

National Technical and Vocational Qualification Framework

NTVQF

Competency Based Learning Materials (CBLMs)

**Design and Modify CBT Learning Materials and
Resources**

**National Certificate in CBT&A Methodology
Trainers & Assessors, Level-4**



**Bangladesh Technical Education Board
Agargaon, Sher-E-Bangla Nagar
Dhaka-1207**

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This Competency Based Learning Materials on “Design and Modify CBT Learning Materials and resources” under the CBT&A Methodology for Trainers & Assessors, Level-4 qualification is developed based on the national competency standard approved by Bangladesh Technical Education Board (BTEB).

This document is to be used as a key reference point by the competency-based learning materials developers, teachers/trainers/assessors as a base on which to build instructional activities.

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Preface

Education and training for productive employment is vital for economic and social development in Bangladesh. Technical and Vocational Education and Training (TVET) is a tool for productivity enhancement and poverty reduction. TVET sector ensures quality, relevance and access of skills training which meets industry demand and fulfill the requirements of individual for opting gainful and productive employment.

Competency-based learning materials on “Design and Modify CBT Learning Materials and resources” provides overall course guidelines in relation to teaching and learning and act as the key instrument in supporting delivery of standardised formal, non-formal and informal training. It is expected that competency-based learning materials (CBLMs) will serve the purpose of training delivery of different courses maintaining quality as specified in the approved national competency standard for CBT&A Methodology for Trainers & Assessors, Level-4. As it is agreed that any reform in TVET system in Bangladesh should be in line with international trends so as to make graduates from the qualification nationally and internationally competent.

It will be worth noting that the initiatives for development of National Certificate in CBT&A Methodology, Level-4 & Level-5 through review and updating of existing competency standards of trainers & assessors, development of new competency standard for National Certificate for CBT&A Managers and implementers, Level-6 and Competency Based Curriculum development for the above mentioned courses by the Skills 21 – Empowering Citizens for Inclusive and Sustainable Growth Project, ILO. This document is developed by the Standards and Curriculum Development Committee of BTEB under the guidance of International Expert (TVET and Skills Development Specialist) and the National consultant, Skills 21 – Empowering Citizens for Inclusive and Sustainable Growth Project, ILO country Office for Bangladesh.

We appreciate Skills 21 – Empowering Citizens for Inclusive and Sustainable Growth Project, ILO, funded by European Union (EU) for developing competency-based learning materials on “Design and Modify CBT Learning Materials and resources” for CBT&A Methodology of Trainers & Assessors, Level-4 qualification under National Technical and Vocational Qualification Framework (NTVQF).

Chairman
Bangladesh Technical Education Board

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Acronyms

BMET	Bureau of Manpower Employment and Training
BTEB	Bangladesh Technical Education Board
CAD	Course Accreditation Document
CBC	Competency Based Curriculum
CBLMs	Competency Based Learning Materials
CBT	Competency Based Training
CBT&A	Competency Based Training and Assessment
CS	Competency Standard
DTE	Directorate of Technical Education
EU	European Union
ILO	International Labour Organization
LCD	Liquid Cristal Display
MOE	Ministry of Education
MOEWOE	Ministry of Expatriate Welfare and Overseas Employment
MOLE	Ministry of Labour and Employment
NEP	National Education Policy
NGOs	Non-Government Organisations
NSDA	National Skills Development Authority
NSDC	National Skills Development Council
NSDP	National Skills Development Policy
NTVQF	National Technical and Vocational Qualification Framework
OSH	Occupational Safety and Health
PCs	Personal Computers
QAMS	Quality Assurance Manuals
RPL	Recognition of Prior Learning
SCDC	Standards and Curriculum Development Committee
TSC	Technical School and College
TTC	Technical Training Centre
TTTC	Technical Teachers Training College
TVET	Technical Vocational Education and Training
VET	Vocational Training Institute
VTTI	Vocational Teachers Training Institute

Overview of The Module

Design and Modify CBT Learning Martials and Resources

This module comprises five elements (1 to 5), and five (5) learning outcomes derived from the unit of competency TVTDES401A1: Design and Modify CBT Learning Martials and resources

Upon completion of this module, the trainee must be able to:

1. Analyze existing learning materials and relevant resources
2. Adapt existing resources
3. Develop new resources
4. Review learning materials
5. Evaluate the design and development process.

After completion of the training, the trainees will be required to demonstrate their competency through the following performance criteria:

- 1.1 Existing learning materials and resources are collected and accessed.
- 1.2 **Learning outcomes** and **assessment criteria** of the existing learning materials are reviewed based on competency standard according to learning program requirements and specific needs of individual learners.
- 1.3 Existing learning materials and resources are, evaluated and assessed as per reviewed outcome for relevance and quality.
- 2.1 Existing learning materials and resources are contextualized and modified to suit the learners need.
- 2.2 Draft learning materials and resources are reviewed with key stakeholders.
- 2.3 Draft learning materials and resources are adjusted to reflect the review outcomes.
- 3.1 Format for designing Learning materials are collected and interpreted.
- 3.2 Relevant learning materials and resources are developed based on competency standard and set format.
- 3.3 Draft learning materials and resources are finalized and documented.

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- 4.1 Content of the developed materials is checked against content specifications.
- 4.2 Text, format and visual design are checked for clarity and focus.
- 4.3 Relevant personnel are identified and support is sought for the review and validation.
- 4.4 An external review is conducted using appropriate ***methods, and feedback*** is incorporated.
- 4.5 Final draft is reviewed against the brief and other relevant criteria prior to delivery to the client.

- 5.1 The design and development process is reviewed against appropriate ***evaluation criteria***.
- 5.2 Identified improvements are documented for future intervention.

CONTENTS

This learning package includes the following:

- Analyze existing learning materials and relevant resources
- Adapt existing resources
- Develop new resources
- Review learning materials
- Evaluate the design and development process.

PRE-REQUISITE: N/A

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How to Use This Competency Based Learning Materials (CBLMs)

The module, “Design and Modify CBT Learning Materials and resources” contains training materials and activities for you to complete. These activities may be completed as part of structured classroom activities or you may be required to work at your own pace. These activities will ask you to complete associated learning and practice activities in order to gain knowledge and skills you need to achieve the learning outcomes.

Review the **Learning Activity** page to understand the sequence of learning activities you will undergo. This page will serve as your road map towards the achievement of competence.

Read the **Information Sheets**. This will give you an understanding of the jobs or tasks you are going to learn how to do. Once you have finished reading the **Information Sheets** complete the questions in the **Self-Check**.

Self-Checks are found after each **Information Sheet**. **Self-Checks** are designed to help you know how you are progressing. If you are unable to answer the questions in the **Self-Check** you will need to re-read the relevant **Information Sheet**. Once you have completed all the questions check your answers by reading the relevant **Answer Keys** found at the end of this module.

Next move on to the **Job Sheets**. **Job Sheets** provide detailed information about *how to do the job* you are being trained in. Some **Job Sheets** will also have a series of **Task Sheets**. These sheets have been designed to introduce you to the job step by step. This is where you will apply the new knowledge you gained by reading the Information Sheets. This is your opportunity to practise the job. You may need to practise the job or activity several times before you become competent.

Specification **sheets**, specifying the details of the job to be performed will be provided where appropriate.

A review of competency is provided on the last page to help remind if all the required assessment criteria have been met. This record is for your own information and guidance and is not an official record of competency

When working through this Module always be aware of your safety and the safety of others in the training room. Should you require assistance or clarification please consult your trainer or facilitator.

When you have satisfactorily completed all the Jobs and/or Tasks outlined in this module, an assessment event will be scheduled to assess if you have achieved competency in the specified learning outcomes. You will then be ready to move onto the next Unit of Competency or Module

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MODULE CONTENT

UNIT OF COMPETENCY: Design and Modify CBT Learning Martials and resources

MODULE TITLE: Designing and Modifying CBT Learning Martials and resources

Module Descriptor: This module discusses the aspects that must be given attention when designing and modifying CBT learning martials and resources. It shows the knowledge and skills requirements for analysing existing learning materials and relevant resources, adapting existing resources, developing new resources, reviewing learning materials and evaluating the design & development process.

NOMINAL DURATION: 40 Hours

LEARNING OUTCOMES:

Upon completion of this module, the trainee must be able to:

1. Analyze existing learning materials and relevant resources
2. Adapt existing resources
3. Develop new resources
4. Review learning materials
5. Evaluate the design and development process.

ASSESSMENT CRITERIA:

1. Existing learning materials and resources are collected and accessed.
2. *Existing Learning Martial* are identified which full coverage and consistent performance of the relevant materials and resources.
3. *Learning outcomes* and *assessment criteria* of the existing learning materials needs of individual learners.
4. Existing learning materials and resources are, evaluated and assessed.
5. Existing learning materials and resources are contextualized and modified to suit the learners need.
6. Designing learning materials are collected and interpreted.
7. Relevant learning materials and resources are developed based on competency standard.
8. Learning materials and resources are finalized.
9. Content of the developed materials is checked against content specifications.
10. Appropriate *methods, and feedback* is incorporated.
11. Identified improvements are documented for future intervention.

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LEARNING OUTCOME 1: ANALYSE EXISTING LEARNING MATERIALS AND RELEVANT RESOURCES

ASSESSMENT CRITERIA

- 1.1 Existing learning materials and resources are collected and accessed.
- 1.2 Learning outcomes and assessment criteria of the existing learning materials needs of individual learners.
- 1.3 Existing Learning Martial are identified which full coverage and consistent performance of the relevant materials and resources.

CONTENTS:

- Learning Materials and Resource
- Adult learning
- Learning environment

CONDITIONS:

Trainees must be provided with the following:

- Handouts or reference materials/books on the above stated contents
- PCs/printers or laptops with internet access
- LCD/Digital Projector and Screen
- Microphones
- Bond paper
- Ball pens/pencils and other office supplies and materials
- Communication resources
- Workplace or simulated environment

METHODOLOGIES:

- Lecture/discussion
- Demonstration/application
- Presentation

ASSESSMENT METHODS:

- Written test
- Demonstration
- Oral Questioning
- Observation with checklist
- Portfolio.

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Learning Experiences 7.1-1

Learning Outcome 1

ESTABLISH EVIDENCE REQUIREMENTS

Learning Activities	Recourses/Special Instructions
Analyze existing learning materials and relevant resources	Read Information sheet 1.1. Analyze existing learning materials and relevant resources Answer Self-check 1.1, refer to answer key 1.1 to check if you have answered the questions correctly.
Adapt existing resources	Read the Information Sheet 1.2 Adapt existing resources Answer Self-check 1.2, refer to the answer key to check your answer.
Develop new resources	Read Information sheet 1.3 Develop new resources Answer Self-check 1.3 Check your answer with Answer key 1.3
Review learning materials	Read the information sheet 1.4 Review learning materials Answer Self-check 1.4 Check your answer with Answer key 1.4 Perform Task Sheet 1.4, use the performance criteria to check if you made the correct output
Evaluate the design and development process.	Read the information sheet 1.5 Evaluate the design and development process Answer Self-check 1.5 Check your answer with Answer key 1.5 Perform Task Sheet 1.5, use the performance criteria to check if you made the correct output

Information Sheet 7.1-1

Learning Materials and Resource

Learning Objective:

After reading this Information Sheet, you will be able to analyze existing learning materials and relevant resources

Understanding Analyze existing learning materials and relevant resources is necessary for understand and Interpret of resources. It will give ideas for Learning materials.

Competency Standards

Industry competency standards, often referred to as ‘competency standards’ are industry-determined specifications of performance, which set out the skills, knowledge and attitudes required to operate effectively in employment. Competency standards are made up of units of competency, which are themselves made up of elements of competency, together with performance criteria, a range of variables, and an evidence guide.

Industry competency standards documents specify the competencies required for work. They identify the key competencies that a worker needs to competently work in industry in a particular occupation. Thus, someone who is competent has the knowledge and skill associated with that competency and can apply their knowledge and skill in the workplace.

An industry competency standard includes:

skills, knowledge and attitude requirements for the level of work

quality indicators

national qualifications that a person can receive who has been assessed as competent against the national standards

learning strategies that provide guidance about the organisation of training, including implementation guidelines and training/learning materials

assessment guidelines

assessment methods and materials

Curriculum Documents

A curriculum is a documented representation of a set of competencies. Under the National Technical and Vocational Qualification Framework (NTVQF), these competencies are usually written as Units of Competency (UoC) in the competency standards document. These standards are endorsed by the relevant Industry Skills Council (ISC).

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As a beginning teacher/trainer you may not have to develop curriculum. You will be provided with a document, sometimes referred to as a syllabus for any modules or unit of competency that you are teaching. A curriculum document can relate to a whole program of study (referred to in institutions as a course), or it can relate to an element of that program (referred to in institutions as a subject or a module).

A curriculum document within a competency based training and assessment system provides the following information:

The name and number of the module and/unit of competency

Nominal delivery hours

A general description of the purpose of the module and/or unit of competency

Any prerequisite knowledge and skills

Relationship to the industry competency standards (the industry competency standards)

A summary of the content

A summary of the assessment

A detailed description of the learning outcomes that learners are expected to achieve, including each of the assessment criteria (these are the things that you can assess)

A description of how the module and /or unit of competency might be delivered.

Learning Materials

What is learning materials?

Learning materials is a generic term used to describe the resources Trainer and trainees use to deliver instruction. Ideally, the teaching materials will be tailored to the content in which they're being used, to the students in whose class they are being used, and the trainees.

Earlier it was hard to see the interactive classroom, teaching –learning materials and the teaching-learning environment that's why teaching became very monotonous and students had to mostly rely on the process of mugging up. The classroom teaching was dominated by the Lecture Method of teacher and there were some essential aids like chalk, duster, blackboard in the classroom. Learning materials were hardly used in the classroom. The Learning Materials are being designed to disable the monotonous learning methods. These Learning Materials made a shift from Response Strengthening to Knowledge Acquisition for construction of Knowledge. In this context, a trainer provides an environment where any learner can construct his knowledge by interacting with his physical and social environment.

The importance of learning Materials is to improve students' knowledge, abilities, and skills, to monitor their assimilation of information, and to contribute to their overall development and upbringing.

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A trainer should always think about his/her learners before providing Learning Materials. A trainer should identify the need of developing new teaching and training materials. Trainer can classify their materials according to the need and requirement of learners. A lesson plan can be one of the effective materials.

What is Learning Resource?

Learning resources are texts, videos, software, and other materials that teachers use to assist students to meet the expectations for learning defined by provincial or local curricula. Before a learning resource is used in a classroom, it must be evaluated and approved at either the provincial or local level. Evaluation criteria may include curriculum fit, social considerations, and age or developmental appropriateness. Chalk, board, duster, charts, ad-aids, learning software, library and instructional material are the examples of learning resources. A resource center is a facility within a school, staffed by a specialist, containing several information sources.

learning resources are added tools that helps teachers teach and students learn.

Examples -

Textbooks (print and digital),
Workbooks,
Worksheets,
Manipulative (blocks, beads, etc.),
Educator workshops,
Non-fiction books,
Posters,
Power point , etc.

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Why use learning materials?

Learning materials are an aid to the learning process. They should not be for the benefit of the instructor or something that must be used all the time. They must facilitate the students' learning. They should:

Arouse and maintain interest.

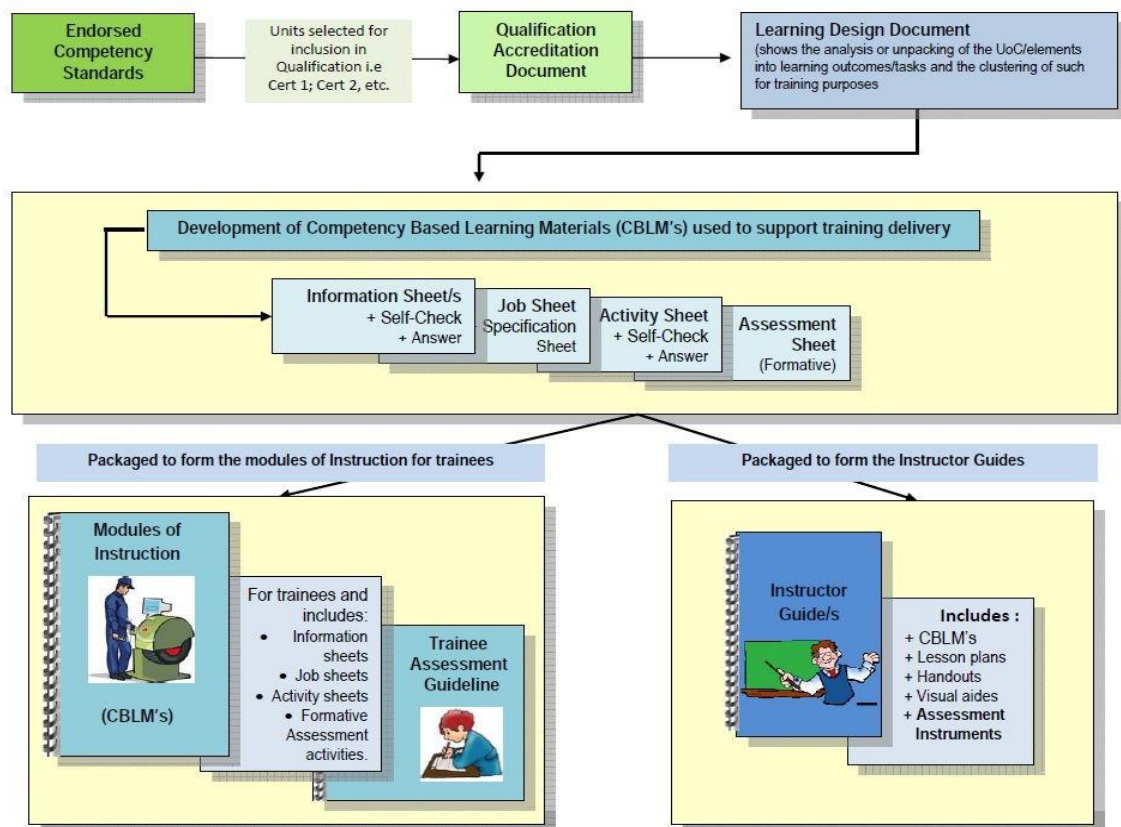
Simplify instruction.

Aid retention.

Stimulate active thinking.

Accelerate learning as more senses are involved.

Some Linkages between Curriculum and Industry Competency Standard Terms



CBT Learning Design Process

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What is the relationship between learning outcomes and elements?

A learning outcome: is a curriculum term states what a learner should be able to do towards achieving the purpose of the module/unit of competency relates to standards of competency identified by industry is written as an action statement from the learner's point of view.

An element of competency: is a industry competency standards term is the basic building block of a unit of competence describes the tasks that make up the broader function or job.

Each element of competence has a number of performance criteria which the learner can be evaluated against to determine whether or not they are competent.

Sometimes it is possible to equate a industry competency standards element with a curriculum learning outcome. At other times, a single element of competency might equate to 3 or 4 learning outcomes.

What involvement in developing curriculum documents or industry competency standards do you think you will have?

As you develop your skills as a TVET training and learning program designer, you may be able to contribute to the development of industry competency standard or curriculum.

What is the relationship between assessment criteria and performance criteria?

Essentially assessment and performance criteria are the same thing expressed in different words. 'Performance criteria' is more of a competency based training and assessment terminology and comes from the industry competency standards.

Assessment/performance criteria specify the performance that must be demonstrated by the learner in order for the learning outcome to be achieved.

- Validating Training Requirements
- The learner training requirements can be validated with the following persons/officers.
- Experts in the trainees trade areas.
- Supervisors/ or trainees employers.
- Training providers, employers and human resources departments.
- Trainers, Teachers and Assessors.
- Participant Trainee/Learner who is advanced in skill.
- Government regulatory bodies.
- Consultative Committees.
- BTEB registered Assessors/Assessment Centers.
- Learning outcomes and assessment criteria

Learning outcomes and assessment criteria are an essential part of curriculum design and need to be written in the planning stages. Well written outcomes and criteria enable higher level skills and a learner-led curriculum to be developed.

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Learning outcomes

define what students are expected to learn and what they need to do to pass.

provide clarity for an external audience (other colleagues, examiners, parents, employers etc.) of the standards required of learners

enable consistency of standards when, for example, several different tutors/markers are involved

may, by specifying originality of thought, application or process, mitigate against plagiarism.

Assessment criteria are based on the intended learning outcomes for the work being assessed and make explicit the knowledge, understanding and skills markers expect a student to display in the assessment task and which are taken into account in marking the work.

For learning outcomes and assessment criteria to be beneficial to students they need to be clearly aligned with teaching activities. They need to be used by learners within the teaching programme so that students gain familiarity with the language and application. Using criteria actively helps students learn to assess themselves and their peers, promoting autonomous learners.

There is no hard and fast rule governing the number and type of learning outcomes, it is suggested that between 5 and 8 per module (irrespective of credit weighting) is appropriate, with subsets of outcomes for individual learning sessions. Outcomes should, over a whole programme, define the knowledge, applications and skills students are required to learn. Module learning outcomes should flow out of the programme learning outcomes and clear alignment be identifiable.

Outcomes are written to represent the threshold standard expected to pass. Students who do not attain the threshold defined in the learning outcomes by definition cannot pass the module.

Learning outcomes are the focus of the curriculum design. Teaching activities should flow from them and allow students to engage with the knowledge and/or practice the applications and skills designated within them. Learning outcomes may be assessed by individual assignments or in a larger task, such as a project, which encompasses several. Whether individually or grouped, every learning outcome must be assessed.

Assessment criteria specify how an assessment task will be judged. They may also include recognition of formative assessment, for example by requiring completion of a formative task as a pre-requisite for a summative assignment. Both formative and summative assessment tasks should enable learning by emphasizing progress and achievement and hence fostering motivation.

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Assessment feedback should relate specifically to the learning outcomes and assessment criteria and indicate to learners how to improve.

When writing outcomes and criteria the potentially broad nature of the audience should be borne in mind and the language kept clear and straightforward, avoiding ambiguity. For further advice on writing outcomes and criteria and developing assignment tasks, consult the Learning and Teaching Development Unit website.

Self-Check sheet 1.1-1

1. What is learning materials?

2. What is Learning Resource?

3. What is learning Outcome?

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Answer sheet 1.1-1

1. What is learning materials?

Answer: Learning materials is a generic term used to describe the resources. Trainer and trainees use to deliver instruction. Ideally, the teaching materials will be tailored to the content in which they're being used, to the students in whose class they are being used, and the trainees

2. What is Learning Resource?

Answer: Learning resources are texts, videos, software, and other materials that **teachers** use to assist **students** to meet the expectations for learning defined by provincial or local curricula. Before a learning resource is used in a classroom, it must be evaluated and approved at either the provincial or local level. Evaluation criteria may include curriculum fit, social considerations, and age or developmental appropriateness. Chalk, board, duster, charts, ad-aids, learning software, library and instructional material are the examples of learning resources. A resource center is a facility within a school, staffed by a specialist, containing several information sources.

Examples -

Textbooks (print and digital),
Workbooks,
Worksheets,
Manipulative (blocks, beads, etc.),
Educator workshops,
Non-fiction books,
Posters,
Power point, etc.

3. What is learning Outcome?

Answer: **Learning outcomes and assessment criteria are an essential part of curriculum design and need to be written in the planning stages.** Well written outcomes and criteria enable higher level skills and a learner-led curriculum to be developed.

Learning outcomes are:

- Define what trainees are expected to learn and what they need to do to pass.
- Provide clarity for an external audience (other colleagues, examiners, parents, employers etc.) of the standards required of learners
- Enable consistency of standards when, for example, several different tutors/markers are involved
- May, by specifying originality of thought, application or process, mitigate against plagiarism.

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Information Sheet 7.1-2

Adult learning

Learning Objective:

After reading this Information Sheet, you will be able to adopt adult learning system

Interpret adult learning system is necessary for understand principal of adult learning
It will give ideas for develop Learning materials.

Adult learning

What is adult learning?

Adult learning is defined as ‘the entire range of formal, non-formal and informal learning activities which are undertaken by adults after a break since leaving initial education and training, and which results in the acquisition of new knowledge and skills.

Adult learning is different from that of children. In order to evaluate and use learning materials properly, we need to understand a little about the theory of learning.

Education and learning are different, education emphasizes the educator, and whilst learning emphasizes the person in whom the change is expected to occur. Learning can be defined as the process of gaining knowledge and/or expertise. It is this change of behavior and gaining of skills and knowledge that we particularly need to achieve in leprosy training and health education.

‘Seven core principles have been identified in the practice of adult learning; these are:

Learner’s need to know.

Adults bring life experience and knowledge to the learning environment. This experience and knowledge includes work-related, family, and community events and circumstances. Adults learn best when they can relate new knowledge and information with previously learned knowledge, information, and experiences.

Provide opportunities for learners to reflect upon and share their existing knowledge and experience.

Create learning activities that involve the use of past experience or knowledge.

Ask learners to identify the similarities and differences between what they are learning and what they already know.

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Self-concept of the learner.

Adults tend to prefer self-directed, autonomous learning? But this is often not an expectation of learning institutions and society.

Design training around participants' needs and goals.

Ask participants what they want to learn. Learners learn best when they establish a specific learning objective or goal for themselves.

Provide learner action-planning tools and templates to help develop and focus their self-directed efforts and facilitate learning.

Provide opportunities for learners to direct their own learning through guided inquiry and self-facilitated small-group discussions.

Prior experience of the learner.

Adults have self-pride and desire respect. They need their experience, beliefs, knowledge, questions, and ideas acknowledged as important.

Because learning involves risk and the possibility of failure, design training to minimize each learner's risk and embarrassment.

Provide opportunities for learners to share ideas, questions, opinions, experiences, concerns, etc. and to create an environment that honors and respects everything that is appropriately shared.

Create flexible training programs that honor participants by accommodating their contributions and questions as much as possible.

Make it safe for learners to express their confusion, anxieties, doubts, and fears.

Provide opportunities for "small wins" and little victories in the learning process - to build competencies incrementally.

Readiness to learn.

Adults want practical, goal-oriented, and problem-centered learning that can immediately help them deal with life's challenges.

Ask learners to identify what they would like to learn about a topic.

Establish clear learning objectives that make the connection between participant's needs and the learning content.

Share examples and stories that relate the learning content to participant's current challenges. Ask learners to share their own examples that make this linkage.

Engage learners in identifying the challenges they face and the value of learning to addressing these challenges.

Follow theories with practical examples and applications to demonstrate the relevance of the learning.

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Orientation to learning.

Adults have preferences for the way in which they learn. Some prefer learning by doing (kinesthetic), others prefer learning by observing (visual), while still others prefer learning by listening (auditory).

Recognized that not all learners will respond to a given teaching method or technique.

Use a wide variety of methods that tap into all learner preferences in training delivery.

Use all three learning modes (kinesthetic, visual, and auditory) in every 20-minute teaching interval.

Make trainers aware of their own learning preferences and make them wary of favoring this approach in their own teaching.

Free learners to learn in the style that best suits them by using small group work, dyadic discussions, and individual activities.

Motivation to learn.

Adults are motivated to learn by a wide variety of factors. These are the most common: personal aspirations, externally imposed expectations, internal desire or interest, escape from a situation (boredom or fear), growth and advancement, and service to others.

Inquire into the reasons participants are interested in learning.

Invite learners to identify the link between learning and the satisfaction of a personal need or a reduction in an external stress or threat.

Make a connection between the learning content and each learner's long-range objectives (in work and life).

Ask participants to discuss in dyads and small groups the short- and long-term benefits of learning the program's content.

Desire feedback on the progress

Adults desire feedback on the progress they are making at learning something new.

Provide opportunities for learners to get immediate feedback to their own learning through case examples, role-playing, quizzes, and responses to trainer questions.

Encourage learners to self-evaluate and assess their own learning and performance.

Praise any level of learning improvement and encourage continued learning.

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Self-Check Sheet 1.1-2

1. What is adult learning?
2. Write down the principle of adult learning?

Answer Sheet 1.1-2

1. What is adult learning?

Answer: Adult learning is defined as ‘the entire range of formal, non-formal and informal learning activities which are undertaken by adults after a break since leaving initial education and training, and which results in the acquisition of new knowledge and skills.

2. Write down the principle of adult learning?

Answer: Learner’s need to know.

Self-concept of the learner.

Prior experience of the learner.

Readiness to learn.

Orientation to learning.

Motivation to learn.

Desire feedback on the progress

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Information Sheet 1.1-3

learning environment

Learning Objective: After reading this Information Sheet, you will be able to create learning environment

Understanding learning environment is necessary for understand suitable condition for learning It will give ideas for develop Learning materials.

What is learning environment?

A learning environment is a diverse platform where users engage and interact to learn new skills. While learners can learn in an array of settings, the term refers to the more preferred and accurate alternative to the traditional classroom.

Components and Importance of an Effective Learning Environment.

Establish a supportive learning culture

Each member of the learning community should have the feeling of connectedness. They must feel that they are contributing to the overall environment while being a bigger and important part of a supportive learning culture.

Learners can use these platforms to provide support to fellow members, to address concerns, and to express their ideas and opinions about some topic.

Address Learners' Needs

Just like adults, learners also have some psychological needs for order and security, love and belonging, competence and personal power, novelty and freedom and even fun. It is important to meet these needs at all times and to help learners progress and be taught with a positive attitude.

Any learning environment, where instructors accommodate these intrinsic needs, learners tend to be happier and more engaging. There are less behavioral incidences than otherwise and this fulfilling learning atmosphere help learners in developing the right learning attitude while establishing positive relationships with peers.

Keep it Positive

Learners respond far better to praise than punitive measures. Appreciation is the key to motivation, unlike humiliation, that is highly discouraging. Learners appreciate the freedom to express their opinions; similarly, the opinions of their peers also play a crucial role in defining their learning attitude.

However, the best way to cut down this negative behavior, in a professional learning environment, is to start correcting the behavior without highlighting the names of the ones making mistakes.

Make good learning material

User-friendly written learning materials need to contain the right material in a logical and well presented form. They should be at the level of the learners and clear in their

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language and style. Several criteria have been developed to measure user friendliness. They look at simplicity of language, clarity of expression, logical sequence, page layout, pictures, style of writing and availability.

Visual materials also need testing. Sociological and learning differences have a large effect on picture understanding and since materials are often developed by the urban educated elite for the rural illiterate poor, there can be serious communication gaps. Pictures should be shown to the target audience and a series of simple questions asked such as: What is happening in this picture? What is this? Can you tell me what this diagram is saying? The same evaluation can be applied to animated visual materials such as videos. Viewers should be asked to summarize the message; to say which sections they like the best and why; and which sections they found confusing. Again the test viewers should be drawn from the proposed target audience rather than a group of trainers or 'experts'.

The pre-testing of materials is very important not only to avert expensive disasters, but also to make sure that the goal of the material is achieved. The material should be pre-tested for acceptability of the idea, and comprehension of the individual pictures and whole message. The test should be carried out on several different people depending on the target audience and users.¹⁴ It is also helpful to pre-test the use of the materials. Test the difference between interactive and passive use with different but matched groups.

Long-term outcome and impact assessment is particularly important to evaluate community health learning materials. To evaluate the material, it must have a clear goal and message. The evaluation must measure whether change has taken place and look at the attitudes that have changed, since the target group has been exposed to the media. The evaluation will thus be dependent on some baseline data about beliefs and practices prior to the health education. KAP studies can help measure general success, but the relationship between increased knowledge and a change in attitudes is often difficult to ascertain and may only apply to schoolchildren as in Tanzania.

Identify existing resources

Often, when you design a learning resource it is because there is nothing suitable available to assist in the delivery of some specific content. When developing an online resource, however, there may be a range of resources already available that you can adapt to suit your selected media and purpose.

Written resources, photographs, videos, case studies etc may be available and it may be a matter of repurposing that content for your needs. That way, more effort can be focused on developing an engaging interaction

Identify available resources - books, websites, teacher notes, hardware and software, etc might be a good place to start.

Remember that a print based resource covering the same material cannot simply be converted to HTML and then called an online learning resource!

If you are considering using existing resources make sure you:

are not in breach of copyright laws

seek appropriate permissions before using or adapting content

apply principles of online learning design to ensure the content is fit for purpose

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When identifying existing resources it may be beneficial to estimate what percentage of the resource can be repurposed to help inform your staff resourcing needs.

Below is one example of how resources have been identified.

Content Area		Pre-existing materials used?*(yes or no)

Self-Check Sheet 1.1-3

1. What is learning environment?
2. What is existing resources

Answer Key 1.1-3

1. What is learning environment?

Answer: A learning environment is a diverse platform where **users** engage and interact to learn new skills. While learners can learn in an array of settings, the term refers to the more preferred and accurate alternative to the traditional classroom.

2. What is existing resources

Answer: **Written resources, photographs, videos, case studies etc available resources - books, websites, teacher notes, hardware and software, etc might be a good place to start.**

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LEARNING OUTCOME 2: ADAPT EXISTING RESOURCES

ASSESSMENT CRITERIA

- 2.1 Existing learning materials and resources are contextualized and modified to suit the learners need.
- 2.2 Draft learning materials and resources are reviewed with key stakeholders.
- 2.3 Draft learning materials and resources are adjusted to reflect the review outcomes.

CONTENTS:

- Adapting Existing Resources
- Modify materials and resources

CONDITIONS:

Trainees must be provided with the following:

- Handouts or reference materials/books on the above stated contents
- PCs/printers or laptops with internet access
- LCD/Digital Projector and Screen
- Microphones
- Bond paper
- Ball pens/pencils and other office supplies and materials
- Communication resources
- Workplace or simulated environment

METHODOLOGIES:

- Lecture/discussion
- Demonstration/application
- Presentation

ASSESSMENT METHODS:

- Written test
- Demonstration
- Oral Questioning
- Observation with checklist
- Portfolio.

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Information Sheet 1.2-1

Adapting Existing Resources

Adapting existing materials usually requires less time and fewer resources than developing new materials. Before using existing materials, review the materials to ensure accuracy of information. Also, be sure to review and evaluate the materials based on individual, community, and program needs. You may be able to use some products and materials without any modification. Other materials may not be appropriate for your target audience or compatible with your program's guidelines. These materials may require modification.

Below are some tips and resources to consider for evaluating and adapting materials.

Assess needs and resources

Identify program resources (time, personnel, budget) for material development or adaptation.

Get to know your audience and build a partnership for the process of adapting and developing materials. Getting to know the audience helps determine what information to include based on what they already know and what they need to learn. This is also essential in ensuring the right reading level and ensuring the content is culturally and linguistically appropriate.

Identify your audience's needs and resources through literature searches, observations, informal conversations, surveys, interviews, and focus groups.

Evaluate the material

Evaluating health education materials will help you determine if the material can be used as is, if it can be adapted, or if a new material should be developed to better meet the training and education needs of the target audience.

It is important to thoroughly review the content for accuracy; is the information consistent with recent guidelines?

Also review the writing style, reading level, images, and format to determine what needs to be revised for your setting, audience, and training/education needs.

Find out whether you need permission to use or adapt the existing material

Some organizations have copyright requirements. Contact the organization, author, or production company to get more information and permission to use or adapt the material

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Adhere to the “Fair Use” clause. This clause states that you can use some materials for learning purposes, but you cannot publish, sell, or take credit for them without written permission.

Government documents and publications are not copyrighted. They are free for all to use without permission. If you make changes to government documents, all government logos should be removed before publishing.

For all adapted materials, it is common courtesy to give proper acknowledgment and a full citation to the original materials and producers.

Pilot test (field test) new or adapted materials with members of your audience

Pilot testing is a strategy that allows members of your target audience to review the materials before they are finalized and mass produced.

Pilot testing can help answer questions about alternate ways to present information, concepts, content, appearance, and format.

Pilot testing can also identify confusing or unclear terms and determine if the material is effective in increasing knowledge or changing attitudes.

Pilot testing methods include focus groups, in-depth interviews, surveys, and questionnaires.

Pilot testing will help save your program time and money because it identifies which messages and materials work best with your target audiences.

Make changes based on pilot test

After pilot testing materials, collect and review the information.

Make changes to the materials based on comments and suggestions.

Finalize and implement

Determine how many copies of the materials are needed.

Develop a distribution and marketing plan for the materials.

Evaluate your adapted material

Monitor the quantity of materials distributed and determine how the materials are being used.

Periodically reevaluate, update, and revise the materials as needed.

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Self-Check 1.2-1

1. Why need review Existing Learning materials?

2. Why need Evaluate Learning Materials?

Answer Key 1.2-1

1. Why need review Existing Learning materials?

Answer: Before using existing materials, review the materials to ensure accuracy of information. Also, be sure to review and evaluate the materials based on individual, community, and program needs.

2. Why need Evaluate Learning Materials?

Answer: Evaluating **health education** materials will help **you** determine if the material can be used as is, if it can be adapted, or if a new material should be developed to better meet the training and education needs of the target audience.

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Information Sheet 1.2-2

Modify materials and resources

The range of learning operational resources

Overhead projector and transparencies

Internet / web based resources

multimedia / data projector

slides – power point presentation

Video / CD / DVD

Film

Computer training packages

Blackboard / whiteboard

Magnetic boards and cards

Charts and posters

Notice boards

Handouts

Competency Based Training and Assessment resources / guides

Tape recorders / Video recorders

Text books and references

Workbooks and manuals

Blackboards and whiteboards

The most common and versatile learning resource is a whiteboard or blackboard.

These boards:

are readily available.

need no power (except for electronic whiteboards).

are simple to use.

allow you to use colour.

whiteboards may be used as a projection screen for slides, overhead transparencies, allowing other information to be overlaid on the projected image.

You can have a 'wipe as you go' philosophy turning to it for short bursts, like a:

Snappy starter in a brainstorming activity;

Short formal overview of the session;

quick summary at the end of a group discussion;

reinforcement of key points at the end of a segment.

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Or you can rely on it more heavily, building the content of a session so that at the end there is a clear 'map' of what has been covered.

Or you can combine the two styles by dividing the board and reserving a space for jottings which can be cleaned as soon as they have served their purpose.

Some general guidelines

Whichever style you adopt make sure you follow these general guidelines:

Make sure that everyone can see the board.

Use boards for main points—put extensive detail on a handout.

Use large print.

Always start a presentation with a clean whiteboard unless you wish to prepare specific material beforehand. If so, have it on the board before the session starts and cover with a pull down projection screen or paper until you are ready to use it.

Avoid chalk and talk. It is very disconcerting to talk and write on the board at the same time. When speaking, look at the trainees and not at the board.

Experiment with simple design ideas such as using coloured chalk or pens, putting headings in capitals and boxes, using symbols or stick figures to represent abstract ideas. However, some trainees may be colour blind, so avoid using red and green pens if possible.

When you do write, face the board squarely and move from left to right across the board. This helps you write in a straight line. When you've finished, stand aside so that the trainees can see the board and the information.

Use chalk with firm strokes and rotate to keep a good point. For pens, use a lighter touch and store on their side (horizontal) for longer life.

Effectiveness of using diagrams

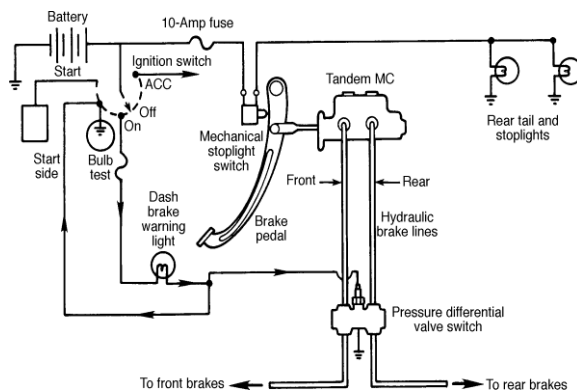
Diagrams are graphical representation of information.

Diagrams include maps, graphs, tables, bar charts, sketches, technical drawings and flow charts, to mention but a few.

Most effective when you need to follow a plan/map of something that is not all visible at the onetime like all the wiring for the lights on a car.

Diagram of vehicle brake lights wiring

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Checking available learning resources

What should I look for when checking existing resources?

Depending upon what you are teaching/training, there may be a great deal of resources that have already been developed that you can use in the learning session, rather than developing your own.

However, the fact that they exist and may even have been developed specifically for teaching does not mean that you can simply copy them and distribute them to the learners.

There are several factors that need to be addressed in this regards which are briefly discussed below:

Language

Is the language appropriate for the learners for the level of training? Does it contain a lot of jargon or long words that the learners will struggle with? Sometimes it is important for learners to be aware of industry-specific jargon, but it should be explained clearly and carefully.

The best place to start is by reading the material yourself. This may

Learner characteristics

Learners need to feel that they can identify with and understand the learning resources chosen. You need to check that resources

Are safe and accessible

reflect diversity,

does not demonstrate disrespect towards gender, religion, culture or local customs in any form and

that learners can relate to the situations portrayed.

Checklist for selecting resources

Here is a checklist that may assist you when selecting a resource.

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Firstly, analyse the curriculum document to ensure that you are clear on:
appropriate assessment procedures
existing recommended resources.

Then consider the following points when choosing resource materials:

What is the subject area?

What is the title of the resource (for reference purposes)?

Who are the intended audience?

Is the material relevant for the session learning outcomes?

Is the information current and accurate?

Is language simple, conversational and inclusive?

Has gender sensitivity been maintained in the development of resources?

Do any portrayals of characters show diversity?

Do any portrayals of characters show disrespect towards local culture, religion and customs?

Is it likely to engage and excite the learners?

Is the pace appropriate?

Is it organised logically?

Have you considered copyright?

Turn to the first activity in this topic where you identified the resources you would use to enhance your presentation. Make any alterations to your response, based on the work covered so far in this topic.

Consumable resources

Often consumable items are overlooked. How many times have you gone to use a whiteboard and either no pen or a dried-up old pen is there? Consumable materials include:

marking pens

overhead transparencies

CDs and DVDs

paper for the printer

butcher's paper or flip charts

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whiteboard markers

chalks (yes, there are still some blackboards out there).

If you are using a computer or other equipment, you need to ensure that the associated consumables are available - these can easily be overlooked.

Customizing and developing resources

What if I find a good resource but I want to change it a bit?

There are a lot of learning resources available in almost every subject area imaginable. You can use the library network to access print-based materials, videos, audio tapes, self-paced packages. You can also go on-line and link up to a vast array of on-line resources.

The resources you find will either be appropriate as they are or they may need to be customized. Customizing means taking existing sound like an obvious suggestion, but you would be surprised by the number of teachers who hand out notes they have obtained from elsewhere without reading them first. The results can be disastrous.

Relevance

Sometimes it is tempting to prepare for a session by preparing lots of handouts. This will not, in itself, ensure that the learner understands the material covered in the session.

The resources used must be relevant in terms of:

Units of competency and their elements

Session learning outcomes.

Importantly, the learner must see them as relevant, with application to their learning material and tailoring it to meet the needs of your learners. You need to check whether they can be customised and adhere to copyright considerations.

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Self-Check 7.2-2

1. What is operational Resources?
2. What is Consumable resources?

Answer Key 7.2-2

3. What is operational Resources?

Answer: The learning operational resources are

Overhead projector and transparencies

Internet / web based resources

multimedia / data projector

slides – power point presentation

Video / CD / DVD

Film

Computer training packages

Blackboard / whiteboard

Magnetic boards and cards

Charts and posters

Notice boards

Handouts

Competency Based Training and Assessment resources / guides

Tape recorders / Video recorders

Text books and references

Workbooks and manuals

2. Answer: Consumable resources

Often consumable items are overlooked. How many times have you gone to use a whiteboard and either no pen or a dried-up old pen is there? Consumable materials may include:

marking pens

overhead transparencies

CDs and DVDs

paper for the printer

butcher's paper or flip charts

whiteboard markers

chalks (yes, there are still some blackboards out there).

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LEARNING OUTCOME 3: DEVELOP NEW RESOURCES

ASSESSMENT CRITERIA

- 3.1 Format for designing Learning materials are collected and interpreted.
- 3.2 Relevant learning materials and resources are developed based on competency standard and set format.
- 3.3 Draft learning materials and resources are finalized and documented.

CONTENTS:

- Learning Activities and Methods
- Effective Training or Learning Materials

CONDITIONS:

Trainees must be provided with the following:

- Handouts or reference materials/books on the above stated contents
- PCs/printers or laptops with internet access
- LCD/Digital Projector and Screen
- Microphones
- Bond paper
- Ball pens/pencils and other office supplies and materials
- Communication resources
- Workplace or simulated environment

METHODOLOGIES:

- Lecture/discussion
- Demonstration/application
- Presentation

ASSESSMENT METHODS:

- Written test
- Demonstration
- Oral Questioning
- Observation with checklist
- Portfolio.

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Information Sheet 7.3-1

Learning Activities and Methods

These days most of us have access to sophisticated computers and software that facilitates the production of professional looking materials. So what are the other elements that enable us to produce materials that support the achievement of outstanding learning outcomes

First we need to know our audience and the intended use of the materials. As we outlined in the previous section on how we learn the things to consider in designing include:

Adult learning principles and their implications for how writers structure their materials
Learning style preferences and how these can inform our selection of learning materials and our use of language as we write

Potential barriers to learning and how these can be overcome

For many trainers when we are faced with the task of writing training materials we find ourselves struggling to combine our knowledge of competencies, content, learning outcomes, instructional techniques and learning activities into a completed document. If you have ever found yourself in this situation you may find Robert Gagné's (1999) model useful in providing a structured approach to developing your materials. This provides a nine steps that can assist you in your writing:

Gain Attention – to orientate and motivate the learner

Inform Learners of Objectives – to guide learners and to assist them to organize their thoughts around what they are about to learn

Stimulate Recall of Prior Knowledge – because adults learn by establishing relationships with what they know and a new knowledge or skill

Present the material – in a way that appeals to the different learning references and is easy to digest

Provide guidance for learning – by providing opportunities to integrate new information into their existing knowledge base

Elicit performance by providing safe opportunities to practice

Provide feedback – to reinforce or correct learning

Assess performance – learners should be given the opportunity for assessment to gain recognition of their success in learning

Enhance retention and transfer – by encouraging learner to plan the application of what they have learnt

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Choosing Learning Activities and Methods

This is a key aspect in providing the variety that engages all of the learners who use our materials in their learning activities. Careful selection and sequencing of learning activities and methods is fundamental in our development of professional training materials that really do work.

Analogies

Assist learners to make connections with the materials and what they already know. Many well-known concepts have been effectively explained using this technique.

Examples include:

The way data is organized and stored on a hard drive is like how we store hard copy information in an office. Information is partitioned and stored in folders, just like we do in filing cabinets.

Organizations resist change in much the same way as a thermostat regulates the temperature in a room. When something happens that affects the organization it's thermostat kicks in and adjusts the way the organization behaves to return it to the status quo. This is just like the thermostat in your air conditioning adjusting how much cooling or heating effort is made to maintain a steady temperature in your room.

Case Studies

Case studies are an excellent way of providing opportunities for analysis of 'real world' situations which pose problems for the learner to solve as well as a chance to apply or consolidate their learnings. Key issues to keep in mind in developing or selecting your

Case studies are:

Making sure they are as realistic as possible for the learners

Getting the right balance of complexity for the learners needs

Ensuring enough background information about the characters, environment and the issues or problems is provided

Being specific about the problem to be analyzed or resolved

Providing very clear instructions to the learners

You can also use short scenarios to provide learners with the opportunity of solving issues. Things like here is a situation what would you do? How do you think you would act in this situation? What could have been done instead?

Charts and Diagrams

Graphics improve the comprehension of underlying principles and maintain a viewer's interest. Modern software packages (eg Word, Excel, Powerpoint) enable us to quickly produce graphics, such as bar and pie charts, and detailed diagrams.

Photographic images, 'clip Art' files or drawings can also be easily imported into a documents are writing.

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Checklists

Checklists are simple tools that can be used for a variety of purposes. These include:

At the end of a topic as a reminder and self affirmation by the learner of the key points

For use in there workplace as a job aide

To provide the learner with a method of determining if they are ready for assessment

At the start of a topic to gain a learners attention

Instructional Games and Simulations

These can be excellent, and enjoyable, way for learners to become involved in the learning process with the risks associated with learning in their workplace. Some basic principles are provided by Silberman and Auerbach (1990) which should be considered in choosing or developing your games or simulations:

They should be relevant to their needs and work situation

The easiest way to create your own is to mimic the format and character of existing games and simulations (e.g. Jeopardy, Wheel of Fortune, Desert Survival, Monopoly etc)

Modifying existing games and simulations to meet your needs

Starting with fun or contrived games and moving and following with more serious, less contrived games later

Make sure your instructions are well thought out and clearly communicated

Make sure you provide adequate opportunities to discuss or reflect on what happened and what was (or could be) learnt

Mind Maps

Mind maps are graphical techniques that help us think and remember better, creatively solve problems and take action. Some uses included note taking and note making, essay planning and problem solving.

The subject of interest is depicted in a central image and then the main topics radiate out on branches. To create a mind map:

get some plain paper and colour pens or pencils

Draw your picture that captures the subject you wish to map

Add the branches, and sub branches to portray the topics. Feel free to use both words and images

As thoughts about the subject occur to you add these to the appropriate branch or sub branch

Use arrows to connect linked

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Ideas Models

Models, help us communicate complex ideas in a way that is more easily understood and remembered. It is relatively easy to draw these and cut and paste them into your materials.

Mnemonic Aids

Are used to assist learners in remembering key concepts or principles. An example is RATER, which reminds us of the five factors that clients use to rate the quality of service they receive.

Reliability – striving to eliminate mistakes and errors

Assurance – demonstrating to clients that they are valued

Tangibles - the concrete things are delivered

Empathy – how well the service provider understood how the other person felt and what they wanted

Responsiveness – were the clients needs dealt with in a timely manner Pictures

As the old adage says ‘A picture is worth a 1,000 words’.

They can also be very useful in creating context for what is being presented and for assisting learners to anchor the learning.

Stories

Are an excellent way of providing real examples of how the information you are providing works in the real world? It gives you an opportunity to share some of your experiences with the reader, as well as explore the content.

Self Tests, Quizzes and Questionnaires

Tests, quizzes and questionnaires all add variety to your training or learning materials.

They are also powerful tools for gaining a learners attention, tapping into their past experiences and providing opportunities for learners to measure their progress. It is important that you consider how timely feedback on the answers will be given to the learner.

Writing Tasks

This activity allows an individual to reflect carefully on their own understanding. Writing activities can range from short question and answer tasks, worksheets or recording brief descriptions or workplace events, through to longer assignments and research projects.

Copyright Considerations

Copyright is a real issue.

Copyright does not protect ideas, information, concepts, techniques or styles. What it does protect is the way a person expresses themselves, including the way they select and arrange material. Recent changes to the law in Bangladesh have introduced the concept of moral rights. This means the creator of written materials has the right to:

Be credited as the creator of the work

Take action if their work is falsely attributed to someone else

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Take action if their work is used in a way that is prejudicial to their reputation

It is important for us all to remember that in Australian law a copyright notice does not have to be on a work for it to be protected by copyright. Reproducing or communicating copyright material without the copyright owner's permission will usually infringe copyright. Reproducing or communicating part of a work may also infringe copyright.

There is always someone in a book or article that says exactly what you want to say, so be diligent when quoting from other sources and check to be sure you are not breaking copyright law. If you intend to use sections of someone else's work, then you will need to seek permission from the author or publisher. This can be a lengthy process.

In many situations it is much better to paraphrase a person's ideas or concepts and reference this in your writing.

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Self-Check 7.3-1

1. What is Case Study used for?
2. Write down the nine steps that can assist you in your writing?
3. Why Self Tests, Quizzes and Questionnaires use?

Answer Key 7.3-1

1. What is Case Study used for?

Answer: Case studies are an excellent way of providing opportunities for analysis of 'real world' situations which pose problems for the learner to solve as well as a chance to apply or consolidate their learnings. **Key issues to keep in mind in developing or selecting your**

2. **Write down the nine steps that can assist you in your writing?**

Answer: Nine steps that can assist you in your writing:

- ☐ **Gain Attention** – to orientate and motivate the learner
- ☐ **Inform Learners of Objectives** – to guide learners and to assist them to organize their thoughts around what they are about to learn
- ☐ **Stimulate Recall of Prior Knowledge** – because adults learn by establishing relationships with what they know and a new knowledge or skill
- ☐ **Present the material** – in a way that appeals to the different learning references and is easy to digest
- ☐ **Provide guidance for learning** – by providing opportunities to integrate new information into their existing knowledge base
- ☐ Elicit performance by providing safe opportunities to practice
- ☐ **Provide feedback** – to reinforce or correct learning
- ☐ **Assess performance** – learners should be given the opportunity for assessment to gain recognition of their success in learning
- ☐ **Enhance retention and transfer** – by encouraging learner to plan the application of what they have learnt

3. Why Self Tests, Quizzes and Questionnaires use?

Answer: Tests, quizzes and questionnaires all add variety to **your** training or learning materials. They are also powerful tools for gaining a **learners** attention, tapping into their past experiences and providing opportunities for learners to measure their progress. It is important that **you** consider how timely feedback on the answers will be given to the learner.

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Information Sheet 7.3-2

Effective Training or Learning Materials

Your written materials may be used for a range of delivery styles and methodologies. It is important to be very clear about how your materials are intended to be used when designing and writing materials. In the National Volunteer Skills Centre project we have decided that our materials will be primarily used for instructor led learning and that in some situations they will be used for self-paced learning. We refer to these materials as training guides (for trainers) or learning guides (for learners).

Many of us find it helpful to think of the learning materials we have used, especially those that engaged us in the learning process and helped us achieve significant outcomes.

It is the way that some writers connect with us and take us on a journey through the content in a way that links us to experiences and knowledge embodied in the material.

They do this by engaging us in thinking about the information and looking at ways of applying this as we progress. They also use a wide variety of learning activities and integrate adult learning principles to make learning much easier, quicker and enjoyable.

Writing effective training or learning materials requires knowledge, skill and effort. In preparation for writing consider that you need:

To enjoy writing

Knowledge of your subject area and be able to put time into research

Relevant personal experience that you can draw upon

Appropriate knowledge of instructional design, adult learning and training.

To focus for periods of time without interruption

If you have never written training or learning materials before, then spend some time with people that have, talk about the issues that they faced and how they overcame these.

Obviously their issues and solutions may not be the same as yours, but you will gain an understanding of strategies they use and you may be able to adapt some of these.

Developing Your Writing Style

We are all different, therefore we write differently. The issue is not what style you use but how well you connect with learners. When we write these materials they need to be real. (i.e. based on real examples or written so they are representative of what really happens) The person reading the materials needs to feel a link between what is written and themselves. This means that as writers we invest a part of ourselves in the materials we are creating. We use examples from our experiences, and those we have heard about (changing the names to protect confidentiality of course). It is not easy to

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build a relationship through the written word, but if learners are relying solely on written materials for their learning, this is what you must endeavour to do. It is a skill writers need to develop and use.

The materials that you write need to be appropriate to the range of people that will be using them. Your writing style also needs to reflect the nature of the information that you are presenting.

When we read materials we should be able to hear in our heads the writer, as if we know them. A good writer lets us know who they are. You can hear them reading to you as you move through the content. If we can hear you, then you are on the right track. This is particularly important for those who are going to rely solely on the written materials for their learning.

Stay with the one style of writing and check for consistency, or people may become confused. If you are co-writing with others, make sure that the language and style is consistent. It's okay for others to write different sections, but check the flow, style and language.

So what are the key points for developing your writing style?

Know your audience. Who are they? What learning background do they have? How much time do they have? Are they going to have a facilitator or trainer to support their learning? Is English their first language? What cultural background do they relate to?

Start where you want the learners to finish. This means you know your content. You should make sure you are conversant with the competency, that you have the big picture and can then look at it from an overall perspective

Use your analysis of the competency to determine the topics. If you do use the elements as topics be aware that performance criteria are often repetitive because of common underpinning knowledge or skills

Plan your materials. Consider the structure, length, style, diagrams, case studies, activities, illustrations, etc. Get the big picture and then write in a logical progression

Don't get bogged down with planning. Remember effort in writing is seldom wasted; you can move things around later. If you're not completely sure of how or where to start, then just start where you can. In this day of computers. Some writers get the most interesting or exciting part done first. This gives them the momentum to get the rest done later

Don't hatch the first draft. It is no use to anyone if you sit on the draft looking to get it perfect before you give it to someone to look at. Get the ideas down, refine it once, then

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hand it over. The feedback will help clarify your thoughts, and it also gives you a space in time to find your objectivity again

Remember that people learn differently. So develop your content to ensure your work flows easily and activities are incorporated in a relevant and useful way that engages the different learning styles

Lead the learner through the learning process. You need to start at the basics, and gradually increase the degree of skill and knowledge to meet the ultimate goal – competence in the specified area. Ensure that your writing enables the learner to sequentially develop an understanding of the concepts and enables them to develop the skills required. Check that you have covered everything in the competency standard once you have finished your first draft

Find reliable people to review your writing. People that understand training, learning styles and the subject area. Give them specific ideas of what you require feedback on and how you would like to receive the feedback

Improving your Writing

A number of principles underpin success in writing of training and learning materials that are effective in achieving their objectives. An article by Booher (1999) identified a number of tips to improve your training materials. These included:

Using overviews instead of introductions.

Instead of just mentioning the contents or learning outcomes to introduce a topic, writers should use overviews to provide the learner with the key concepts and to draw interest.

Make the dialogue sound real, not artificial.

Use clear, crisp and simple language that reflects authentic speech. Then once you've written it read it out loud or get someone else to read your words. That way we hear sentences that don't ring true, or that sound too stilted.

Then edit straight away, while the words are fresh in your mind.

Create interesting case studies and role plays.

Use real-sounding names and situations relevant to the learners. Provide a clear, succinct statement of the issue to be identified or resolved. Then provide a launch statement for the participants to wade into the activity.

Position ideas for highlighting.

Position ideas and information so that they get the attention they require. The most important spot in a paragraph is the first sentence and the most important spot in a sentence is at the end. To convey to a learner “this information is the most important,” take advantage of the impact of climactic sentences.

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Self-Check 7.3-2

1. What are the things consider that you need when preparation for writing CBLM?
2. How can you Improving your Writing?

Answer Key 7.3-2

1. What are the things consider that you need when preparation for writing CBLM?

Answer: Writing effective training or learning materials requires knowledge, skill and effort. In preparation for writing consider that you need:

1. To enjoy writing
2. Knowledge of your subject area and be able to put time into research
3. Relevant personal experience that you can draw upon
4. Appropriate knowledge of instructional design, adult learning and training.
5. To focus for periods of time without interruption

2. How can you Improving your Writing?

Answer: A number of principles underpin success in writing of training and learning materials that are effective in achieving their objectives. A number of tips to improve **your** training materials. **These included:**

1. Using overviews instead of introductions.
2. Make the dialogue sound real, not artificial.
3. Create interesting case studies and role plays.
4. Position ideas for highlighting.

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LEARNING OUTCOME 4: DEVELOP NEW RESOURCES

ASSESSMENT CRITERIA

- 4.1 Content of the developed materials is checked against content specifications.
- 4.2 Text, format and visual design are checked for clarity and focus.
- 4.3 Relevant personnel are identified and support is sought for the review and validation.
- 4.4 An external review is conducted using appropriate *methods, and feedback* is incorporated.
- 4.5 Final draft is reviewed against the brief and other relevant criteria prior to delivery to the client.

CONTENTS:

- Competency Based Learning Material (CBLM):
- Underpinning knowledge:

CONDITIONS:

Trainees must be provided with the following:

- Handouts or reference materials/books on the above stated contents
- PCs/printers or laptops with internet access
- LCD/Digital Projector and Screen
- Microphones
- Bond paper
- Ball pens/pencils and other office supplies and materials
- Communication resources
- Workplace or simulated environment

METHODOLOGIES:

- Lecture/discussion
- Demonstration/application
- Presentation

ASSESSMENT METHODS:

- Written test
- Demonstration
- Oral Questioning
- Observation with checklist
- Portfolio.

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Information Sheet 7.4-1

Competency Based Learning Material (CBLM):

CBLM is a learning guide which will lead a learner through a series of activities. These activities may be completed as part of structured classroom activities or you to work at your own pace. These activities will ask you to complete associated learning and practice activities in order to gain knowledge, skills you need to achieve the learning outcome.

When conducting a Competency Based Training & Assessment (CBT&A) for a UoC has to have a Module for the UoC and each unit of competency have one Competency Based Learning Material (CBLM).

Overall we can say that CBLM is

Media that contain information related to work requirement;

Learning that is guided towards achieving the competency required in the workplace;

Tools that facilitate individual learning process; and

Instrument that measure the competency required in the workplace.

Reasons for Using CBLM

Learning is self-paced;

Learning is student-centered;

Develop learning mastery;

Immediate feedback on the achievement of learning; and

Training is well-planned

The major parts of CBLM's contain which are:

- Information sheet
- Self Check sheet
- Answer sheet
- Job Sheet
- Specification sheet.

Job Sheet:

Job sheet is a set of instruction to perform a specific job. This is used when a basic task, operation or process needs to be mastered before doing the job. List all the steps a worker will need to complete the job.

Specification sheet:

In a specification there is a set of condition, Specifications, Diagram of existing job which is required to perform the job.

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Information sheet:

The information supports the job sheet; i.e. to perform the job required underpinning knowledge are included in the information sheet.

Characteristics of a Good Information Sheet

Free from violation of copyright law;

Contains information essential to the attainment of the learning outcomes;

Has a title that gives some idea of the coverage of the sheet;

Approach in terms of content and presentation is appropriate to the interest and reading level of the learner;

The layout, text and drawings are attractive in appearance and legible; and

Has uncommon terms marked for further defining

Has acknowledgement per copied part of the sheet.

Self-Check

Self-checks are sets of questions that would verify the acquisition of knowledge stated in the learning objectives.

Answer Keys

Answer keys should always follow a self-check so that a trainee can check his own answers immediately. This allows for immediate feedback.

Self-Check 7.4-1

1. What is CBLM?
2. What is the Reason of CBLM's?
3. What are the major parts of CBLM's?
4. What is job sheet and specification sheet?

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Answer Sheet 7.4-1

1. What is CBLM?

Answer: CBLM is a learning guide which will lead a learner through a series of activities. These activities may be completed as part of structured classroom activities **or you** to work at your own pace. These activities will ask you to complete associated learning and practices activities in order to gain knowledge, skills **you** need to achieve the learning outcome.

2. What **is** the Reason of CBLM?

Answer: Reasons for Using CBLM

1. Learning is self-paced;
2. Learning is student-centered;
3. Develop learning mastery;
4. Immediate feedback on the achievement of learning; and
5. Training is well-planned

6. What are the major parts of CBLM?

Answer: The major parts of CBLM contains:

1. Information sheet
 2. Self Check sheet
 3. Answer sheet
 4. Job Sheet
 5. Specification sheet
7. What is job sheet and specification sheet?

Job Sheet:

Job sheet is a set of instruction to perform a specific job. This is used when a basic task, operation or process needs to be mastered before doing the job. List all the steps a worker will need to complete the job.

Specification sheet:

In a specification sheet there is a set of condition, Specifications, Diagram of exiting job which is required to perform the job.

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Information Sheet 7.4-2

Underpinning knowledge:

It is important that you identify the underpinning knowledge necessary for learners so that they can meet the session learning outcome/s. This is **MUST KNOW** information and refers to key concepts or information associated with these outcomes. If they don't have this knowledge then they are not likely to be able to demonstrate competence by achieving the outcome.

Take care not to overload the student with theoretical knowledge that is not essential for the achievement of the stated learning outcome.

Identify Underpinning Knowledge:

Once you have found a task, the first step is to decide what information from the analysis (as per Job sheet & Specification sheet, if necessary) is essential to meet the learning outcomes. And after that, what would be covered only if there is time to spare. A useful model for this is a job targeted (Follow the Job sheet & Specification sheet, if necessary)

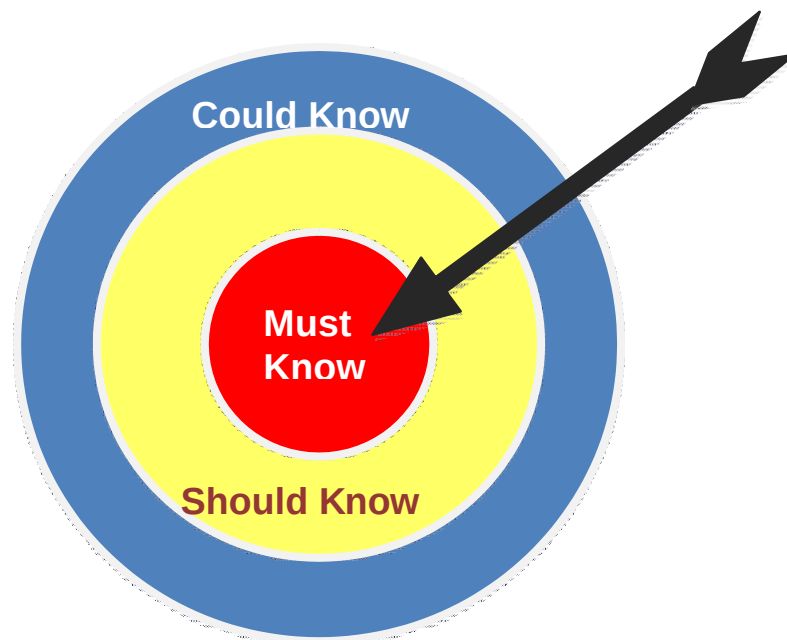
A useful for this is the job target:

This model helps you organize the information into three categories.

Must know: the information, skills or qualities the trainee must have acquired to be able to achieve the learning outcomes

Should know: additional information of an important but less critical nature

Could know: other information relating to the work, which would be of use , but is not essential



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Language: Is the languages appropriate for the learners. Does it contain a lot of jargon or long words that the learners will struggle with?

Sometimes it is important for learners to be aware of industry-specific jargon, but it should be explain clearly and carefully.

Relevance:

Ensure that the learner understands the material covered in the CBLM The resources must be relevant in terms of:

Units of competency and their elements

Learning outcomes

Importantly, the learner must see them as relevant, with application to their learning.

Symbol: Sometimes you need to add symbols which help to learner to understand the task

Diagram & Picture: It most important to link the job, and also self-explanatory that can help a learner to perform the job.

Example1:

Job: Paint a wall

Before performing painting s/he has to know the underpinning knowledge of

Types of walls

Types of brushes

Types of paints

Also the attitudes like clean brushes after use.

Example 2:

Mr. Rahim is a waiter of Westin hotel. He is serving breakfast for his customer so that he will need to operate an automatic toaster machine to prepare toasts.

Task : Operating an automatic toaster			
Elements (Basic Parts or Steps of the Task)	Knowledge	Skills	Attitudes
1. Pre-use toaster check	Effect of using an unsafe toaster	Place toaster in a safe location Check toaster cable for safety Connect to the power supply and turn on	Choose to accomplish task safely

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2. Use toaster	Use types of bread suited to toasting How to turn toaster on Safe handling techniques	Place bread in toaster (if required width) Adjust timer as required Activate toaster to start Toast bread and remove	Willing to use appropriate breads
3.Shut down toaster	How to disconnect from power supply How to clean	Turn off toaster at power supply Unplug toaster Clean and remove loose objects (once toaster has cooled down)	Choose to use toaster safely Willing to keep equipment clean

The above table shows that Mr. Rahim break down his task into three steps to perform the job safely and properly.

If you see this example you will find the required **underpinning knowledge** to perform the job safely and properly, those are mentioned in the knowledge & attitude column.

Self-Check 1.4-2

1. Why Important Underpinning knowledge?
2. How can Identify Underpinning Knowledge?
3. Why need Symbol, Diagram & Picture in include CBLM?

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Answer Key 7.4-2

1. Why Important Underpinning knowledge?

Answer: It is important that you identify the underpinning knowledge necessary for learners so that they can meet the session learning outcome/s. This is **MUST KNOW** information and refers to key concepts or information associated with these outcomes. If they don't have this knowledge, then they are not likely to be able to demonstrate competence by achieving the outcome.

2. How can Identify Underpinning Knowledge?

Answer: Once **you** have found a task, the first step is to decide what information from the analysis (as per Job sheet & Specification sheet, if necessary) is essential to meet the learning outcomes. And after that, what would be covered only if there is time to spare. A useful model for this is a job targeted (Follow the Job sheet & Specification sheet, if necessary)

3. Why need to Symbol, Diagram & Picture in include CBLM?

Answer: Importantly, the learner must see them as relevant, with application to their learning.

Symbol: Some times you need to add symbols which help to learner to understand the task

Diagram & Picture: It most important to link the job, and also self explanatory that can help a learner to perform the job.

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LEARNING OUTCOME 5: EVALUATE THE DESIGN AND DEVELOPMENT PROCESS.

ASSESSMENT CRITERIA

- 5.1 The design and development process is reviewed against appropriate *evaluation criteria*.
- 5.2 Identified improvements are documented for future intervention.

CONTENTS:

- Design and development process of the learning materials and resources
- Evaluation Criteria

CONDITIONS:

Trainees must be provided with the following:

- Handouts or reference materials/books on the above stated contents
- PCs/printers or laptops with internet access
- LCD/Digital Projector and Screen
- Microphones
- Bond paper
- Ball pens/pencils and other office supplies and materials
- Communication resources
- Workplace or simulated environment

METHODOLOGIES:

- Lecture/discussion
- Demonstration/application
- Presentation

ASSESSMENT METHODS:

- Written test
- Demonstration
- Oral Questioning
- Observation with checklist
- Portfolio.

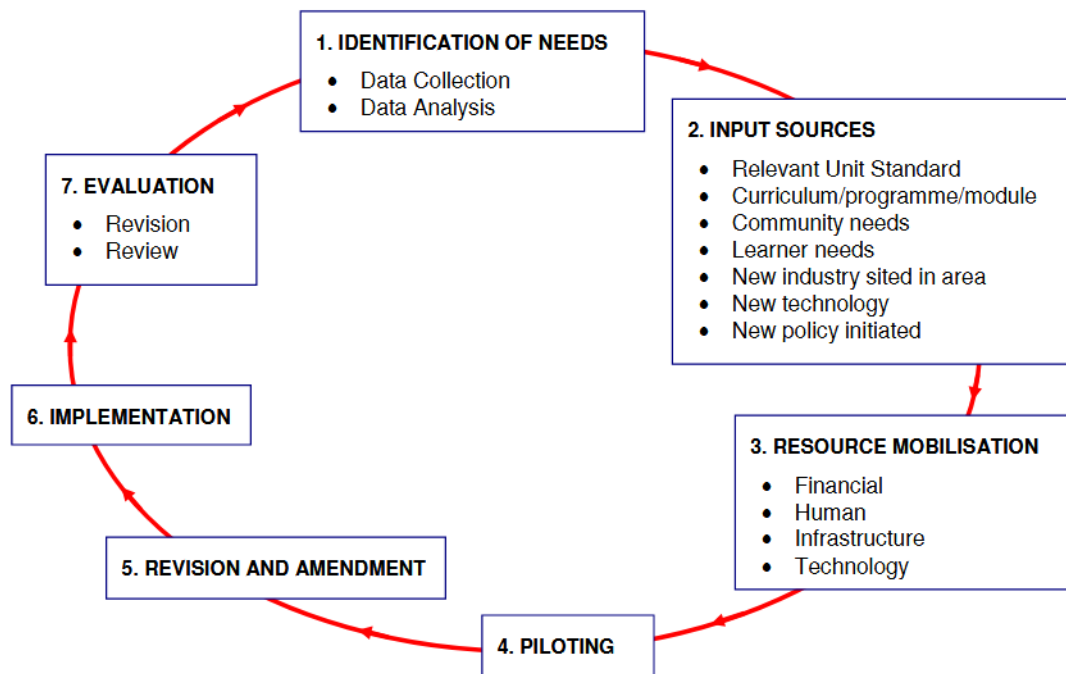
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Information Sheet 7.5-1

Design and development process of the learning materials and resources

MATERIAL DEVELOPMENT PROCESS

The Curriculum development model sampled in the Guidelines for Preparing Curriculum Linked to Unit Standards was adopted for the purpose of learning material development.



Identification of Needs

This is the planning stage where the developer can priorities and strategies on issues to consider. The developer is therefore required to:

- Establish the need for the learning material;
- Evaluate the existing materials;
- Compare the existing materials with identified outcomes of learning reflected in the curriculum/ programme /module;
- Identify gaps between the two;

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- Understand quality principles for developing learning materials;
- Ensure that a system for managing material development quality is in place;
- Outline activities or project plan for developing learning materials
- Identify constraints; and
- Consider the needs of the target group.

Input Sources

The overall objective of resource mobilization is to make material reach people it is intended for. Considerations should be made to :

- Determine resources needed for the efficient implementation of the curriculum /module (financial, human, infrastructure, technological);
- Develop the learning material;
- Synthesize quality requirements;
- Match learning with resources;
- Emphasize on learner centered approaches;
- Infuse Generic Skills;
- Determine the layout of the material;
- Sequence learning activities;
- Infuse self-assessment questions/tasks;
- Determine the production cost and implications thereof;
- Determine availability of storage facilities; and
- Determine the printing method.

Piloting

Piloting is done to determine the strengths and weaknesses of the developed material in order to take necessary remedial actions prior to its full implementation. The developer is expected to:

- Develop monitoring instruments for piloting;
- Identify institutions and/or learners for piloting;
- Use a variety of learning methods;
- Encourage and receive feedback from the learners and trainers on structure and content, approaches, duration and assessment strategies; provide frequent feedback to the learners and trainers; and
- use feedback for ongoing adjustments in the learning process.

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Revision and Amendment (After Piloting)

- Once the material has been piloted, the developer needs to amend it, as necessary, in accordance with feedback from those involved in the trial run to meet the needs of learners, trainers and industry, based on data gathered during the pilot process; and
- Prepare the ground, or market it, for full implementation.

Implementation

- At this stage it is considered that the material can be used to deliver the program. However, care must be taken to ensure that the material would continue to:
- Support acquisition of relevant and appropriate knowledge, skills and attributes;
- Show linkage of learning activities and the world of work;
- Address issues of content and application;
- Provide formative and summative evaluation, as well as feedback
- Determine assessment resources.

Evaluation

Revision and review of the material should be done regularly, and must, as much as possible be linked to that of the relevant curriculum/program/module. In order to determine the value factor of the material, evaluation instruments must be developed and implemented to:

- Determine the correlation between the identified needs and the impact of the material on learner's performance
- Establish support of learning material by learners, trainers and industry; and
- Establish content and structural correctness.

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Self-Check 7.5-1

1. How can you Identify of Needs?
2. What is Input Sources?
3. Why need Revision and Amendment of CBLM ?

Answer Key 7.5-1

1. How can you Identify of Needs?

Answer: This is the planning stage where the developer can priorities and strategies on issues to consider. The developer is therefore required to:

- Establish the need for the learning material;
- Evaluate the existing materials;
- Compare the existing materials with identified outcomes of learning reflected in the curriculum/ program /module;
- Identify gaps between the two;
- Understand quality principles for developing learning materials;
- Ensure that a system for managing material development quality is in place;
- Outline activities or project plan for developing learning materials
- Identify constraints; and
- Consider the needs of the target group.

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2. What is Input Sources?

The overall objective of resource mobilization is to make material reach people it is intended for. Considerations should be made to :

- Determine resources needed for the efficient implementation of the curriculum /module (financial, human, infrastructure, technological);
- Develop the learning material;
- Synthesize quality requirements;
- Match learning with resources;
- Emphasize on learner centered approaches;
- Infuse Generic Skills;
- Determine the layout of the material;
- Sequence learning activities;
- Infuse self-assessment questions/tasks;
- Determine the production cost and implications thereof;
- Determine availability of storage facilities; and
- Determine the printing method.

3. Why need Revision and Amendment of CBLM?

Answer: Revision and Amendment After Piloting

- Once the material has been piloted, the developer needs to amend it, as necessary, in accordance with feedback from those involved in the trial run to meet the needs of learners, trainers and industry, based on data gathered during the pilot process; and
- Prepare the ground, or market it, for full implementation.

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Information Sheet 7.5-2

Learning Material Evaluation Criteria

There are probably as many evaluative considerations to take note of as there are many learning materials. The under listed considerations are some basic generic needs to be satisfied before one can make useful decisions on learning material selection. Though they are in exhaustive, they constitute the basic minimal guidelines for learning materials evaluation.

Subject Content Criteria

The subject content is the learning experience that a teacher or a curriculum developer wants the learner to experience or acquire. The subject content may be broad based or inelastic. For example, the subject content may be as broad-based as biology for secondary school's students or as inelastic as the digestive system of a reptile.

A teacher who wants to use an instructional material must be able to determine whether or not such an learning medium is suitable for the topic to be taught.

They use textbooks, a chapter in it, a slide or a video tape, a diorama or any other material, it is important that a teacher knows how to relate the material selected to the intended learning objectives.

In his attempt to select a material for instruction, he must try to find answers to the following pertinent questions:

1. Is this material usable in direct relationship to a teaching point, to a curricular unit, to a specific learning experience or a problem solving activity?
2. Does the Materials contribute meaningful content to the topic or learning experience under study?

Utilization Criteria

One of the basic considerations here is to be able to evaluate an learning material and be able to determine if the material is good as a learning device, or an instructional apparatus or for both. The evaluation procedures come under three domains:

1. Before the material is used
2. After the material has been used and
3. During the period of its utilization.

User's Criteria

Ability to analyses the characteristics of a learning material the basic characteristics of the prospective users is one of the most important skills that a curriculum expert must have. The socio-economic background of the earners, their age and maturational level, their learning background and milieu all work to affect learning media choice and selection. These variables are important and consequently cannot be divorced from meaningful learning and productive instruction.

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Technical Criteria

Ability to examine the technical quality of a Material is one of the important skills that an educationist must possess. By technical quality is meant the durability of a material, the appropriateness of its graphics, audio, feedback devices, accuracy and authenticity of the pictures therein, the printing formats etc

Self-Check 7.5-2

1. What is Utilization Criteria for emulation CBLM?
2. What is Technical Criteria for emulation CBLM?

Answer Key 1.5-2

1. What is Utilization Criteria for emulation CBLM?

Answer: One of the basic considerations here is to be able to evaluate a learning material and be able to determine if the material is good as a learning device, or an instructional apparatus or for both. The evaluation procedures come under three domains:

1. Before the material is used
2. After the material has been used and
3. During the period of its utilization.

2. What is Technical Criteria for emulation CBLM?

Answer: Ability to examine the technical quality of a Material is one of the important skills that an educationist must possess. By technical quality is meant the durability of a material, the appropriateness of its graphics, audio, feedback devices, accuracy and authenticity of the pictures therein, the printing formats etc

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Job Sheet 1

Job Name: Develop CBLM.



Create a CBLM based on the Specification Sheet

Procedure :

1. Determined Occupation to be develop CBLM.
2. Select UoC for CBLM.
3. Interpreted Unit of competency.
4. Interpreted elements of UoC.
5. Interpreted Learning Outcome of UoC for assessment Criteria.
6. Read Rang of variable to determine develop CBLM.
7. Read Underpinning knowledge for Input Contain for learning outcome.
8. Read underpinning skill for Input job and specification sheet.
9. Interpret Critical aspect of UoC for input practical task.
10. Read specification sheet to develop CBLM
11. After developed CBLM Review CBLM.

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Specification Sheet 1

Specification: Create a CBLM on any Unit of Competencies of your trade using the CBLM Format as given below.

Sample CBLM Format

Cover Page



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This Competency Based Learning Materials on “Developing Competency Based Assessment Tools” under the CBT&A Methodology for Trainers & Assessors, Level-4 qualification is developed based on the national competency standard approved by Bangladesh Technical Education Board (BTEB).

This document is to be used as a key reference point by the competency-based learning materials developers, teachers/trainers/assessors as a base on which to build instructional activities.

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Preface

Education and training for productive employment is vital for economic and social development in Bangladesh. Technical and Vocational Education and Training (TVET) is a tool for productivity enhancement and poverty reduction. TVET sector ensures quality, relevance and access of skills training which meets industry demand and fulfill the requirements of individual for opting gainful and productive employment.

Competency-based learning materials on “Developing Competency Based Assessment Tools” provides overall course guidelines in relation to teaching and learning and act as the key instrument in supporting delivery of standardised formal, non-formal and informal training. It is expected that competency-based learning materials (CBLMs) will serve the purpose of training delivery of different courses maintaining quality as specified in the approved national competency standard for CBT&A Methodology for Trainers & Assessors, Level-4. As it is agreed that any reform in TVET system in Bangladesh should be in line with international trends so as to make graduates from the qualification nationally and internationally competent.

It will be worth noting that the initiatives for development of National Certificate in CBT&A Methodology, Level-4 & Level-5 through review and updating of existing competency standards of trainers & assessors, development of new competency standard for National Certificate for CBT&A Managers and implementers, Level-6 and Competency Based Curriculum development for the above mentioned courses by the Skills 21 – Empowering Citizens for Inclusive and Sustainable Growth Project, ILO. This document is developed by the Standards and Curriculum committee of BTEB under the guidance of International Expert (TVET and Skills Development Specialist) and the National consultant, Skills 21 – Empowering Citizens for Inclusive and Sustainable Growth Project, ILO country Office for Bangladesh.

We appreciate Skills 21 – Empowering Citizens for Inclusive and Sustainable Growth Project, ILO, funded by European Union (EU) for developing competency-based learning materials on “Developing Competency Based Assessment Tools” for CBT&A Methodology for Trainers & Assessors, Level-4 qualification under National Technical and Vocational Qualification Framework (NTVQF).

Chairman
Bangladesh Technical Education Board

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Acronyms

BMET	Bureau of Manpower Employment and Training
BTEB	Bangladesh Technical Education Board
CAD	Course Accreditation Document
CBC	Competency Based Curriculum
CBLMs	Competency Based Learning Materials
CBT	Competency Based Training
CBT&A	Competency Based Training and Assessment
CS	Competency Standard
DTE	Directorate of Technical Education
EU	European Union
ILO	International Labour Organization
LCD	Liquid Cristal Display
MOE	Ministry of Education
MOEWOE	Ministry of Expatriate Welfare and Overseas Employment
MOLE	Ministry of Labour and Employment
NEP	National Education Policy
NGOs	Non-Government Organisations
NSDA	National Skills Development Authority
NSDC	National Skills Development Council
NSDP	National Skills Development Policy
NTVQF	National Technical and Vocational Qualification Framework
OSH	Occupational Safety and Health
PCs	Personal Computers
QAMS	Quality Assurance Manuals
RPL	Recognition of Prior Learning
TSC	Technical School and College
TTC	Technical Training Centre
TTTC	Technical Teachers Training College
TVET	Technical Vocational Education and Training
VET	Vocational Training Institute
VTTI	Vocational Teachers Training Institute

OVERVIEW OF THE MODULE

UoC : Use hand and power tools TRASS1008A1 - Use Hand & Power Tools

Overview

This module comprises five elements (1 to 2), and five (3) learning outcomes derived from the unit of competency TRASS1008A1: **Use hand and power tools**

Upon completion of this module, the trainee must be able to:

1. LO 1
2. LO 2
3. LO 3

After completion of the training, the trainees will be required to demonstrate their competency through the following performance criteria:

PC **1.1**
 1.2.....
 2.1.....
 2.2.....

Contents

This learning package includes the following:

1. LO 1
2. LO 2
3. LO 3

Pre-requisite:

GN1001A1 - Use Basic Mathematical Concepts

GN1002A1 - Apply OSH practices in the workplace

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How to use this competency based learning materials (CBLMs)

The module, “Design and Modify CBT Learning Materials and resources” contains training materials and activities for you to complete. These activities may be completed as part of structured classroom activities or you may be required to work at your own pace. These activities will ask you to complete associated learning and practice activities in order to gain knowledge and skills you need to achieve the learning outcomes.

Review the **Learning Activity** page to understand the sequence of learning activities you will undergo. This page will serve as your road map towards the achievement of competence.

Read the **Information Sheets**. This will give you an understanding of the jobs or tasks you are going to learn how to do. Once you have finished reading the **Information Sheets** complete the questions in the **Self-Check**.

Self-Checks are found after each **Information Sheet**. **Self-Checks** are designed to help you know how you are progressing. If you are unable to answer the questions in the **Self-Check** you will need to re-read the relevant **Information Sheet**. Once you have completed all the questions check your answers by reading the relevant **Answer Keys** found at the end of this module.

Next move on to the **Job Sheets**. **Job Sheets** provide detailed information about *how to do the job* you are being trained in. Some **Job Sheets** will also have a series of **Task Sheets**. These sheets have been designed to introduce you to the job step by step. This is where you will apply the new knowledge you gained by reading the Information Sheets. This is your opportunity to practise the job. You may need to practise the job or activity several times before you become competent.

Specification **sheets**, specifying the details of the job to be performed will be provided where appropriate.

A review of competency is provided on the last page to help remind if all the required assessment criteria have been met. This record is for your own information and guidance and is not an official record of competency

When working through this Module always be aware of your safety and the safety of others in the training room. Should you require assistance or clarification please consult your trainer or facilitator.

When you have satisfactorily completed all the Jobs and/or Tasks outlined in this module, an assessment event will be scheduled to assess if you have achieved competency in the specified learning outcomes. You will then be ready to move onto the next Unit of Competency or Module

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MODULE CONTENT

UNIT OF COMPETENCY: Name Of UoC

MODULE TITLE: Name Of UoC

Module Descriptor:

NOMINAL DURATION:

LEARNING OUTCOMES:

Upon completion of this module, the trainee must be able to:

1. LO 1
2. LO 2
3. LO 3

ASSESSMENT CRITERIA:

- 1.1
- 1.2.....
- 2.1.....
- 2.2.....

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LEARNING OUTCOME 1:

ASSESSMENT CRITERIA

- 1.1
- 1.2
- 1.3

CONTENTS:

- 1
- 2
- 3

CONDITIONS:

Trainees must be provided with the following:

- Handouts or reference materials/books on the above stated contents
- PCs/printers or laptops with internet access
- LCD/Digital Projector and Screen
- Microphones
- Bond paper
- Ball pens/pencils and other office supplies and materials
- Communication resources
- Workplace or simulated environment

METHODOLOGIES:

- Lecture/discussion
- Demonstration/application
- Presentation

ASSESSMENT METHODS:

- Written test
- Demonstration
- Oral Questioning
- Observation with checklist
- Portfolio.

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LEARNING EXPERIENCES

Learning Outcome 1

ESTABLISH EVIDENCE REQUIREMENTS

Learning Activities	Recourses/Special Instructions
Lo 1	Read Information sheet 1.1. Answer Self-check 1.1, refer to answer key 1.1 to check if you have answered the questions correctly.
L O 2	Read the Information Sheet 1.2 Adapt existing resources Answer Self-check 1.2, refer to the answer key to check your answer.
LO 3	Read Information sheet 1.3 Develop new resources Answer Self-check 1.3 Check your answer with Answer key 1.3

Information Sheet 1.1-1

Contain 1

Learning Objective:

After reading this Information Sheet, you must be able to existing learning materials and relevant resources

Self Check sheet 1.1-1

Answer sheet 1.1-1

Job Sheet 1

Specification sheet 1

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Review of Competency

Below is your performance criteria checklist for the module of Use hand and power tools.

Performance Criteria	YES	NO
1.1		
1.2		
1.3		
1.4		
1.5		
2.1		
2.2		
2.3		
2.4		
3.1		
3.2		
3.3		
3.4		
3.5		
3.6		
4.1		
4.2		
4.3		
4.4		

I now feel ready to undertake my formal competency assessment

Signature of trainee:

(Name:)

Date:

References:

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