influence the integration of MDG targets in the preparation of the barangay and city plans.



4. Application in evidenced-based policy making: In the municipality of Mariveles in the province of Bataan, the results of the CBMS released in 2007 were used as a reference in crafting the municipality’s Executive-Legislative Agenda (ELA) 2008-2010.
5. Application in resource allocation and resource mobilization: Localities have utilised CBMS in decision-making, as identification of projects and beneficiaries were based on objective information and not on the political agenda of local officials.
6. Empowerment and capability building of communities and LGUs through the CBMS Process: The LGUs gained the capacity to collect, analyse, and use data in local planning and programme implementation. There is “ownership” of the information gathered and this steered the LGUs and the community to find solutions and act together.
7. Enhanced partnerships: CBMS offers a venue for collaborative efforts among researchers (developers of the tools), academic and training institutes, government agencies, non-governmental organizations, development agencies, communities and local authorities.

Source: UNESCAP. 2011. Promoting the Use of Statistical Data for Policy and Advocacy: Building on Success. United Nations Economic and Social Commission for Asia and the Pacific, Bangkok.

Case 2: Experience in the United States: Use of Education Data at the Local Level

The United States Department of Education Policy and Program Studies Service sponsored a series of surveys, studies and site visits to assess the level of involvement of United States districts in the use of data for instructional improvement. Some key findings were as follows:

- ➔ Districts are still in the process of building their data system technology capacity. Most districts have multiple, distinct data systems. The number of electronic data systems being used to support decisions about instruction in the case study districts ranged from three to seven.

- Districts are taking steps to improve the capacity of their schools to use data in decision-making. One of the most commonly reported district policies to encourage schools' use of data is to incorporate this practice into school improvement planning. Another common strategy for building school capacity to use data includes professional development activities, providing support positions for system implementation, and the development of tools for generating data and tools for acting on data.
- In districts that are leaders in data-driven decision-making, the use of data in schools is encouraged not through extensive formal professional development but rather through ongoing support from colleagues and data coaches who help teachers examine data and develop instructional plans to meet student needs.
- Actions that school principals can take to encourage teacher use of data include designing and implementing regular activities involving the examination of student data and the establishment of an organizational climate of trust and mutual respect. Principals encourage data use by setting an example through their own activities, designating all or part of teacher planning or professional development time as occasions for examining and reflecting on data, and communicating expectations around data use.
- School staff perceptions of barriers to greater use of data include a sense of lack of time, system usability issues, the perception that the data in the system are not useful, and district policies around curriculum coverage or pacing that prohibit modifying learning time to match student needs.

Source: Means, B., Padilla, C., Gallagher, L. and SRI International. 2010. Use of Education Data at the Local Level: From Accountability to Instructional Improvement. United States Department of Education, Washington D.C.

LEARNING FROM THE CASES:

1. What are the different purposes, functions and benefits of data systems for decision-making and monitoring?
2. How can local planners, managers and school leaders support and help sustain the use of data and information in the daily life of data users?
3. What strategies can be considered to strengthen the technical capacity in the use of data and information?
4. What further actions can be conducted to increase access to reliable and relevant data and improve the use of information for decision-making?





What are the main purposes of an education management information system?



What are the main information needs at different levels of educational administration?



Why do fragmented education data systems need to be unified into a harmonised information system?



What is an indicator?



What are some indicators used in education?



notes

8

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