

Professional Development Strand

Unit 6: Teaching Skills and Competencies

Module 6.2 Instructional Skills



Student Support Material

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Unit outline

Unit	#	Modules
Unit 6 Teaching Skills and Competencies	6.1	Pre-Instructional Skills (Core)
	6.2	Instructional Skills (Core)

Icons



Read or research



Write or summarise



Activity or discussion

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Module 6.2 Instructional Skills

Rationale

This module is one of two in a three-credit point unit of study. The actual break-up of topics and time allocation is flexible, and to be decided upon by the lecturer.

The preceding module which introduces this unit is:

Module 6.1 Pre-Instructional Skills

The purpose of the module is to give beginning teachers a firm understanding of the instructional skills required and displayed by creative, reflective and competent teachers. It also expects to provide, develop and sustain the skills of managing a lesson, developing specific skills and facilitating maximum teacher/pupil interaction.

Objectives

By the end of this module, you will be able to:

- Recognise the importance of managing a lesson effectively
- Examine the specific skills which assist in the management of a lesson
- Analyse and identify the stages of a lesson, i.e., introduction, body, conclusion.
- Describe and demonstrate the effective use of teaching aids.
- Identify, describe and demonstrate specific instructional skills, i.e.,

Communication

Questioning and responding

Explaining

Demonstrating

Reinforcing

Evaluating

Maximising pupil involvement

Variability in teaching

- Apply the instructional skills effectively during practicum experience.

How to use this material

This module is written as a series of topics, identified in the table of contents, and by their large sub-headings. Each topic includes some readings, and activities to complete. Your lecturer will guide you through the materials during the lecture program. Sometimes, you may work directly

from the book during the lecture. Sometimes, your lecturer may ask you to complete an activity or reading for homework. Your lecturer may include additional information and topics.

Assessment

Your lecturer will provide details of assessment requirements during the first week of lectures. These assessment tasks will provide the opportunity for you to show your understanding and apply your knowledge of the theory to practical situations.

Recommended texts

Whilst all the readings you require are contained in these resource materials, many have been adapted from the following core textbooks:

Barry, K. and King, L. (1998) *Beginning Teaching and Beyond* (3rd Ed) Social Science Press, Wentworth Falls, NSW.

Bleus, A, V. (1989) *Psychology for Teachers in the South Pacific*. Goroka Teachers College

Farrant, S. (1980) *Principles and Practice of Education*. Longman.

McBurney-Fry, G. (1998) *Improving Your Practicum; A Guide to Better Teaching Practice*. Social Science Press Australia.

Madang Teachers College, Professional Development Strand ((1999). *A Handbook on Teaching Skills for Year One*.

Madang Teachers College, Professional Development Strand (1999). *Advanced Instructional and Management Skills*.

Marsh, C. (1998). *Handbook for Beginning Teachers*. Addison Wesley Longman.

National Department of Education, Papua New Guinea. (1986 /87) *Teaching Skills Series*.

Questioning Skills Book 1

Reinforcement Skills Book

Small Group Discussion Book 3

Sequencing Instruction Book 4

National Department of Education, Papua New Guinea. (1999) *Programming Guide for Lower Primary Teachers (Grades 3-5)*

Turney, C. et al: (1983) *Sydney Micro Skills Redeveloped*. Sydney University Press

University of Goroka, *Basic Teaching Skills and Methods* Course Handbook.

Managing a Lesson

Introducing a lesson

Good lesson beginnings that gain attention and prepare students for learning are important for they positively affect learning (Brophy and Good, 1986). An effective teacher will try to use the introduction to put students in the right mood to assist their learning.

The purpose of this section is to guide you so that your lesson beginning is interesting, purposeful and effective.

1. Get students' attention

Giving attention to what is going to be learned is a very important process of learning. A number of researchers have concluded after studying the research on motivation that the first task of the teacher is that he/she must motivate the student to become involved in learning.

It is important for you to get the students' full attention before commencing teaching. As a rule during practice teaching, teacher trainees should use the same technique to get attention as the teacher.

However, on some occasions you might have difficulty in getting attention. If so, you will need to get attention through consistently applying the following routine activities:

- Call student to attention - signal, tell students why you want them to attend.
- Observe students, note if they are they listening, comment on their responses.
- Start only when students are attentive. This will ensure all students are paying attention and ready to learn.

2. Do preliminary organization

Sometimes you may group students, move them to a different location, or organize materials for individual or group use. If so, give clear and precise instructions. Then check to see that they are understood and carried out.

3. Set the scene

In planning to set the scene, there are three aspects of the lesson introduction that you need to consider:

- **Review students' knowledge.** Check on students' existing knowledge to ensure that they are ready to undertake the learning you have planned. Through brisk discussion and/or questioning, you can remind students of what they already know, have experienced, or expressed an interest in so that they are ready to move on to the unknown. The review section of a lesson should be short, sharp and interesting.
- **Provide an overview of the lesson.** Typically, an overview consists of telling students the purpose of a lesson, outlining its objectives or providing a summary of the lesson that is to follow.

Some teachers like to communicate their expectations for the lesson to the students.

Motivate students with an interesting lead-in activity. The lesson should involve the five senses and, be short, vital and interesting. Useful techniques to introduce lessons include:

- A visual stimulus e.g., an object, model, picture, chart, map, example
- An oral stimulus e.g., imitation of a sound
- Arousal of curiosity or surprise e.g., let's find out what's in this box
- Dramatizing, miming or acting roles, use of puppets
- Setting up a problem: let's find out what happens when we heat this substance
- Repetition of known material e.g., singing a song, reciting a poem, saying number tables
- Pre-testing: having a quiz to find out what students already know about the topic,
- Introducing an interesting skill, which will be learnt during the lesson
- Recalling a previous lesson by discussing or questioning
- Setting a goal e.g., today we are going to test our fishing rods
- Demonstration of a skill or task
- **Link the lesson beginning to what is to follow.** Give clear explanations and directions and check for understanding and implementation. This is an important transition. Lessons frequently break down at this point when students are unclear or confused about what they have to do.

Start confidently. You should always begin in a brisk, convincing, enthusiastic and sincere manner.

Plan the lesson beginning

We have suggested some guidelines in relation to getting attention, preliminary organization, setting the scene and linking the lesson beginning with what is to follow. With these guidelines in mind, you should carefully draft out your lesson beginning. The following questions might help you:

1. What organizational matters do I need to attend to?
2. How am I going to get the students' attention?
3. Do I need to review what students already know (known to unknown)?
4. Should I explain the purpose of the lesson? If so, when?
5. Do I need an interesting lead-in activity?
6. How will I link the lesson beginning with the main part of the lesson?
7. Is the timing of my lesson beginning right for the length of the lesson?

Once you have your lesson beginning, mentally rehearse until you are sure of each aspect. This will help you get the lesson off to a smooth start.



Look at the two pictures. Compare the motivation, attention and interest of the group. How has the teacher managed the learning in each of these situations?

6.2: Activity 1

1. *List five techniques, which you can use to get student's attention.*
2. *Refer back to a lesson plan you wrote for peer or micro - teaching. Write down five different ways in which you could begin the lesson.*
3. *You are told to teach a maths lesson on the topic, subtraction of tens and hundreds, for Grade 4. Plan a good lesson beginning so that they reflect the principles outlined in this section.*

Managing the class

Student learning is the key outcome for your teaching, so teachers need to employ a number of strategies to manage the learning environment.

Key terms

- **Management** is the manner in which individual teachers organize their approach to learning and the administration of the classroom to promote student learning.
- **Control** is when a teacher directs events during a lesson without calling on colleagues for help

- **Discipline** is seen when students have been trained to obey or comply (through maintaining authority and control in class by teachers). Class control and discipline is the fundamental prerequisite for competent teaching and learning.

Motivation

Motivation is the reason for doing something. It is an incentive to act in a certain way.

Motives are related to needs and all people have what are referred to as human needs, such as hunger, thirst, breathing and safety.

The motive to survive will ensure the fulfilment of those needs. In all human behaviour, there is some form of motivation because there is some need that has to be satisfied. Human needs can be placed in hierarchical order:

Highest needs	- the need for self satisfaction needs for realistic self - concept
Lowest needs	- love and belonging needs - safety needs - physiological needs (of the body)

There are different types of motivation. The best kind is when the person's reason for acting is the enjoyment or satisfaction from the task itself. When a person performs a task to satisfy a lower need, they will cease the task when there is no longer any need. For instance, a child who reads a book for enjoyment will keep on reading even when there is no teacher to encourage them. On the other hand, a child who reads only because it is required, for reward or to avoid being shamed, will not continue reading when there is no pressure.

We can apply these human needs to the classroom situations.

- **Attend to physical needs first** - they must be satisfied before higher needs become important to the child. It is impossible to arouse interest in a task if a child is weary from sitting in the same place for a long time, if hungry or very tired, or unable to see the blackboard clearly.
- **Safety needs are next.** A child will not learn well if afraid of the teacher's anger, or afraid of being shamed.
- **Love and belonging needs** - The child needs to be acceptance from the teacher and peers.
- **Need for a realistic self-concept.** The child needs to have an idea of self worth. It is important that the goals set are achievable to develop self concept and self confidence.
- **Need for self-satisfaction.** Activity methods promote learning. If the activities are motivating, the child's efforts will be sustained for longer periods.

Age is important when considering motivation. A small baby experiences only physical needs. Later, safety needs, love, and belonging needs surface. Small students can often only be motivated by lower needs e.g., winning stars, winning team games in spelling. Older pupils, however, can be motivated to learn spelling so that they will produce better work.

In teaching, motivation is often related to arousing students' interest to learn. There are two types of motivation.

1. Extrinsic motivation

Extrinsic motivation is externally controlled by incentives or rewards to perform an activity. This type of motivation can be effective for setting the scene for a lesson. This may include the promise of teacher approval, favourite activities or special privileges. These might include free time, playing games, working on special activities or displaying work.

These extrinsic motivators must be used with care and sensitivity. Their appropriateness and effectiveness will depend on how appropriate they are for your class and how skilfully you apply them.

2. Intrinsic motivation

Intrinsic motivation comes from within. It is the inner liking or enjoyment of doing an activity. Intrinsic motivation is longer lasting as it gives real value to what is learned and an inner satisfaction to the learner. This is the type of motivation that teachers should try to foster through interesting and varied activities.

Factors to consider when motivating students to learn

1. *Learning environment*

A classroom should be organized in such a way that students entering it would want to learn. Proper seating arrangements, good displays, wall charts, pictures, mobiles, etc, help create a happy atmosphere for learning.

2. *Teacher's responsibility*

A warm, pleasant and caring personality enhances a good teacher-pupil relationship. The teacher's personality will influence the behaviour of students in the classroom.

3. *Competition*

Students like to compete when they do a task. A teacher could challenge the students to achieve the learning objectives with some competitive activities arranged for students either individually or in teams.

4. *Use of the senses*

Learning should involve as many senses as possible. The selective and appropriate use of aids will give students the opportunity to make use and explore as often as possible the different senses they have such as seeing, smelling, hearing, touching and tasting.

5. *Enjoyment*

Students must enjoy their lessons. The use of a variety of teaching methods or strategies should be carefully planned e.g., games, role-play, storytelling, discovering, practical work and co-operative learning.

6. *Satisfying needs*

Lessons that satisfy needs of students will always be interesting and motivating to them. Teachers should aim to satisfy some of their students' physical, intellectual, social and emotional needs.

7. *Novelty of an activity*

Students are naturally curious. They are fascinated by new, interesting things that are different from what they see everyday. Teachers should think of "novel" activities for students to do, not just the same routines all the time.

One of the main functions of motivation is to lead students into the major tasks or learning activities in the lesson. Following is a list of some of the "lead-in activities" that could motivate students:

1. Look to the chalkboard - students look at an illustration, puzzle, example or map on the chalkboard.
2. Demonstration - demonstrate a skill or task.
3. Write a statement - students write a brief response/statement to a question.
4. Newspaper clipping - display and talk about a newspaper clipping.
5. Question, problem or quiz - pose a question, set a problem or have a written quiz.
6. Discussion of an event/issue - e.g., the national elections, free education, person of significance.
7. Relate a personal experience - relating a personal experience.
8. An object / model - students to examine an object or model.
9. A game - a physical or an aural (listening) game.
10. A mime - a short dramatic enactment or role-play.



6.2: Activity 2

How do you motivate pupils?

Make a list of different ways to motivate pupils during your peer, micro or teaching practice periods . You may have seen some examples during school experience and micro teaching sessions. See if you can exceed ten or even twenty different ways. For example,

- *Give points to groups who are first to clean up after an activity.*
-
-

Using teaching aids

Teaching aids and resources can play an important role in motivating and stimulating your lesson presentation. Refer back to Module 6.1 for further ideas.

Body / Presentation

This section is also called the content of the lesson. It is the main part of the lesson where most of the teaching and learning processes take place. The main teaching points are delivered using different teaching strategies. Some of the activities that can take place in this part of the lesson include:

Discussion - in groups (small/large)

The teacher and the student or group of students talk about a topic, for example, the work that our village court systems do.

Listening

Students listen to a story, a radio broadcast, a poem, or a riddle.

Discovery

In Mathematics, Science or Community Life materials can be organized to help students to find out things for themselves.

Practice

Pupils may practice handwriting, a skill in physical education, using a sentence pattern, or a number fact.

It is important throughout the lesson to see that the different parts follow each other logically. It is also important that there is a logical development within parts. When planning the development of a lesson, basic teaching principles such as working from the simple to the difficult and working from the known to the unknown, should be considered. Developing lessons in a sensible and logical sequence enables efficient use of teaching time and effective planning.



6.2: Activity 4

You are asked to teach a community life lesson on different forms of sea transport in Papua New Guinea. Do a lesson plan and show clearly your body of the lesson. Show the type of teaching skill to be used and the activity the pupils will complete.

Sequencing instruction

Sequencing instruction connects the line of events, ideas or activities. It also requires organising the content and learning experiences into logical, connected series of activities or steps.

We can only do the sequencing however, after we have thought about who we are teaching, what we want to teach them, what resources we have, how much time is available and what skills we have as teachers, etc.

There are two important reasons for sequencing instruction:

- Each lesson must have a direction
- Each lesson must build upon what has been previously been taught and introduce the new information as part of a thought-out sequence

Steps in sequencing instruction

You need to follow the steps set out below to make sure that your lesson contains activities, which are in a correct and logical order and are graded suitably.

- 1 Set an aim - have a clear idea of what you want achieve in the lesson.
- 2 Assessing present pupils - determine what your pupils already know before you start the lesson.
- 3 Identifying the new - define the new knowledge and skills your students need to achieve the aim.
- 4 Setting objectives - say what you expect your pupils to be able to do.
- 5 Selecting and sequencing - work out what activities will best achieve the objectives.
- 6 Checking the sequence - make sure that the activities follow one another in small, manageable steps. Make sure that you do have your lesson activities correctly identified and in a sequence as they will be presented in class.
- 7 Classroom teaching
- 8 Evaluation

Checking the sequence

In the presentation of your lesson, you have to decide on the activities, which will take you from what the students already know to what you want them to know. You have to organize these activities into a logical sequence.

You now need to examine this sequence and make sure that the new knowledge and skills are presented in small manageable steps. Progress from one activity to the next should be smooth. This means that the activities should follow one another logically and should not involve sudden jumps in difficulty between activities.

There are certain principles that can help you to do this:

1. It is often better to work from simple examples to more difficult ones. This is obvious in mathematics but also applies to most other subjects.
2. It is often good practice to provide practical examples before teaching theory. It should be remembered however, that theory can be successfully taught first in many situations.
3. Reinforcement is an important part of any lesson to ensure that students do not forget the new knowledge and skills.

6.2: Activity 5

1. *Plan a Maths lesson to teach the addition of decimals.
Then sequence the instructions and activities to teach the lesson. Remember to write the steps in sequence. Your examples should also be from simple to ones that are more difficult.*
2. *Choose a topic, which you will be teaching during teaching practice. Write out the activities, you would use to develop these skills and decide on a logical sequence for them. Give actual examples you would use to make sure your activities go from one to the next in small smooth steps. Exchange you plan with a peer for remarks.*

Pacing

Pacing is timing and is concerned with giving enough time to each section of the lesson. For instance, in a thirty-minute science lesson the introduction can be given in five minutes, the body or content can take twenty minutes and five minutes can be used for the closure. In that way, time is used well and all the parts of the lesson are covered within the given time.

The correct allocation of time in planning enjoyable and successful lessons is very important. Lesson plans allow for two approaches to timing. The first approach focuses on the lesson's **total duration**. Lessons for younger pupils should be much shorter in length than for older

pupils. This is because pupils' attention spans increase with chronological years. Very young students have brief attention spans and activities should be planned for fifteen minutes at a maximum. Many activities for very young students will be shorter.

The second approach to timing of lessons is more specific. In a lesson plan, each activity is broken down into separate steps. **Each activity or step** is allocated a **period of time** for students or teacher to complete the step. Some steps may only take a few minutes, while some steps will take ten to twenty minutes. There are no set formulae for time allocation and steps. This is determined by the teacher's knowledge of the students in terms of their age, ability, previous skills, interest and motivation. An introduction to the lesson may take a teacher five minutes, whereas a step (activity) in the middle of the lesson using small group processes and a variety of resources may take twenty minutes.

As you plan for a logical sequence you need to think of the amount of time that you will spend on each part of the lesson and the pace at which you will teach. Remember the purpose of each part of the lesson and spend the necessary amount of time on that section. Some new teachers find it helpful to write down how many minutes they plan to spend on each part of the lesson. The teacher controls the pace of the lesson. A good teacher is flexible and is able to decide if students need to spend longer on the section than planned, or if they have learnt it more quickly than expected. The rest of the lesson is adjusted as required.

After you have thought carefully about the pace of the lesson you need to think further about what is going to happen in each part of the lesson.



6.2: Activity 6

Plan a 30-minute lesson and allocate sufficient time to the introduction, body and conclusion. Then during your school experience (micro-teaching) ask your peer to time you while you present the lesson to the class or group.

Reflect on your use of time and how well you managed to achieve your time allocations. Was it difficult to stick to the times outlined? What factors influenced you to go over/under time if this occurred?

Conclusion

The conclusion refers to those actions or statements that are used by teachers to conclude a lesson presentation. At the time of the conclusion, teachers help students bring the main points of the lesson together in their own minds and summarize the key points, issues and terms that were presented during the lesson.

Research has shown that learning increases when teachers make a real effort to help the pupils organize the information that has been presented to them and see how this information fits with other knowledge.

Purpose of conclusion or closure

1. To draw attention to the end of the lesson

The teacher who uses closure effectively towards the end of the lesson gets it across to the pupils that they have reached the important point of time in the lesson when the lesson must be "wrapped up". This activity of wrapping things up, reviewing, summarizing or testing must be carefully planned, just as the introduction must be carefully planned. The teacher must be aware of the time and must begin the closure in plenty of time before the lesson or activity is due to end.

2. To help organize pupil learning

In the time for conclusion, it is the teacher's responsibility to tie all the information and learning from the activities into a meaningful whole. The students should not be left with a feeling of incompleteness or frustration. The skilful teacher will show at the end of the lesson how the main parts/points of the lesson make up a complete picture.

3. To reinforce the major points learned

The teacher should briefly focus again on the key ideas or processes that were presented in the lesson. The objective here is to help the pupils grasp and hold in their minds the important points presented in the lesson. This will increase the chances that they will be able to recall and use the information later.

Ways of concluding a lesson

Consider the age and ability of your pupils when deciding on a method to conclude a lesson.

- **Tidy up:** In activity-based lessons, materials should be collected and put away before the actual lesson conclusion as they can be distracting. Where there are limited resources, it is important that concern is shown for the careful distribution, collection and storage of resources.
- **Recapitulate:** Where appropriate it is important that a teacher summarizes, repeats and reinforces the main points of a lesson. This may be done by the teachers or better still, a pupil working from a chalkboard summary, by oral questioning or a brief written quiz.
- **Evaluate:** In addition to any formative evaluation (during the lesson), summative evaluation (at the end of the lesson) is a natural part of a lesson closure. Student mistakes or parts of the lesson which students found difficult should be noted for re-teaching in a following lesson. If written work has been completed, it should be checked and marked and a judgement made about the degree of student success.
- **Encourage transfer of learning:** Transfer of learning occurs more readily when students experience understanding and success during lesson times. The application of knowledge, skills and attitudes to real life or a new situation should be emphasized.
- **Give feedback on student performance:** Some positive feedback on student performance, such as a comment, reward or display of work, is often a satisfying way of concluding a lesson.

Encouraging students, where appropriate, to comment positively on each other's work promotes a positive learning environment.



It is important to bring the class back together to conclude the lesson, especially after completing group work.

6.2: Activity 7

Examples of common closures badly used in the classrooms:

Teacher A: "Okay. There's the bell for break. Let's stop and go to recess."

Teacher B: "Time for recess. All right. We'll stop here and continue at the same point tomorrow".

Teacher C: " Any questions? No? Good. Let's move on to the next chapter"

What's wrong with the above closures/conclusion?

You are about to end a lesson on Grade 5 Community Life, Our Neighbours, and Indonesia. You have just taught the class on exports, products, people, and government of Indonesia.

How would you bring the lesson to an effective closure/conclusion? Avoid the above poor or bad ways of concluding.

Evaluation

Evaluation may also be part of the lesson conclusion. For instance, if the students have been doing written work, it should be checked or marked. This may be through a display of work, questioning, discussion, or oral marking. A brief show of hands on items correct can give you an indication of the success or otherwise of your learning objectives. End of lesson evaluation provides the opportunity for correcting difficulties on the spot. It also shows the students that you are interested in their work.

Teachers should ask themselves,

What will I use to measure students' success in achieving the set objectives? What evidence will I gather to support my beliefs?

Student evaluation should be planned in conjunction with lesson objectives. When we first think of our objectives, we consider the ways and means of evaluating these objectives. This can include the following examples.

- Calculating the mass of different sized objects as an objective will result in the teachers marking of a student worksheet as a means of evaluation.
- The making of a model may be used in evaluation of a science objective, requiring students to demonstrate an understanding of water tension.

Teacher or self evaluation

Following the completion of each lesson, teacher (or self) evaluation occurs. The teacher considers all aspects of the lesson's progression and considers his/her own performance and interaction. It is normal to include self-reflection at the conclusion of the lesson plan.

Several questions are useful in aiding self – reflection/ evaluation. These are:

- What were the strengths of my lesson?
- What were the weaknesses of my lesson?
- What practices and activities worked? Why were these successful?
- What didn't work? Why was this?

After considering these questions in detail and recording a response, the teacher considers future lessons. To this end, a teacher asks:

- What will I do differently in the following lesson?
- How do I expect this change to be beneficial?



6.2: Activity 8

Construct a lesson plan for your microteaching. Do the following in your planning:

In line with your lesson plan, prepare some evaluation questions to ask the pupils at the end of the lesson.

These questions should test the achievement of your lesson objectives.

To help you to see if you have achieved your objectives prepare several questions to ask yourself for self-reflection and evaluation. .

Communication

Adapted from Barry K., King, L (1998) Beginning Teaching and Beyond. Social Science Press.

Communication is a skill that includes other related skills such as demonstrating, explaining, presenting, sequencing, assisting in retention of information and transfer of learning.

Clarity of communication is a most important instructional skill, for there is a close relationship between clarity and student achievement . By clarity of communication, we mean **how clearly a teacher explains subject matter to students**. Students who were asked to describe what good teachers do to communicate effectively gave the following responses. (Kennedy, Cruikshank, Bush and Myers, 1978, p.6).

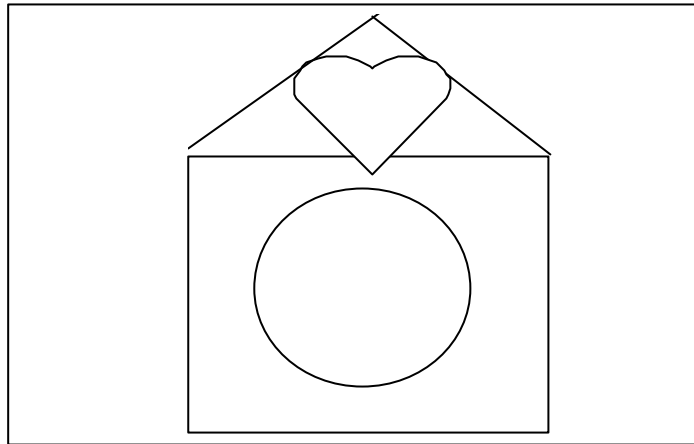
1. Give explanations we understand.
2. Teaches at a pace appropriate to the topic and us.
3. Tries to find out if we do not understand and then repeats things.
4. Teaches step-by-step.
5. Describes the work to be done and how to do it.
6. Asks if we know what to do and how to do it.
7. Prepares us for what we will be doing next.
8. Gives specific details when teaching
9. Repeats things that are hard to understand.
10. Works examples and explains them.
11. Gives us a chance to think about what's being taught.
12. Explains something then stops so we can think about it.
13. Shows examples of class work and homework.
14. Gives us enough time for practice.
15. Answers our questions.

6.2: Activity 9

Try this activity with your partner. It is an exercise to see how well you communicate.

Your partner will need a piece of paper and a pencil / pen.

1. *Ask your partner to sit so his/her back is facing you.*
2. *Give verbal instructions so your partner will draw the picture below. You may not describe the picture to help them, just instruct as clearly as you can.*



Ask your partner to show you the finished picture. Does it look the same?

3. *Discuss what information was important in reproducing the picture accurately and how well was the information communicated.*
 4. *Swap over, and you have a turn. Your partner can make up a different picture for you to draw.*
-

Researchers have also established behaviours which teachers should adopt when aiming for clarity.

Evertson (in Barry and King, 1998) suggest the following teacher behaviours:

- Stating lesson goals and listing major objectives on the board.
- Presenting information in the appropriate sequence and emphasising important points.
- Working from an outline with complex content and providing it to the students visually (e.g. on a transparency or the chalkboard) as well as orally.
- Preparing students for transitions by giving them warning; telling students what to expect and why the activity has changed.
- Giving step-by-step directions, making sure that everyone is following them.
- Sticking to the topic and making certain that the main concept is understood before adding complexity.
- Teaching basic skills to an over learned (highly developed) level before presenting refinements.

- Having many, varied example and planning adequate demonstrations and practice time.
- Using words that students understand, repeating and restating major points and key ideas; checking frequently to see that students are with you.
- Be specific and direct.
- Referring to the concrete object whenever possible. Being as precise as possible. Specific information is more interesting and easier to remember than vague facts.

 **6.2: Activity 10**

During your next schools experience visit, make a checklist of the skills discussed above, and observe your supervising teacher. Does the teacher use many of these communication skills? Make a simple checklist and record your observations.

Verbal and non-verbal communication

*Adapted from Marsh, C (2000). **Handbook for Beginning Teachers**. Addison Wesley Longman.*

Communication is the basis for all human interaction. Communication can be defined "as the **sharing of messages** or attitudes that produce a degree of **understanding** between a sender and a **receiver**". (Turney in Marsh, 2000) In the classroom it involves exchanging information constantly as the process involves a number of persons receiving and sending messages.

Verbal communication is what most teachers do most of the time. Various research studies have demonstrated that teachers do most of the talking in classrooms (Flanders, 1970), Bennett et al. 1984) Much of the talking done by teachers is about management and supervision of tasks. Very little time is directed at posing questions about content, and generally challenging students to become involved in problem solving and higher order thinking.

Non-verbal communication is used by teachers to support their verbal communication.

Amidon (1971) refers to four non-verbal dimensions of teachers' behaviour in the classroom:

- Classroom setting - the physical arrangement of desks, tables, chalkboards provides clues about what type of teaching will occur.
- Curriculum materials - the presence or absence of textbooks, paper, crayons, and audiovisual aids provide further clues about the type of teaching.
- Non-verbal behaviours- the use of particular gestures, facial expressions, physical movement
- Combinations of the above symbols.

 **6.2: Activity 11**

Find a partner. Think of a situation you would like to communicate (e.g., you are mad with them because they let you down). Use as many non-verbal communication skills as you can to help you explain your situation. Ask your partner to write them down. Discuss the impact they had on your communication, then swap roles.

Summing up communications

Communication does not only depend on the words we say (verbal) but also on the non-verbal (body language, gestures, etc) as well as our vocal presentation. What we see with our eyes has a stronger impression on us than what we hear and the tone of our voice is often louder than the words we say. If you think about it, you realise that when you first meet someone, you usually jump to a strong first impression based on what you see. Before that person opens their mouth, you already have 'sized' them up. Once they speak, your impression is further developed by the sound of their voice. No matter how nice the words may be, if they are spoken in an abrupt tone or with a lifeless voice, nice words will not sound nice. People, especially children, hear the tone before they hear the words. They are not only keenly observant, but sensitive and curious of how their teacher communicates to them.

In summary, there are three ways we must remember when we communicate:

1. Verbal communication - Refers to your choice of words (7%)
2. Vocal communication - The tone of your voice (38%)
3. Non-verbal communication - Your body language, facial expressions, manner of dress, eye contact, posture, etc. (55%)



Comment on the teacher's method of communicating. What is she doing to get her message across?

Explaining

*Adapted from Barry K., and King, L. (2000) **Beginning Teaching and Beyond** and Madang Teachers College (1999) **Teaching Skills for Year 1.***

In the classroom, there are two main things that we communicate to our students and these are; the **content** we want them to learn and the **procedures** we want them to follow to facilitate learning. To use our communication skills effectively, we need to consider the following:

- Understanding – content / information to be learnt
- Structuring – organisation of material
- Sequencing – arrangement of information
- Explaining – getting your message across

Plan the explanation

The key to a good explanation is to plan it. Follow these steps to assist your planning.

- First, decide precisely what you want to explain to the students. Ask yourself questions about the topic, such as:
Who did ...? What is....? When does....? Where is....? How does....? Why is.....?
- Second, read the topic carefully. Pick three or four of the main points and sequence them in logical order, progressing from the easy to the more difficult. Take special note of the areas in which you think might cause difficulty and give attention to how you will present them.
- Where appropriate, plan to use chalkboard, pictures, diagrams or models to add interest and impact to your explanation. Student participation and first-hand experience should be included as much as possible.
- When you have done this basic planning, make sure you *thoroughly understand* your content. Teachers who really know their subject matter give clearer explanations than teachers who are not sure of, or do not know, their subject matter- and this results in better learning. When you have completed your planning, write down the main steps in your lesson plan, which you will be able to refer to during the explanation.

Present the explanation

Having taken so much care with your planning you will want to present your explanation as effectively as possible. These suggestions should prove helpful.

Be confident and enthusiastic

Many student teachers lack confidence in their first attempts at explaining. In order to gain confidence, attempt short and simple explanations first, perhaps with a small group of students, then gradually extend to the whole class.

Stand in a position where everyone in the class can see you and give an appearance of firmness and self-assurance. Your body movement, facial expression, gestures, and eye contact with students is most important. You should also try to show interest and enthusiasm to the students.

Project voice clearly

A quiet voice lacking in variation and enthusiasm leads to boredom and inattention.

It is important that your voice is clear to all students in the class. The volume and the expressiveness should be varied to emphasise key points. For example, effective teachers lower their voices and slow the rate of speech when they want to “force” students to listen to important points. It will also help you to maintain attention if you vary the pace of your speech. Above all, do not rush your rate of speech. In this regard, try to practice pausing. A pause can help you emphasise a point and it gives students time to think.

Match language to the level of the students

It is important that you make sure you use words, phrases, technical terms and ideas that students understand. In general, it is a good rule to keep your language as simple as possible.

Signpost the presentation

In giving your presentation, do it in a way that makes each step or transition clear to the students. At the outset, gain full attention and state what you are going to explain so that students can tune in to the topic area. Then, as each point is made, signpost it with a phrase such as “The first point is,” or “I want you to pay particular attention to this point because it is a difficult one” or “I want you to remember” or “the next point is”. This helps students focus on the important or difficult points. You can also use your voice, the chalkboard, an overhead or chart to signal changes from one point to another.

Check understanding

When you are explaining, give students the opportunity to think and ask questions. It is also important that as you talk, you watch the students for signs of boredom, restlessness or confusion. In addition, check through questioning, testing or demonstration, that the students understand. If it becomes clear that they do not understand, stop and repeat or summarise the points you have made. These may need to be explained in a different way with more examples given to clarify difficult points.

At the conclusion of your explanation, review main points and check understanding through student discussion, participation or practice.

 **6.2 Activity 12**

Read the following transcript of a lesson taken by Paul. As part of the lesson, Paul was expected to explain a map of an area containing artefacts. The map had a key which related to where the artefacts were located on the map

Numbered artefacts

- 1. Bush knife*
- 2. Cooking pots*
- 3. Feathers*
- 4. Bow and arrow*
- 5. Digging stick*
- 6. Woven baskets*
- 7. Hand axe*

Paul's explanation and the student's understanding are transcribed below:

"And here we've got some things we call artefacts – bush knife, cooking pots, feathers, bow and arrow, digging stick, woven baskets and a hand axe"

A little later, Paul tries to re-explain artefacts:

"Artefacts – um. These things, all those other things that are on that- okay?"

Confusion was evident when the students began to work.

Paul: (talking to a student) "I don't think that's right Sam...artefacts are these things (pointing to the key on the map)

Paul: (to two other class members) "These are artefacts – (pointing to the key on the map). Do the ones you think are easiest first – you don't have to do them in any order- artefacts are these things. "

What mistakes do you think Paul made in his explanation?

 **6.2: Activity 13**

Plan a 10-minute explanation of a topic with which you are familiar. Present your explanation to a group in your class and ask them to give some feedback about whether you are clear and easy to understand.

Use the following checklist:

- *Confident and enthusiastic manner*
 - *Clear projection of voice*
 - *Language matched to the level of the group*
 - *Essential points covered*
 - *Used appropriate examples and techniques to emphasise main points*
 - *Where appropriate, resources were used effectively*
 - *Explanation was appropriately paced*
 - *Students given opportunities to think and respond*
 - *Checked that explanations were understood*
 - *Reviewed progress*
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Demonstrating

*Adapted from McBurney-Fry, G. (1998), **Improving Your Practicum**. Social Science Press. Barry K., and King, L. (2000) **Beginning Teaching and Beyond** Social Science Press.*

A demonstration is often useful in clarifying and developing greater student understanding and knowledge. Demonstrations help the teacher to establish the correct process or skill firmly in the student observer's mind. It is very important that the demonstration is clear and correct. A poor or incorrect demonstration, once established in the student's mind, is difficult to erase.

What are the advantages in using demonstrations?

- Demonstrations focus student understanding on the immediate task. By demonstrating a process or skill, the impact on student learning is immediate.
- Demonstration allows teachers to provide students with examples of the obvious and concrete. This means students are able to discuss or question, and to touch or feel. For students who learn visually, demonstration has enormous advantages.
- Demonstration is personal to students. Regardless of the number of other students watching, each individual student is able to personally watch and establish connections.

Demonstration allows every student to relate previous learning and life experiences to the current moment.

- Organised and effective demonstrations are obvious and clear, so they develop and enhance student understanding. There is no need to hypothesise or theorise because the concept is in front of the learner.

While many demonstrations begin as teacher centred strategies, there are enormous advantages in student participation and repetition of the demonstration. This allows students to experience or practice the process or skill. It is often helpful to allow students the chance to practice a few times to ensure smoothness and familiarity of learning.

Some considerations when presenting effective demonstration lessons are as follows:

- The activity should be appropriate to the age, ability, interests and needs of the student
- The task should be clearly explained – step-by-step in brief, simple terms
- Demonstration in different forms should be used where possible
- All students should be able to see and hear the explanation and demonstration
- There should be as much student involvement as possible
- Stop and check understanding between transitions and important points
- Allow for practice after the demonstration, before the activity is independently done by the students

One way of planning a demonstration strategy

- Set the scene
- Review previous work
- Explain and demonstrate the new material
- Students do one or two practice examples
- Provide feedback and, if necessary, reteach
- Explain and demonstrate the next part of the material
- Students do a few more examples
- Provide feedback, and re-teach as necessary
- Review material and transfer to a new context

 **6.2: Activity 14**

Choose a skill that you are familiar with to demonstrate. It could be making something, fixing something or showing how to use a piece of common everyday equipment. Plan your demonstration in writing, and then carry out the demonstration for the members of your group. Each member of the group should have a turn at demonstrating their skill. The rest of the group can provide feedback on how effective the demonstration was. What was it that made the demonstration effective? If the demonstration was unclear, how could it be improved?



Students from Ambar Demonstration School watching a demonstration on the computer.

Questioning

*Adapted from Barry K., and King, L. (2000) **Beginning Teaching and Beyond** Social Science Press. Madang Teachers College (1999) **Teaching Skills for Year 1.***

Questioning is an important tool for both teachers and students. Teachers will ask questions of students as a means of clarifying understanding about a topic and students will also question the teacher. Questioning accounts for a high proportion of teacher talk, estimates from research are as high as 80%.

Teachers tend to ask questions of students for a variety of purposes, not all of which are directly related to the topic being taught. Some examples of purposes include:

- To get a particular student to pay attention and to participate
- To test a student's knowledge of the topic
- To review understandings of the topic
- To diagnose a student's weakness
- To motivate students
- To stimulate particular kinds of thinking
- To build up a student's security when the teacher is confident that the student will respond correctly
- To control the behaviour of particular students or the whole class

6.2: Activity 15

During your next school experience visit, take a 10-minute period of teaching and record how many questions were asked, and by whom (students or teacher). Do you agree that questions take up a large percentage of teaching and learning time?

Classification of questions

*Adapted from Marsh, C (2000). **Handbook for Beginning Teachers.** Addison Wesley Longman.*

One way of thinking about questions is to classify them into two main categories.

Psychosocial reflects relationships between students and the teacher. e.g., *Does anyone have a dog or a cat?*

Pedagogical questions focus upon the teaching and learning of specific knowledge, skills and values e.g., *What is the capital of Papua New Guinea?*

Another way of classifying questions is to group them into analytic, empirical and valuative.

Analytic questions probe student's understanding of the meaning of terms, symbols or concepts. e.g., *what is the square root of 49?*

Empirical questions require verification by evidence from our senses, e.g., *If you put an ice-tray from the refrigerator onto a bench, will it sweat or remain dry?*

Valuative questions draw responses from students that praise, blame, criticise or somehow represent a value orientation, e.g., *Which is your favourite province, and why?*



6.2: Activity 16

Write two examples of each type of question. Ask your question to a partner who will try to classify the question correctly.

Bloom's Taxonomy

A classification developed by Bloom (1956) that has been widely used for forty years is known as the cognitive domain taxonomy. Curriculum planners and teachers have used the six major areas included in this taxonomy extensively in planning a comprehensive array of classroom questions. The six major areas include:

- Level 1. Knowledge requires the student to recognise or recall information**
e.g., In what year did Sir Mekere Morata become Prime Minister of PNG?
- Level 2. Comprehension requires the student to receive what is being communicated and to organise and arrange it mentally and describe it in his/her own words.**
e.g., What is the main idea presented in this paragraph?
- Level 3. Application requires students to apply a rule or process to particular, concrete situations.**
e.g., If $x = 2$ and $y = 4$ then $2x + 3y = ?$
- Level 4. Analysis requires students to think critically and in depth; to break down communication into its constituent elements.**
e.g., Now that we have studied the theories of adult learning, what implications can be made from examining each condition of learning?

Level 5. **Synthesis requires students to work with elements or parts and combine them together to form new patterns or structures.**

e.g., If we were to create a new student council for our college, what would it look like?

Level 6. **Evaluation requires students to make judgements about the merit of an idea, a solution or a problem, according to certain criteria.**

For example, What are the important arguments for privatisation of government services in PNG?

Research shows teachers tend to only use the lower levels of questions with their students and rarely use the higher levels.

 **6.2: Activity 17**

Look at the table of Bloom's taxonomy on the following pages. Then read the newspaper article which follows. Write at least two questions for each of Bloom's categories. Swap with your partner and complete the answers. Discuss which categories were the most difficult to write and answer. Why?

Effective questioning is a very important tool for teachers. Plan your questions to include higher level thinking skills as well as content and comprehension questions.



BLOOMS TAXONOMY

LEVEL OF THINKING	USEFUL VERBS	SAMPLE QUESTION STEMS	POTENTIAL ACTIVITIES AND PRODUCTS	THE CHILD..
Knowledge	<p>tell list describe relate locate write find state name</p>	<p>What happened after..? How many...? Who was it that...? Name the...? Describe what happened at...? Who spoke to...? Tell why...? Find the meaning of...? What is...? Which is true or false...?</p>	<p>Make a list of the main events of the story. Make a timeline of events. Make a facts chart. Write a list of any pieces of information you can remember... List all animals in the story. Make a chart showing... Make an acrostic. Recite a poem.</p>	<p>responds recalls absorbs recognises</p>
Comprehension	<p>explain interpret outline discuss distinguish predict restate translate compare describe</p>	<p>Can you write in your own words? Can you write a brief outline? What do you think could have happened next? What do you think? What was the main idea? Who was the key character? Can you distinguish between? What differences exist between? Can you provide an example of what you mean?</p>	<p>Cut or draw a picture to show a particular event. Illustrate what you think the main idea was. Make a cartoon strip to show the sequence of events. Write and perform a play based on the story. Retell the story in your own words on a tape. Paint a picture of some aspect of the story you liked. Write a summary report of the event. Prepare a flow chart to illustrate the sequence of events.</p>	<p>explains translates expresses locate review</p>

<p>Application</p>	<p><i>solve</i> <i>show</i> <i>use</i> <i>illustrate</i> <i>calculate</i> <i>construct</i> <i>complete</i> <i>examine</i> <i>classify</i> <i>demonstrate</i></p>	<p><i>Do you know another instance where...?</i> <i>Could this have happened in...?</i> <i>Group by characters such as...?</i> <i>Which factors would you change if...?</i> <i>Can you apply the method used to some experience of your own...?</i> <i>What questions would you ask if...?</i> <i>From the information given, can develop a set of instructions about...?</i> <i>Is this information useful if you had a ...?</i></p>	<p><i>Construct a model to demonstrate how it will work.</i> <i>Make a diorama to illustrate an important event.</i> <i>Make a scrapbook about the areas of study.</i> <i>Make a papier-mache map to include relevant information about an event.</i> <i>Take a collection of photographs to demonstrate a particular point.</i> <i>Make up a puzzle game using ideas from the area of study.</i> <i>Design a market strategy for your product using a known strategy as a model.</i> <i>Make a clay model of an item being studied.</i> <i>Write a textbook for others about...?</i></p>	<p><i>solves problems</i> <i>demonstrates</i> <i>dramatises</i> <i>illustrates</i> <i>operates</i> <i>schedules</i></p>
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Analysis	<i>analyse</i> <i>distinguish</i> <i>examine</i> <i>compare</i> <i>contrast</i> <i>investigate</i> <i>categorise</i> <i>identify</i> <i>explain</i> <i>separate</i> <i>advertise</i>	<i>Which events could not have happened?</i> <i>If...happened, what might be the ending have been?</i> <i>How was this similar to..?</i> <i>What was the underlying theme of...?</i> <i>What do you see as other possible outcomes?</i> <i>Why did...changes occur?</i> <i>Can you explain what must have happened when...?</i> <i>How is... similar to...?</i> <i>What are some of the problems associated with..?</i> <i>Distinguish between..?</i>	<i>Design a questionnaire to gather your information.</i> <i>Write a commercial to sell a new product.</i> <i>Conduct an investigation to produce own information to support a view.</i> <i>Make a flow chart to show the critical stages.</i> <i>Construct a graph to illustrate information.</i> <i>Make a jigsaw puzzle.</i> <i>Make a family tree showing relations.</i> <i>Prepare a report</i>	<i>appraise</i> <i>differentiate</i> <i>experiment</i> <i>compare</i> <i>diagram</i> <i>inspect</i> <i>inventory</i> <i>relate</i> <i>examine</i>
Synthesis	<i>create</i> <i>invent</i> <i>compose</i> <i>predict</i> <i>plan</i> <i>construct</i> <i>design</i> <i>imagine</i> <i>improve</i> <i>propose</i> <i>devise</i> <i>formulate</i>	<i>Can you design a ... to a ...?</i> <i>Can you compose a song about...?</i> <i>Can you see a possible solution to...?</i> <i>If you had access to all resources, how would you deal with...?</i> <i>Why don't you devise your own way to...?</i> <i>What would happen if...?</i> <i>How many ways can you...?</i> <i>Can you create new and unusual uses for...?</i> <i>Can you develop a proposal which would...?</i>	<i>Invent a machine to do a specific job.</i> <i>Design a building to house your study.</i> <i>Create a new product and plan a marketing strategy.</i> <i>Write about your feelings in relation to..</i> <i>Write about a conversation that two objects might have.</i> <i>Write a TV show, play, or song about...</i> <i>Design a record, book or magazine cover for ...</i> <i>Make up a new language code and write material using it.</i> <i>Sell an idea.</i> <i>Devise a way to.</i> <i>Compose a rhythm or put new words to a known melody.</i>	<i>Discuss</i> <i>Generalise</i> <i>Relate</i> <i>Compare</i> <i>Contrast</i> <i>Abstracts</i>

<p>Evaluation</p>	<p>judge select choose decide justify debate verify argue recommend assess discuss rate grade determine</p>	<p>Is there a better solution to...? Judge the value of... Can you defend the position about...? Do you think... is a good or bad thing? How would you have handled...? What changes to..would you recommend? Do you believe..? Why/why not? How would you feel if...? How effective is...? What do you think about...?</p>	<p>Prepare a list of criteria you would use to judge a... show. Indicate priority and ratings you would give. Conduct a debate about an issue of special interest. Make a booklet about five rules you see as important. Convince others. Form a panel to discuss views on a particular topic. Write a letter to .. advising on changes needed to... Ask the child to write his own half-year report. Prepare a case to present your view about... List some common statements about... which people often make. Are they accurate?</p>	<p>judges disputes develops criteria</p>
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COVER STORY

Education for all

Children get increase opportunities

By FRANCIS TEKEI

CLEARCUT educational messages have been noticeable everywhere in the last few years.

School libraries have been decorated with national book week themes like "read beyond 2000" and others. Posters on literacy decorated walls of community halls and elementary classrooms, displaying the theme - "literacy opens life." On the noticeboards of education offices and institutions are sharp slogans such as "partnership in education" and others.

These are prove of the most dynamic and significant change in the history of PNG's education system - the education reform.

Shaped in 1992 through the launching of the education reform task force headed by the then secretary Jerry Tetaga, the reform has achieved a lot, but there is more to be done.

Education Secretary Peter Baki said last year: "We have made great progress this year, but many challenges remain to be faced. The progress which is most obvious so far, is providing more opportunities for (our) children. This has been dramatic."

He said the reform is aimed to provide relevant basic education for all children, and expand opportunities for further education and skills development

The most significant achievement has been the increase in educational opportunities in institutions whether formal or non-formal, and the number of students attending them.

By mid 1999, enrolment figures show that 830,000 students were enrolled in the national education system, an increase of more than 225,000 since 1995 when the reform was just being started. In elementary schools, there were a total of 130,000 children.

Mr Baki said: "In the last two years, at least 80,000 children have started school who would not have been able to go to school at all, if the reform had not started."

In upper primary (grades 6-8), there was a total of 70,000 students, more than half in primary schools, not high schools.

"This is 330,000 grade seven and eight students more than in 1995. Most of these extra young people would have left school after grade six if we had not started the education reform," Mr Baki said.



Education for all is a national march that will only be realised through the contribution of everyone concerned.

In the lower secondary level (grade 9 and 10), the reform provided more than 8000 extra places. The 1999 total was 42,000.

There were 4000 grade 11 students and 2900 grade 12s last year, compared to 1000 before the reform. In addition, there were 27 provincial secondary schools, offering grades 11 and 12, eight of which were started last year, as well as the five national high schools.

While these figures reflect the magnitude of what has resulted so far, these are a mere fraction of the actual progressive scenario.

To provide universal education for all PNG children remains the unchanged fundamental aim of the reform. It aims to provide access to education for all seven-year olds, rationalise staff deployment, provide lower and upper secondary education, increase access to lower and upper secondary levels, have children leave school at mature age, recognise the role of vocational and technical education, and provide linkages between vocational education and higher levels.

The reform affects the entire spectrum of education, including teacher training (the Port Moresby Inservice College has been providing diploma programs for primary school teachers), curriculum and materials development, materials supply, infrastructure, standards monitoring and institutional strengthening which include planning and management training.

Various sections in the education system have also been broken up to fit their respective structures, as is the case with the Teaching Services Commission.

Being the single largest workforce in the country, the commission is entrusted with the function of overseeing the work conditions and terms of teachers in all institutions throughout the country.

Chairman Toby Davies and commissioner Alan Jogioba revealed in an interview that their organisation had its visions in line with the reform, with target activities identified in line with the current status and the new direction envisioned.

The long-term vision: "To strive to have PNG Teaching Service vibrant, informed, self sufficient, responsible to evolving PNG needs and be autonomous in setting direction and maintaining control over teaching as a service."

They said: "People have generally accepted the reform. One visible area is that more children are able to go to school. That is one of the striking features of the reform. This shows the level of acceptance."

Among the many other developments, the reform has given birth to elementary schools, and technical and vocational schools have also been given a deserved attention - now known as technical vocational education.

■ continued page 28

Children get increase opportunities

■ *from page 6*

Non formal education is a vital component of the education reform. Special emphasis has been given to literacy both by successive governments and the department, who have noted that literacy development was an essential key to achieving the stated ideals of the reform.

In that direction, the slogan "literacy skills open life: 2000" has been adopted by the the Education department as its theme for this year which is in light of the fact that more than half of the people in PNG are illiterate.

The National Literacy and Awareness Secretariat has already devised plans of action for the literacy year. The handful of staff attached with the division are appreciative of the department's recognition of literacy as a vital part of the reform.

Secretariat director Willie Jonduo and his staff revealed that the most important events for the secretariat this year include literacy awareness program review, literacy policy,

network feasibility study team, and the national literacy week.

Currently under way is a literacy awareness program review being sponsored AusAID and NRI. The aim of the review is to take stock of the literacy situation in the country. A media campaign on the review was launched last month. It will be followed by workshops and a policy will be drawn up and given to the department for its use.

Secretariat staff Tiny Ray said the policy would set the roles of everyone, starting at the community level.

"This is a guideline for literacy at the community level. Currently, there is no policy," he said. Once the policy is approved, literacy will be part of the formal education system.

Another highlight of the reform is the new language policy. Unlike the old system where English was dominant, the language now in the elementary school is the children's vernacular. After elementary, learning

and teaching in lower primary school (grade three to five) will be conducted in a bilingual situation.

"In many ways the new language policy is one of the most significant changes of the reform. It will have a significant effect on the quality and relevance of children's learning. It makes every one of our languages a language of education, and will strengthen both our cultures and our languages as well as the education of our children," Secretary Baki said in an education message last year.

He said: "The remarkable progress we have made in the reform has only been possible through the commitment, vision and contribution of the many partners in education working together."

That is why the success of the education reform rests on the level of partnership in education not only during 2000 but also in the years ahead. Only then can we conclude that the reform has achieved universal education for all Papua New Guineans.

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A simple classification which some educators believe is equally as effective as Bloom's taxonomy is to use the W's referred to as **WHAT, WHEN, HOW, WHO, AND WHY.**

6.2: Activity 18

Using the previous newspaper article, write a what, when, how, who and why question. Swap your questions with another person and answer them.

Planning your questioning

Adapted from McBurney-Fry, G. (1998), *Improving Your Practicum*. Social Science Press.

There are a number of key concepts which can assist the teacher in the development of good questioning.

When teachers construct questions particular attention should be paid to the **phrasing** or language used. The question should be given in language easily understood by students and language they are capable of responding to.

It is good practice to **sequence** the order of questions. This sequence should move the students' thinking from the simple to the more complex.

Teachers usually **pause** for a few seconds after asking a question. This pause provides an opportunity for students to consider their response. A pause of one to two seconds is useful in simple questioning and longer pauses of three to six seconds are useful in more advanced forms of questioning.

Effective questioning should involve the greatest number of students as is possible. It is important that **all** students feel like they are part of the learning process.

It is important to **distribute** questions in an even manner. This can be done by the teacher directing questions to boys and girls in a regular pattern or by seating direction.

Redirecting a question often occurs after the selected student is unable to answer the question. This is not a time to single out or embarrass a student for not being able to answer the question.

Students who answer incorrectly should be encouraged to respond again. Saying "No" does not assist learning. The teacher could provide a hint or add information to help. For example, "Not quite right Helen, but good try".

When questioning, use the language that your students will understand, e.g., vernacular, or Tok Pisin. The important point is that the question is understood.



6.2: Activity 19

List the key concepts in point form as described above. Using those concepts, in a group of four, take turns to practice asking questions to each other. You can use the work you have completed using the newspaper article to help you plan your questions. The other members of the group can provide feedback on your questioning.

Summary

Whilst learning about questioning in this topic, you have looked at the reasons for questioning, classification of questions, planning and asking questions. You have practiced writing and asking questions, and observed others asking questions.

Sometimes teachers use poor questioning techniques. Try to avoid those listed below.

Poor questioning techniques

- **Repeating questions.** If the teacher has to constantly repeat the question, either the class is not paying attention or the question is too hard.
- **Repeating students' answers.** This is often done because the teacher wants the whole class to hear the answer, however this can result in the lesson moving slowly, students only listening when the teacher talks (not their fellow students) and students not gaining sufficient practice in speaking loudly enough for others to hear.
- **Asking long and rambling questions.** Sometimes teachers do not realise that they often answer their own questions before students have the opportunity to respond. Students can become frustrated or less involved in the lesson.
- **Changing pupils' responses.** Sometimes teachers change student responses so that they fit better with the answer the teacher wants.

Questioning skills are important for teachers because they ask so many during the day and can assist greatly in increasing their students' understanding. Use all opportunities to practice your questioning skills, particularly during school experience and block teaching.

Reinforcement

*Adapted from McBurney-Fry, G. (1998), **Improving Your Practicum**. Social Science Press. Madang Teachers College, Professional Development Strand (1999) **A Handbook on Teaching Skills for Year 1**.*

Reinforcement provides the opportunity to strengthen students' behaviour. Reinforcing students' actions, especially those that are positive, increases the likelihood that the action or actions will be repeated.

Reinforcement allows teachers to:

- increase students' learning
- encourage pupils' participation
- increase initiative
- develop and maintain interest
- gain greater attention
- increase independent behaviour

Teachers can reinforce student effort and achievement in many ways. The most common way is to **verbally** praise the students' work or behaviour. This can be done with a variety of teacher expressions, ranging from formal – 'well done, excellent work, good thinking' - to the less formal – 'fantastic, great idea, etc.

Gestural reinforcement, a non-verbal form of reinforcement, is frequently used in conjunction with verbal reinforcement. This type of reinforcement includes facial or body gestures such as nodding, smiling, raising and lighting eyes, and arm and hand pointing or clapping. Gestural reinforcement is most pronounced in dealing with younger students and less pronounced in reinforcing older students. Attention to cultural differences and expectations is very important in using gestural reinforcement. What is normal and acceptable practice in one culture may not be so in another culture. This includes the touching of the top of the head in many Asian cultures, to any type of touch with Moslem boys. It is wise to learn about the school's cultural habits first before practising any form of gestural reinforcement, and exercise caution. Some students may not like being touched.

Proximity reinforcement occurs when the teacher stands alongside, walks towards, sits near on a desk, and is in close proximity to the student. This can assist in keeping the student's attention and preventing inappropriate behaviour.

Activity reinforcement allows the teacher an opportunity to reward students with an activity they enjoy e.g., going out first for lunch, having extra free time, playing a game, going home early, working in the library, reading their favourite books etc.

Token reinforcement encourages students through the use of rewards or awards such as food, lollies, stamps, stars, behaviour cards, pens, books, etc. It is often the recognition given rather than the actual token that is important in building the student's self esteem. Keep in mind that when using tokens, the age of the children should be taken into consideration. What may be rewarding to an 8 year old may not be so for a 15 year old.

Reinforcement can be directed in several ways. Most commonly, teachers praise individuals or whole groups such as class, grade or year. In praising individuals, greater recognition is afforded if teachers use **personalised reinforcement**. This term refers to the use or inclusion of the student's name as in "Great work, Annie".

Less effective in practice, especially with very young students, is the use of **delayed reinforcement**. Teachers using delayed reinforcement offer praise after the event, such as in a lesson on the following day; or in secondary school, perhaps in the next lesson several days later. Young students respond best to immediate reinforcement, which is more easily associated with the behaviour being rewarded.

Behaviour includes everything that the students do. Teachers should decide what behaviours should be reinforced and would like repeated all the time. A choice between positive and poor behaviour will also mean a choice between reinforcement or disciplinary action to be applied. Teachers should encourage positive behaviour and must reinforce meaningfully to help facilitate learning.

For further information on reinforcement, see Module 2.2, Educational Psychology.

 **6.2: Activity 20**

After you have read the information on reinforcement, present the information in table format. List the different types of reinforcement and next to each, think of an example to illustrate each type.

 **6.2: Activity 21**

Below are some situational examples. Determine the best type of reinforcement that you think would be suitable for each. Write your answers in your lecture book. When completed, show it to your partner and discuss the answers together.

- 1. Adella came early one morning and put some nice flowers in the teacher's vase.*
 - 2. John scored nine answers right out of 10 in the Maths quiz.*
 - 3. Noreen never forgets to put her hand up when trying to answer a question.*
 - 4. Peter, a group leader, always helps his members work better and faster in group tasks.*
 - 5. Sienna always stays late after school to water the plants without being told.*
 - 6. Nagon writes very neatly and clearly in his exercise books and makes them attractive with coloured pens.*
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Promoting Pupil–Teacher Interaction

Adapted from Madang Teachers College, Professional Development Strand (1999) A Handbook on Teaching Skills for Year 1.

Teaching and learning is a two-way process. In the classroom, teacher and students constantly interact from the time they begin the day to the time they finish.

A healthy, positive teacher-pupil interaction is basic to learning. Every teacher needs to understand that teaching is a “people job” and therefore, good relationships must be developed.

Students interact and learn more effectively when the teacher is seen to possess characteristics that make them feel happy and comfortable.

There are many ways we can promote a good teacher-pupil interaction, such as:

- Be natural, warm, pleasant and approachable
- Be tolerant with individual differences
- Share yourself evenly with the students
- Learn the names of your students quickly
- Come to know your students in as many ways as possible
- Respect your students
- Be consistent and fair in dealing with misbehaviour
- Reinforce good behaviours meaningfully
- Develop a genuine concern for the welfare of your pupils
- Ensure that all lessons are carefully planned and that a variety of interesting activities are provided
- Ensure that there is enough work for each student to do to prevent misbehaviour
- Check to see that each student knows exactly what to do for each task given
- Achieve a working harmony between yourself and your students and between the students themselves
- Establish systematic procedures to develop a sense of value for time
- Recognise students’ needs

 **6.2: Activity 22**

Discuss these points with your group. Select four points and write down how you could achieve some of these interactions with your class OR group the above into three domains; knowledge, skills and attitudes. What role do these areas play in the development of pupil-teacher interaction? Is one more important than another?

Establishing a positive environment

*Adapted from McBurney-Fry, G. (1998), **Improving Your Practicum**. Social Science Press.*

The establishment of a positive learning environment is very important in fostering harmony and confidence in the classroom. Positive learning environments involve teacher's attention to several aspects, including personal worth, interaction, communication and classroom setting.

It is important that strong positive ties are established between student and teacher and between student and student. Students must feel they are personally valued by other members of their class. Teachers can convey much about the worth of students by their manner and practice. This can be seen in the way students and teachers address each other, and the way in which students interact and communicate.

The attractive organization of the classroom sends a positive message about the learning environment to the students. An orderly classroom helps to promote purpose in the learning environment and assists in the efficient running of the classroom. Teachers and students who are always looking for things distract the learning process and waste valuable time.

Allocation of adequate time to activities helps promote positive learning experiences. This includes allocation of time to lesson timing, administrative tasks and personal time. Students who are continually rushed to complete tasks fail to appreciate either the task or the content. Students who are allowed too long sometimes think the teacher is not interested in their progress and do not do their best. Just the right amount of time to complete a task is obviously the best choice. Being able to change your plan is also important, if you see your time allocation being unsuitable.

Assessment of tasks should assist in developing a positive learning environment. Students should see the value in assessment tasks and believe the teacher's approach to be consistent and fair. This should be seen in the daily marking of the students' work and in formal assessment procedures such as tests.

Make sure you create a positive learning environment for all students in your class by recognising gender differences. Girls and boys should have equal opportunities to contribute and participate.



6.2: Activity 23

Summarise the main points of the reading above. Show your summary in a picture or diagram form to present to your group. Reflect on how you will develop positive interactions with your students.

Evaluating

*Adapted from Barry K., and King, L. (2000) **Beginning Teaching and Beyond** Social Science Press. Madang Teachers College, Professional Development Strand (1999) **Teaching Skills for Year 1.***

Evaluation is making a judgement or putting value on something. Some of the questions we should ask after we have taught are:

- How well did the students learn?
- What knowledge, skills and attitudes did they learn and not learn?
- Why are the students not learning certain things?
- How did I perform in this lesson?

There are many more questions we can ask, but the main point here is that when we begin to think and deal with questions like these, then we are beginning to get involved in evaluation.

What are the purposes of assessment and evaluation?

For students, assessment and evaluation can serve such purposes as:

- Enhancing learning, especially when tasks are set that encourage the use of learning strategies, understanding, or real life applications
- Providing feedback about progress and thereby helping guide future learning
- Helping stimulate motivation, especially through confirming learning and goal setting
- Building confidence and self esteem
- Developing skills in evaluation through self and peer assessment

For teachers, assessment and evaluation can serve such purposes as:

- Providing information about the whole class and individual students. In turn, this information can be used in a variety of ways to enhance and report on the learning program
- Helping diagnose strengths and weaknesses of students to ascertain a starting (or follow-up) point for planning and teaching
- Helping compare the performance of class members. This may assist in grouping, determining individual programs and reporting to parents and school administrators
- Identifying strengths and shortcomings in teaching
- Enhancing curriculum planning and programming
- Reporting to parents and school administrators information about a student's progress and the learning program

For parents, assessment and evaluation serves such purposes as:

- Providing information about students' development, learning and efforts at school
- Providing guidelines for assisting at home with learning

Key concepts in evaluation

The evaluation process consists usually of four sub-parts as shown in this diagrammatic chain:

measurement – assessment – evaluation – decision making

Measurement involves using rules to assign a number(s), such as a score, rating or ranking, to an individual or group for a specified behaviour or performance. In other words, measurement takes place whenever a score, rating or ranking is given to a student, e.g., Moale scored seven correct answers out of ten items.

Assessment relates to collecting, synthesising and interpreting data about the knowledge, skills and attitudes of a person or group, in order to facilitate decision-making.

Evaluation is the major step in the overall process, but it must be preceded by measurement and/or assessment. Neither the measurement nor assessment processes involve judgements about the worth of a score, rating or ranking. Moale's score of seven out of ten could be judged as being good. Evaluation is when a value is placed on the worth of a score.

Decision-making refers to the steps the teacher takes after having made final judgements. Usually these decisions tell us what the teacher is going to do as a consequence of measuring, assessing and evaluating the student's learning. Moale's score may tell the teacher that just a few examples need to be worked through again, and specific practice may be given in a couple of areas.

This module briefly discusses evaluation in relation to lesson planning, presentation and outcomes of the teaching session. For a more detailed discussion of assessment and evaluation techniques in the classroom, see Module 3.2, *Assessment and Evaluation* and the elective unit *Assessment and Evaluation*.

Evaluating your teaching

Evaluating your teaching is the process of making judgements about the quality and value of your teaching. Gathering data to make that evaluation may be formal (by way of a student questionnaire) or informal (talking to students and noting feedback). It should be facilitated by your own reflection on the processes that took place.

Teacher's Self-Evaluation

Teaching skills can be classified under the following headings or categories:

- Motivational skills
- Presentation and communication skills
- Questioning skills
- Skills for small group and individual instruction
- Developing pupil thinking
- Skills in evaluating pupil progress
- Classroom management and discipline

Look at yourself objectively and determine how you rate in the following questionnaire.

Motivational skills:

- Do I reinforce pupil behaviour?
- Do I employ variety in my teaching?
- Do I use effective introductory procedures?
- Do I encourage pupil involvement and participation?
- Do I accept and support pupils' feelings and contributions?
- Do I locate and use pupils' interests and concerns?
- Do I display enthusiasm and warmth?
- Do I recognise and meet children's needs?

Presentation and communications skills :

- Do I explain /dramatise / read effectively?
- Do I use audiovisual aids?
- Do I use successful concluding procedures (closure)?
- Do I employ instructional flexibility?
- Do I clarify pupil ideas?
- Do I use silence effectively?
- Do I use examples?
- Do I facilitate memorisation?
- Do I use pupils' ideas?
- Do I use storytelling effectively?
- Do I encourage and reinforce pupils' work and attempts?
- Do I develop pupils' oral language?
- Do I use planned repetition?

Questioning skills:

- Do I use effective basic questioning techniques?
- Do I build on pupils' answers?
- Do I use probing questions?
- Do I encourage pupils to ask questions?
- Do I guide pupils in class discussion by skilled questioning?
- How much interaction was there between pupil and pupil?
- Were most of my questions fact questions or thought questions?
- Do I distribute questions effectively?
- Do I employ variety in questioning?
- Do I give pupils time to answer questions?

Skills for small group and individual instruction:

- Do I organise for small group work?
- Do I supervise and guide the group?
- Do I provide for individual differences within the group? Is there scope for individualising instruction?
- Do I encourage co-operative activity in the group?
- Do I allow for independent learning?

Developing pupil thinking:

- Do my lessons foster enquiry learning?
- Do my lessons guide children in making discoveries?
- Do my lessons stimulate creativity?
- Do I use role-playing, games and problem solving methods as part of my lessons?
- Do my lessons encourage children to evaluate and make judgments?
- Do my lessons develop critical thinking?

Evaluate skills:

- Do I continuously evaluate pupil progress and diagnose difficulties?
- Do I provide remedial exercises?
- Do I encourage self-evaluation?

Classroom management and discipline:

- Do I recognise attending and non-attending behaviour?
- Do I aim for maximum class involvement?
- Do I establish classroom routines?
- Do I know how to handle disruptive pupils?
- Do I establish and maintain good tone in my room?
- Do I reinforce good behaviour?
- Do I praise children for sharing, being unselfish, co-operative?
- Do I allow competitive practices that permit some pupils to gain at others' expense?

(Adapted from "Micro-teaching" by Turney, Clift, Dunkin and Traill)

**6.2: Activity 24**

Use this self-evaluation checklist to review a recent teaching experience you have had during school experience or during a seminar presentation during lectures. Choose one area to look at in detail and write a self-evaluation.

Variability in Teaching

Variability in teaching is concerned with attention, motivation and learning. Three variations teachers can introduce and use in their teaching are:

1. Variations in the teacher's manner or personal teaching style.
2. Variations in the media and materials of instruction.
3. Variations in the pattern and levels of interaction between the teacher and pupils variation in the teachers' manner of style.

Voice variations

This includes changes in the tone, pitch volume and speed of speech. If carefully used it can help to attract attention, convey meaning, and promote communication.

These may be used to dramatize an event, emphasize points, relate quietly to individual pupils, speak sharply to an inattentive child, and so on.

Focusing

To focus attention to significant or main points the teacher may use "verbal markers of importance", such as "watch closely, now this is important" and so on. Such verbal focusing is often accompanied by gestural focusing where the teacher points to an object, chart or chalkboard for emphasis.

Pausing

Insertion of brief intervals of silence in teacher talk and teaching activity is an attention demanding device. It captures attention by changing the stimulus from one of noise to quiet from one of activity to inactivity, or marking the end of a lesson. In questioning, it is "wait time" to allow pupils to think after asking a question on higher thinking levels.

Eye contact

While teaching, a teacher should smoothly scan the class to establish a positive relationship and avoid impersonality. Teacher can use eyes to help convey information, attract an inattentive child's attention and gain clues on pupil interest and understanding.

Gestures

Variation in facial expression, head and body movements are an important aspect of communication. They help to convey the meaning of oral messages.

Movements

The teacher's movement in the teaching space helps sustain attention and personalise teaching. Movement during the lesson will be determined by the type of presentation and the lesson content. Movement can be to the front and back, left and right sides of the classroom and among, behind and beside the pupils, and sitting or standing.

The important thing to remember is that all movements must be purposefully employed, not over done. The 'wooden' teacher is dull and uninteresting whilst the over lively one is distracting.

Variation in the media and materials of instruction

Visual variations

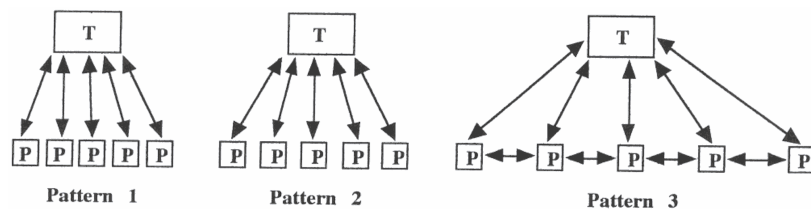
These include objects, chalkboard work, pictures and other things that the pupils can see to obtain information.

Aural variations

These include teacher's voice, pupil talk, recorded sounds and voice, music, video and any recorded learning material.

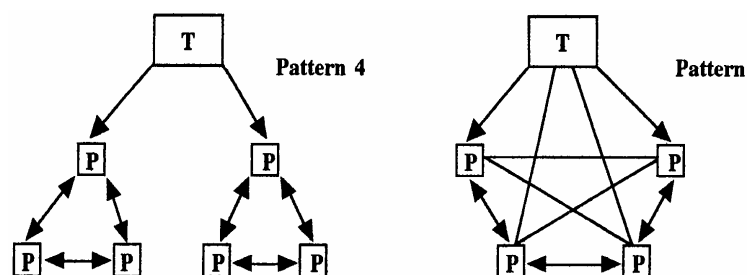
Interaction variation - changes in teacher-pupil interchange and pupil activities

These variations in patterns of interaction may be determined by the type of content being presented and the type of lesson pattern used. Therefore, the patterns used may range from situations that will involve teacher talk, to situations where pupils are working independently or in groups. All patterns of interaction are effective when teachers use them for specific purpose. Other patterns may be used besides the suggested patterns.



"Patterns of Classroom Interaction" by M.S. Wagner.

In Patterns 1, 2 and 3, a teacher is the centre of attention because some content requires more input from the teacher. However, this does not mean that a teacher dominates the lesson with talking. There should be some interaction between a teacher and the pupils and pupils to pupils.



In patterns 4 and 5 the pupils are given more opportunities to interact with each other and also to work on a given task at their own pace. The teacher's role changes from that of instructor to facilitator.

Pupil activity

The learning activities in which pupils may be engaged include:

- pupils contributing in small buzz-groups
- individual or in small group work, on projects or tasks of various kinds
- written work
- reading silently or aloud
- watching video show
- working on science experiment
- role play



6.2: Activity 25

1. *Why are motivation and attention the main concerns of variability in teaching?*
 2. *What is the relationship between motivation, attention and learning?*
-

Summing Up

Effective teachers use a variety of skills and techniques in the classroom. Good teachers make the job seem easy; the lesson flows well, the students work productively and the outcome is positive.

This module has emphasised some of the particular skills that teachers can use to enhance the quality of their teaching and the achievement of learning outcomes and objectives. Careful planning, clear communication, clear explanations, and appropriate questioning all contribute to effective teaching and most importantly, effective learning.

Glossary and Key Terms

motivation	Motivation is the reason for doing something. It is an incentive to act in a certain way.
management	The manner in which individual teachers organise their approach to learning and the administration of the classroom to promote student learning.
sequencing instruction	Sequencing instruction connects the line of events, ideas or activities. It requires organising the content and learning experiences into logical, connected series of activities or steps.
pacing	Pacing is concerned with giving enough time to each section of the lesson.
conclusion	The conclusion refers to those actions or statements that are used by teachers to conclude a lesson presentation. The main points of the lesson are brought together and summarised.
communication	The sharing of messages or attitudes that produce a degree of understanding between a sender and a receiver.
non verbal communication	The use of particular gestures, facial expressions and physical movements which assist in sending information between sender and receiver.
taxonomy	A means of classification.
reinforcement	To strengthen or support a certain behaviour by providing a reward.
evaluation	Evaluation is making a judgement or putting a value on something.
variability	Variability is concerned with changes in the teacher's presentation skills to improve attention, motivation and learning.