

Distance Education Specialist Centre (DESC) Course Design Manual



**A comprehensive guide for designing online
courses within the Distance Education
Partnership Programme (DEPP)**

Date of Publication: March 1, 2007

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Table of Contents

Publication Details	Error! Bookmark not defined.
Table of Contents	3
Overview and the purpose of the Course Design Manual (CDM)	5
Who can benefit by using this manual?.....	5
How to use this Course Design Manual (CDM)	7
Good online teaching and learning within the DEPP framework.....	7
Online Learning Instructional Design Model	9
Step 1. Establish Course-level Outcomes	9
Do you know your audience?	10
Task analysis	11
Context analysis.....	11
Instructional System Design (ISD) and learning theories.....	12
Knowledge, Skills and Abilities/ Attitudes (KSA) Analysis.....	14
Writing course-level outcomes	15
Matching outcomes with assessment.....	17
Assessment options for online learning	18
Step 2. Design Course	19
Media choices and multimedia in online teaching and learning	20
Instructional activities and other activity options.....	21
Designing for different types of interaction.....	22
Designing for usability.....	24
Building a community of learners.....	25
Designing for learner support.....	25
Step 3. Develop Content for the Course	26
Rapid prototyping - an iterative process	27
Project Management (PM) and course development.....	27
Labeling of file content	29
Some thoughts about copyright.....	29
Activity deliverables.....	29
Setting up forums, case studies, and small group assignments	32
Migrating content, activities and other deliverables to the LMS	35
Step 4. Test and Evaluate Course	36
5 good reasons to test now!.....	36
A focus on quality - The Complete Course Design Evaluation	37
Implementing a pilot test	37
Decision - Is Course Effective?	38
Quality assurance within DEPP	38
From a students' perspective – The Student Usability Evaluation.....	38
Managing evaluations	38
Step 5. Implement Course	39
The role of the tutor/mentor and tutor/ mentor training.....	39

Student orientation.....	40
Tips for sustainability.....	40
Conclusion	41
Resources.....	42
Books and Materials Referenced	44
Appendices	45

Overview and the purpose of the Course Design Manual (CDM)

The Distance Education Modernization Project (DEMP), established through the Ministry of Education, Sri Lanka seeks to promote the latest generation of distance learning throughout the country. The Distance Education Partnership Programme (DEPP), which operates within the DEMP, has been charged with the responsibility of establishing and promoting an online learning system for institutions engaged in tertiary and higher education in Sri Lanka.

The Distance Education Specialist Centre (DESC) is committed to ensuring excellence, quality and success to partner institutions through many support functions and will provide leadership and good guiding principles for online course design and development. These Post Secondary Partner Institutions (PPI's) are the "enablers" for design, development and delivery of online education in Sri Lanka. Institutions and providers are encouraged to engage a course design team led by an Instructional Designer (ID) or learning specialist who would be guided by the principles covered in this "how to" manual.

Who can benefit by using this manual?

Online course development is essentially a team responsibility, so the following stakeholders may find this course design manual helpful in developing their instructional design skills:

- Instructional designers
- Classroom instructors/professors
- Subject Matter Experts (SME), content creators and publishers
- Administrators who are seeking to launch online education programmes or establish an online educational unit at their institution
- Others seeking to contribute to an online course design team.

Table 1 below lists typical design team member titles, and some key competencies that may help portray a typical team composition for design and development of online course development. Team composition may vary depending on many circumstances and members with various skill sets may assume multiple roles. Some educational units employ a course coordinator, or a programme manager who would perform a more administrative role and team support role.

Table 1

Title or Team Role	Key Skills and Competencies that may be valuable for this role
Instructional Designer (ID) (also referred to as Instructional Technologist, Learning Specialist, or Course Designer)	Imagination/ creativity, communication skills, an ability to synthesize details, basic computer skills, word processing skills, time management, project management, and decision-making skills. Sound knowledge of training and education.
Subject Matter Expert (SME) (this may also be the online teacher, but not necessarily so)	Content knowledge, ability to provide course content and activities for learner-centered education. Word processing skills.
Graphic Artist or Multimedia Specialist	Web and computer graphic artistry
Learning Management System (LMS) Technologist and/ or LMS System Administrator	Basic computer system skills, familiarity with internet usage and/or LMS usage, organizational skills, and help/ support background
Online teacher &/or online tutor/ mentor	Facilitation skills, Basic computer word processing skills, record keeping and administrative skills
Course evaluator(s) (also referred to as Course reviewer, or Course Editor)	Competent in following evaluation tools(s), knowledge of principles of good teaching/learning and copyright.

A full position description for an ID position as provided by DEPP can be found in appendix 1. Descriptions of duties for other team members can be found in appendix 2.

How to use this Course Design Manual (CDM)

The CDM is the legacy document. Copies will be located within the DESC and is available to DESC staff and to PPI personnel for practical use and reference. This manual is a comprehensive resource for novice or seasoned educators who plan on designing simple or complex learning environments on a learning management system (LMS). Many of the strategies, and processes explained in this manual may be transferred on other LMS's, MOODLE is the chosen LMS for DEPP. More information about the LMS can be accessed at the MOODLE website (<http://www.moodle.org>). There may need to be some adjustments that are specific to the virtual learning environment or to the functionality of the LMS if transferring content, and developed strategies on another LMS.

Good online teaching and learning within the DEPP framework

Good teaching and learning is more than merely solid design, effective development and good facilitation of content and activities. A system approach to online design and development incorporates important components and aspects that can lead towards an online educational experience that is greater than the sum of its parts! The DEPP Instructional Design Model has been laid out in a flowchart format in the *Conceptual Framework for Distance Education in Sri Lanka* (Revised September, 2006, page 25). This CDM expands upon the model by adding detail required for designing and developing contextually solid online learning experiences, which are built on a new learning paradigm. Online education has changed the way a teacher would design, develop

and teach. It is strongly recommended that users refer to the model in order to help guide planning and operations at any stage of their processes.



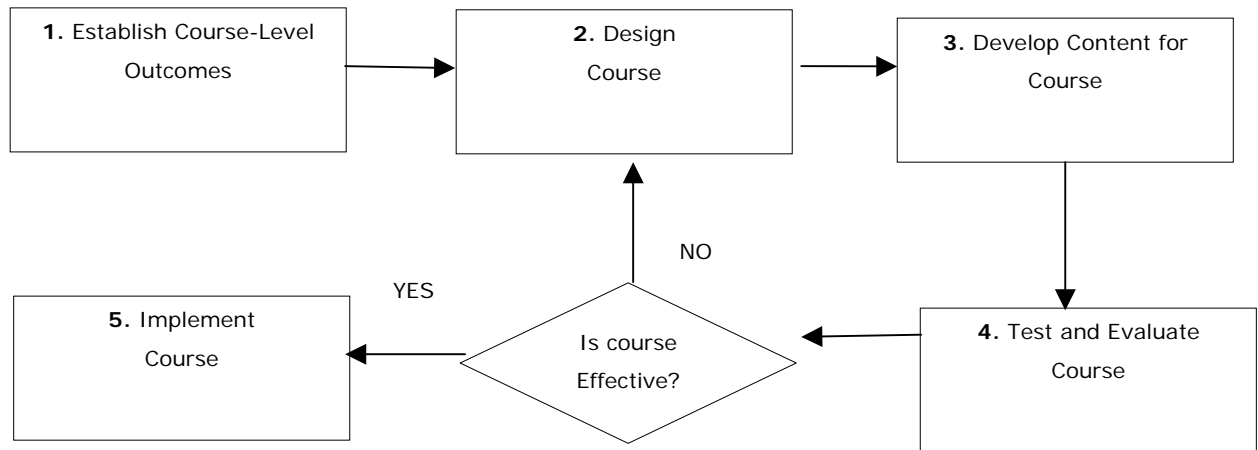
Where is the teacher?



Who is "teaching"?



Online Learning Instructional Design Model



Getting the most from the model requires a dissection of its parts and then a fleshing out or expanding of the phases or sub-components of the model structure in order to provide an explanation and detail of good practice required for process and production. The model diagrammed above is a useful high-level framework. It is vital to use the model, this CDM, current research in instructional design process, and to access your local community of educators and the training programmes that the DEPP office has prepared in order to help you achieve success.

Step 1. Establish Course-level Outcomes

Learner, task and context analysis which help form course-level outcomes are important first steps. Writing course-level outcomes and some insight into learning theories and instructional theoretical foundations are needed to help shape the underpinnings of the design phase. Lesson-level outcomes, and the matching of assessment choices to outcomes are also needed at this stage. Step 1 requires a strong emphasis from the ID and the SME roles.

Do you know your audience?

Learner characteristics have an immense impact on instructional planning. The design team can use learner characteristic data in order to shape learning, make accommodations for learners, for setting a climate, or for supporting discourse that may be interpreted as indirectly related to the learning process. The design team may not have the opportunity to gather updated learner details prior to the planning for online learning so best guesses are acceptable. Characteristics should be assessed and accounted for by any means possible. It is hazardous to make assumptions about Sri Lankan learners however, as online learning via the MOODLE platform is relatively new to most of this audience of learners. The following general areas need to be examined:

Personal characteristics (expectations from online learning, special needs, prior skills/ educational background, barriers to learning, motivational factors)

- Social characteristics (age, demographics, access to multimedia centers (MMC's), workplace characteristics, feelings about computer use, preferences towards working alone or in groups)
- Academic preferences (support aspects, computer literacy characteristics, language literacy)
- Cultural (a consideration of language diversity, a consideration for cultural diversity within the course/programme)

If your course or programme is being offered to a new or a relatively novice audience then a learner inventory, one which has been included in appendix 3 may be useful. The ID, SME or other team members should implement learner inventories to help get a better feel of their learner characteristics at the pre-design phase. It is also essential to realize that learner characteristics are subject to change and they can be

influenced by numerous factors, therefore may limit the accuracy of predicting characteristics.

Task analysis

Content consideration is addressed during this stage. Transmitting information is not instruction, so the task analysis requires the ID to shape SME detailed content information in order to make it teachable and effective for promoting learning. Education tends to focus on knowledge acquisition and understanding concepts, while training is often seen as skill development. DEPP is helping provide learning situations for both educational and training partners, so these online courses should reflect that the tasks might be different. Training and educational opportunities should co-exist within the same programme, but the overall goal of task analysis is to clearly describe what needs to be demonstrated or verified.

Good communication between the ID and the SME is required when trying to portray how content can address the instructional problem. Sequencing of the task and switching between topic exploration and procedural exploration is done when conducting a proper task analysis. Synthesizing this information and accurate record keeping skills are also required at this point. The ID can employ formal gathering methods, or informal ones, but overall it is essential that interpretation of the SME's task analysis be well documented in order to identify facts, procedures, attitudinal notes that are deemed important to the objectives by the SME.

Context analysis

Context analysis broadly defined requires scanning of the learning environment with which to operate. A definition found on the wikipedia website refers to a business example but can be transferred into a course setting by relating the importance of the "internal and external environment for planning"

(http://en.wikipedia.org/wiki/Context_analysis). The ID team should ensure that learners and teachers shape their own online

environment with a local flare and be contextually sensitive in every aspect! Context analysis must be performed and corrected for (if necessary) when using pre-packaged courses or course material from outside Sri Lanka.

Instructional System Design (ISD) and learning theories

There are numerous Instructional System Design (ISD) models that are useful for providing a sound decision-based process for systematic online course design and development.

Analyze, Design, Develop, Implement and Evaluate (ADDIE) is the most popular ISD model. This approach is practical and common, but care should be used so that the team doesn't choose to employ only the ADDIE method for designing every new learning session. There are many other good models and variations of the ADDIE that may be helpful for the task of online instructional development. For more detailed information on this ISD model and others see the resources section.

An ADDIE approach is sound, simple and easy to follow. It requires starting by:

1. Analyzing what is required.
2. Designing the course to meet the needs of the stakeholders.
3. Developing the experience using the outputs of the analysis and design phase.
4. Implementing it.
5. Evaluating the project throughout its creation and implementation.

You can probably see that the steps in the ADDIE model have similarities to the DEPP model for online instructional design and implementation. This is not coincidental. The maturation from an independent or The "Lone Wolf" model towards the Integration model as illustrated in a Conceptual Framework for Distance Education in Sri Lanka has progressed

due to a team effort which leverage the same steps followed by the ADDIE approach.

Learning theorists attempt to explain how people learn. There are many conditions that are crucial to help promote learning in either traditional or online settings. One theory that has been widely endorsed is Robert Gagne's nine conditions for learning. It can be adapted to the online environment if the design can effectively incorporate the internal mental processes that Gagne felt necessary for learning to occur. The table below illustrates the instructional events and the processes that are needed to provide evidence that behaviours will be altered.

Table 2

Instructional Event	Internal Mental Process
1. Gain attention	Stimuli activates receptors
2. Inform learners of objectives	Creates level of expectation for learning
3. Stimulate recall of prior learning	Retrieval and activation of short-term memory
4. Present the content	Selective perception of content
5. Provide "learning guidance"	Semantic encoding for storage long-term memory
6. Elicit performance (practice)	Responds to questions to enhance encoding and verification
7. Provide feedback	Reinforcement and assessment of correct performance

8. Assess performance	Retrieval and reinforcement of content as final evaluation
9. Enhance retention and transfer to the job	Retrieval and generalization of learned skill to new situation

Educators who can consistently practice the basics of these instructional events in order to address cognitive processes may create greater opportunities to foster learning.





Elaboration Theory (Regeiluth, 1983) can also provide designers a foundation for their instructional development. It is based on the premise that instruction should be organized in increasing complexity in order to optimize learning. Elaboration theory also builds on the use of organizers and summaries to help the learner make sense and develop meaning.

The courses you help create will follow a structure, based on these foundational premises. It remains the role of the ID team to incorporate good theoretical foundations in order to remain progressive in the learning field.

It's strongly recommended that you access articles in the resources section in order to further develop your insight into these learning theories and some others that are widely accepted.

Knowledge, Skills and Abilities/ Attitudes (KSA) Analysis

Knowledge, skills and abilities and attitudinal goals should be established to provide accurate statements of what is expected from the learner and how these requirements will be properly assessed. The slides below provide some more insight into using KSA Analysis that should be followed at the course-level and lesson-level outcomes.

 <h3>Outcomes Based Design</h3> <p>Chief Design Question:</p> <p><i>What do you expect a student to be able to DO as a result of learning ?</i></p> <hr/>	 <h3>Outcomes and Performance Based Learning</h3> <ul style="list-style-type: none"> • Learning Outcomes must be defined <u>in advance</u> • Outcomes are assessed regularly • Performance is the key metric of learning <hr/>
 <h3>Learning outcomes</h3> <p>Learning Outcomes state: An expectation that is ...</p> <ul style="list-style-type: none"> • Clearly stated and is ... • Verifiable, testable, confirmable <p>“What do you expect someone to be able to DO as a result of learning?”</p> <hr/>	 <h3>“Performance”</h3> <p>Successful Learning Outcomes:</p> <ol style="list-style-type: none"> 1. Have a result that can be observed 2. Can be tested 3. Can be taught and attained <hr/>

Outcome statements that flow from KSA Analysis and should:

- Focus on learner's behaviour that is to be changed

Serve as guidelines for content, instruction, and evaluation

- Identify specifically what should be learned
- Convey to learners exactly what is to be accomplished (*adapted from AALL, 2007*)



Writing course-level outcomes

NOTE: It is assumed that program-level outcomes and institutional goals are already established when PPI's decide to seek DESC design and development support.



Course-level outcomes articulate the precise learning goals being sought in an objective based learning experience. They then can be distilled into lesson-level outcomes and should be written with performance and desired competencies in mind. Course-level outcomes must be articulated and expressed in a format that is unambiguous and focus on one of three learning domains. These are:

- Cognitive: mental skills (Knowledge)
- Affective: growth in feelings or emotional areas (Attitude)
- Psychomotor: manual or physical skills (Skills)

Benjamin Bloom's (1956) classified action verbs commonly used for writing outcomes for behavioural learning. The verbs that Bloom's taxonomy specifies can help separate outcomes into one of four levels of competency development. A list of action verbs that are useful for each domain is provided in appendix 4. The slides below refer to verbs for the cognitive domain, and psychomotor domains, which involves knowledge and the development of skills.

 <h3>Knowledge Verbs</h3> <ul style="list-style-type: none"> • describe, list, define, explain, label, identify, recall, reword, summarize, quote, name, recognize, give example of, state 	 <h3>Skills Verbs</h3> <ul style="list-style-type: none"> • prepare, modify, display, calculate, apply, arrange, solve, demonstrate, change, organize, open, save, move, find <p>Skills are <i>practised</i></p>
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An important goal for IDs is to try and ensure that higher-level learning is achieved through the use of activities and strategies, and to be sure that instructional development can actually lead to the competency being developed. Assessments must also measure what is required from the objectives. See the slides below for more detail in this area.

 <h3>What Online Assessment will you use?</h3> <ul style="list-style-type: none"> • Assignments, quizzes, forums, case studies and other assessments are done via the LMS template • It's a contrast to physical exam writing and other "pure" offline assessments • includes non-graded self-assessment as a learning tool 	 <h3>Match outcomes to assessment by...</h3> <ul style="list-style-type: none"> • Using non-graded assessments • Using graded assessments • Attempting to achieve higher-level learning
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Writing good learning outcomes requires considerable planning and thought. There are three key parts to writing good learning outcome statements. They should have:

- a measurable action verb
- state what the learner is demonstrating
- state the purpose of the learning

The Course Integrity Evaluation developed by DEPP in the *Course Design Evaluation Manual* can be used at this time to ensure that outcomes, activities and assessments are on target.

Matching outcomes with assessment

Outcomes should be linked to the assessment methods in order to provide the learners with purpose and the teacher with some feedback on their effectiveness in achieving change. If outcomes are overly aggressive in number and competency levels stated, then the offering should have

assessments that reflect these high ideals. In the converse situation, if the outcomes do not articulate higher-level learning then the assessments vehicles should be similar. ID teams should take into consideration that effective strategies would use non-graded assessment, informal assessment, self-assessment and other methods to ensure that the goal of matching student accomplishment with stated outcomes actually occurs. Assessment should be authentic – practical and attempt to measure what the desired outcome.

Assessment options for online learning

There's ample flexibility for assessment choices in online learning settings. However, designers should never let the LMS dictate the variety, number or type of assessments.

The MOODLE platform provides good functionality for implementing many assessment choices and a variety of delivery options that can come from this functionality. A partial list of common assessment choices that can be employed is presented in table 3 below.

Table 3

General Assessment choice	Intended Purpose(s)
Quiz	Graded or non-graded self-assessment
Forum	Graded or non-graded community builder
Assignment	Graded assessment
Combination of the above	Graded or non-graded assessment
Not online assignment	Graded or non-graded assessment
Non online exam	Graded Assessment

Some of these choices exist as part of the platform, and can be found in a drop down menu whereas others can be easily created to serve your

purposes and inserted as either a webpage or by another method. This list should not limit your assessment plans, as it is quite common for assessments to be a mix of many types of the choices provided. It may be prudent to categorize assessments either graded or non-graded activities for assisting with communication. For some workshop slides that expand on writing course objectives and assessments and other topics in this area see Appendix 5.

Step 2. Design Course

Online course design must maintain focus on learner-centeredness in order to leverage the learning system and be responsive to new learning technologies. There numerous methods and strategies available to the design team as they seek to weave content, strategies, resources, activities, and assessment while still encouraging self-direction and learner-centeredness. Designers must also utilize interactive techniques in order to keep the learning environment engaging. A challenge that exists is how to design effectively when faced with continual change. The ability to employ appropriate technological and pedagogical strategies can be one of the most difficult concepts for designers to grapple with.

Striving for a balance between pedagogy and technology is hard work and online education is not merely a place to showcase technological wizardry. The online classroom must also not merely be a location to host lecture content or course notes in a purely didactic fashion. The design team has an important role to play in creating effective and efficient learning that is steeped in good practice for achieving learning goals and for having many aspects of interactivity and new learning paradigms to enhance learning. Pedagogy, "the art and science of being a teacher, generally refers to strategies of instruction, or a style of instruction" (<http://www.wikipedia.org>). Advanced technology in education has been around for some time and can be leveraged by designing offerings that utilize multiple engaging media options and a social environment

provided by the LMS. It is prudent for IDs to explore the palette available to the SME and the other team members in order to encourage an appropriate blend of new technology and new pedagogy. There are many valid reasons for striking a balance between pedagogy and innovation technology. Here are a few:

- learners demand more from learning institutions
- the internet can fulfill pedagogy and technology promise easier by increasing access to resources
- Pedagogy without technology may lack effectiveness
- Technology without pedagogy may lack effectiveness

Media choices and multimedia in online teaching and learning

Media choice for effective learning should not be arbitrarily decided without considering research. There have been many studies indicating which medium can be useful for which type and level of learning, but the debate has not been settled by any means (Clark 1983, Kozma 1981). There are many methods for selecting the media, but this is often dictated by the quality of the media that the SME or design team receives. At first glance, this may seem to have very little merit, but considering the time and cost of creating multimedia it may be a good idea to evaluate the material based on quality. Table 4 provides some insight into these distinctions.

Table 4

Instructional Media	Ideas for Suitable use	Aspect of use
Printed text	Information transmission	Portable, easy to produce
Webpage	Information transmission	Visually appealing, easy access, link to other topics


Audio file	Personalizing a non-descriptive presentation	Low cost, good in combination with other media
Video file	Descriptive transmission and complex task	Expensive to produce, edit and deliver
Multimedia (with interactive participation pieces)	Encourage participation for complex skill development or higher level learning	Expensive to produce, and edit

(adapted from *Theory and Practice of Online Learning (2004)*)

Instructional activities and other activity options

Instructional activities take many forms. They should always be analyzed with the learner, the task and the context in place. Here are a list of instructional activities and their intended purposes.

Some activities may be suitable for self-assessment and do not necessarily have to be part of the assessment criteria for the course (ie: non-graded). The slide below provides a tool for the design team to use as a means of segmenting out activities based on whether they are being used as a graded or non-graded tool. An activity pyramid, which highlights how activities might be for retention, is found in Appendix 6. Note: Regardless of whether activities are graded or not they should have intentions of adding to the educational experience in some manner.

 <p>LMS Common Activities</p> <ul style="list-style-type: none"> • Forum/ Discussions • Chat • glossaries • Group work • Video/audio (option) • Private messages • quizzes • Assignment • Journalling 	<p>The other common activity that is often overlooked is the primary instructional activity of reading content either online or offline. This is student-content interaction which should not be overlooked.</p>
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Providing the activities in a workable format for migration will be covered in more detail in step 3 of the model.

Designing for different types of interaction

Interaction can be classified in four essential types common to most online courses.

Student-to Interface Interaction: Online courses will require learners to interact with the LMS and other software in order to achieve their learning goals. The depth or quality of the interaction may vary depending on the following factors:

- Teacher's goals for interface usage
- Design teams comfort with LMS functionality (is the course designed to use many of the LMS aspects)
- Students familiarity and/or training with software
- Support for this type of interaction

The most common interaction of this nature is the interface components of the LMS. The MMC staff is trained to support the students with this

type of interaction; therefore designing with different components in mind is advisable.

Student-to-Student Interaction: This type of interaction is arguably the most important part of new generation online learning. The online classroom has evolved into an environment where sharing is part of the expectations. Student-to-Student interaction could not be leveraged effectively in correspondence style learning. The depth of this type of interaction in online courses may depend on the following:

- The amount of peer-to-peer learning that is planned to take place
- The community building aspects of an online course
- Student use of content and non-content avenues for communication during their learning experience (chat, forums, email, group work)

Student-to-Content Interaction: Interaction with content is vital, but takes many forms. The most common forms are:

- Content pre-set at the start of the course (books, .pdfs, webpages, links, other multimedia)
- Content developed throughout the course (students' and instructors' reflective comments on forums, emails that react to current events, and other content provided by any of the stakeholders along the way)

Student-Teacher Interaction: In most learning environments the student to teacher interaction usually gets the most attention. This type of interaction provides useful feedback to both parties on how learning is progressing and how prepared students are to handling assessment. Here are a few types that are evident in this new type of learning:

- Notes that are in the form of emails, forums, webpages
- Questions asked and answered during the course in many of the common communication formats via email (public and private), forums, chats

There will often be all four methods of interaction evident in a well-designed course. Team members must realize that effective interaction takes the form of pre-set design and interaction that is left to unfold in an organized manner. This type of interaction is called planned spontaneity!

Designing for usability

Usability is defined as the extent to which an application is learnable and allows users to accomplish specified goals efficiently, effectively, and with a high degree of satisfaction (Miller, 2005). An additional component that should be added to this definition is usefulness; that is, users will not embrace a highly usable application if it fails to contain content or is not presented in a way that is relevant and meaningful to them.

The students' opinions of the features of a finished course address usability. The important items are itemized on the Student Usability Evaluation Form found in the *Course Design Evaluation Manual*. This evaluation is vital for determining how seamless many of the aspects are to the users.

Readability has a lot to do with the artistic layout of the course and the associated pages. Online courses should be of reasonable aesthetic value in order to sustain the learner's attention for with text, printed or visuals presented. There are many aspects of readability that designers should pay heed to:


- Selected font case, style and size
- Alignment and visual cues
- Headings and title pages
- Language level and method of delivery of text (ie: books, webpages, .pdf documents)
- Appropriate linking
- Consistency (adapted from *Writing for the Web* course)

The course team should ensure that changes resulting from the Student Usability Evaluation are implemented in subsequent offerings. A good design team respects students' feedback and works to implement changes that students deem to be important.

Building a community of learners

Online community building can be established in many ways. One could argue that it is the role of the course teacher to set the learning setting and atmosphere. Maybe it is the role of the students. How can the instructional design assist in setting a climate and supporting community?

The design team can use information from the learners' analyses and teachers' attributes to help influence the aspect of rapport and community. It's important to note that the Sri Lanka learners are relatively new to online education; so cultural norms concerning sharing in among learners may take some time and strategic planning. The following factors are paramount to achieving a healthy online community.

 <h3>Virtual Community characteristics</h3> <ul style="list-style-type: none"> • Identities can be created • Exchange support • Produce trust among members • Access to mentors, and resources 	<p>"Peers are important collaborators in learning who share responsibility in developing goals; leading and moderating discussions; forming teams and assuming roles" (<i>Conceptual Framework for Distance Education in Sri Lanka</i>, 2006, p.27)</p>
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Designing for learner support

Online support is vital to online success for both learners and teachers. Learner-centeredness requires linkage to support aspects that have many dimensions. Some of these are academically related while many may not

seem directly related to the subject matter. Here is a list of support features that online students expect;

- Learner support
- Access to online libraries
- Expertise from outside the classroom
- Peer support
- Seamless support for technology

Teachers, designers and institutional leaders must work together to ensure that the burden of the support doesn't get placed on the lead instructor. It's quite common in the early stages of those new to online learning to expect that the teacher will handle all support concerns. The DEPP model provides an important technological support link at the Multimedia Centres (MMC). This support is not intended to replace the many other facets of support mentioned above.

Step 3. Develop Content for the Course

Content, activity and resource development will eventually become the heart of the course material to be deployed on the LMS. The development should be completed during this stage. Project management and copyright clearance aspects also must be addressed during this step. Courses developed by DESC partners will utilize the MOODLE course platform as a means of providing how the student will access the developed learning product and the administrative and facilitation interface within DEPP. This process may require the design team to ensure that they have familiarization and support for their MOODLE platform. Actual interfacing by the student occurs at implementation, but this model encourages testing fully developed content prior to student involvement. The completion of this phase is marked by the migration of structured content to the LMS and shift from design aspects to the tactical engagement for staging of a fully online

course. All members of the design team have major responsibilities during this phase.

Rapid prototyping - an iterative process

Rapid prototyping is the creation of one module or unit of instruction before commencing on further design and development of other units. It requires the module to be fleshed out and tested, before delving into further work. Prototyping is an important demonstration of iterative process and is ideal for providing the design team with results at this point rather than in latter stages in their project. Rapid prototyping is an essential concept that fits into the DEPP framework and in some situations it is an alternative to the ADDIE method. It requires discipline on the part of the design team leader or others to encourage rapid prototyping adoption. Not all projects may be ideal for prototyping. The table below lists some of the benefits and challenges of rapid prototyping.

Table 5

Benefits	Challenges
Saves time in the long run	Requires testing at an early stage
Commonly practiced in other types of development environments	SME may be impatient and wish only to see the final results of their efforts
Can build upon positive results	May create too much of a “formulated” or sterile end product or course

There is a Prototype Evaluation form that is found in the DEPP *Course Design Evaluation Manual* that can be used for testing a sample lesson and for the evaluation of rapid prototyping if it is used.

Project Management (PM) and course development

Project Management (PM) tools and techniques are vital to successful online course development. Unlike course development for the traditional

setting, project management skills are now needed because partners of the development process are required to work together to achieve standards when completing the project. Developing in complete isolation is counter to successful course development and may compromise the time, the cost and the quality of the project. People skills and technical skills are vital for online course creation and the ID must get the most from team members. Appendix 7 expands on why project management skills are important to the lead designer. This document may be helpful for showing which areas an ID may wish to emphasize as they handle multiple or more complex projects. SME's must realize that course development is more than just content development. The team is expected to produce deliverables that include the following:

- Academic content (including outcomes, assessments items and all topic related material)
- Non-academic material (including programme information, community building material, material to back-up existing strategies, support documentation)
- Academic or non-academic Deliverables that the team may create to enhance the experience in either an (multimedia products, new learning strategies like Rich Site Syndication (RSS) feeds)

Here is a list of tracking documents that you may wish to adopt to assist you in the management of complex course deliverables:

- Weekly progress reporting document* (used by DEPP consultants for tracking multiple projects)
- Course deliverable tracking document (used to track a single course)
- Course work plan document* (used to help PPI schedule the inputs for their expected future outputs)

- Communication management document for tracking correspondence and implications of this correspondence both internally (among the team) and externally (among different projects).
- Deliverables spreadsheet outlining responsibilities

This is the ideal time for the design team to create and utilize project management tools that they feel can lead to their goals. Examples* of some of these project management tools can be found in appendix 8.

Labeling of file content

File content should be organized in order to alleviate confusion and to prepare the design team for the migration to the LMS that will soon be occurring. The most efficient way to do this is to design a format that is both sustainable and acceptable to other team members. There are examples of content labeling formats provided in appendix 9.

Some thoughts about copyright

DEPP is not involved in PPI copyright policies, but most organizations should have a copyright policy in place. This may protect the organization from being exposed to unwanted litigation. The design team should ensure that material provided by the SME has been cleared for copyright or is original material of the SME. Copyright infringement can impact many aspects of the course such as text, links, and multimedia.

Activity deliverables

Activities must be devised with intent to ensure that they don't merely provide "busy time" for students. Activities must also be able to be performed, and administered with reasonable ease by teachers and tutors/mentors. It may be good practice to informally monitor students' reactions, and instructors' perceptions of activities that are being delivered for the first time. Here is a more in-depth look at some common online activities and some detail on how they may be of use to course(s).

Case study – Case studies are examples of problem-based learning. They provide an opportunity for students to show higher-level thinking, and to demonstrate group communication skills. Students must extrapolate from the hypothetical to the relevant after reading a scenario.

Design Tips: Keep the case short and compelling. There may be opportunities to assess the dissection of the case. Communication between students is important and not just the final answer should be valued. Case studies can be enhanced with audio or other media.

Practicality: Case studies take some time to prepare, but can be reused many times with modifications. Pre-purchased cases need to be appropriate for the intended audience.

Chat – The chat function provides an area for real-time communication and/or “office hours”. It can be effective for enhancing social presence among students.

Design Tips: The duration of the chat should be short. Plan and structure the topic in advance. Be aware that students from different regions or countries may not be able to participate. Chats are not recommended as a graded assessment unless a grading guideline or rubric has been well planned.

Practicalities: Chat requires considerable support, and may require student orientation or training. MOODLE chats are ideal if the group size is under ten in number.

Forum – Discussion forums are the most popular non-real time (asynchronous) communication tools in online learning. They are ideal for peer-to-peer learning and for allowing learners to gather thoughts and feel comfortable before expressing them.

Design Tips: plan the discussion forum questions in advance or have students moderate a forum. Don’t reward students for frivolous comments in the forums and careful guidance is needed to ensure that forums achieve their intended purposes.

Practicalities: A forum is superior to email for eliciting class comments, as students can follow the discussion threads over a period of time. Forums often “die” if they are left unattended or continue for too long.

Large Group Assignment – Assignments can take the format of many of the above-mentioned activities or can be newly constructed from a newly conceived concept. Activities among large group members (usually over 10 students or more) can build rapport and identify areas of difficulty without focusing on those students who may be in need.

Design Tips: identify needs in the situation and insert this type of activity if needed. An example would be an article review, in order to assess comprehension or other skills at a cursory level of the audience.

Practicalities: Large groups assignments can be hard to administer and may lose effectiveness if done too often. May be a good tool for non-graded activities such as group building, for summarizing subject matter, or for shifting focus away from individuals who may be successful at dominating small groups.

Small Group Assignment - These take many formats, but are intended for groups under ten individuals. It's very common for small group work to use forums in order to help facilitate activity described in the group assignment.

Design Tips: Care must be taken for writing clear instructions and grading requirements (if necessary) as students may develop some anxiety due to the task.

Practicalities: Design teams should decide whether assignments are going to be released early for students to view in advance. It's easier and better for group building to keep learners in one group during the entire course.

Quiz – Quizzes or online testing is an effective way to leverage the technology for a standard assessment. Multiple choice and true or false options are available and the LMS provides excellent functionality for

release times, randomization of questions and feedback options on quiz answers.

Design Tips: An extensive quiz bank of questions is needed in order to reduce the chance of students compromising the assessment.

Practicalities: Support mechanisms should be in place during the assessment. Good opportunities and training for using the quiz tool should be provided.

There are many other activities that may suit. Some other activities that can be easily implemented on the MOODLE LMS are:

Survey (for informal assessment)

- Journal or Blog (for reflective writing)

There is also an option for some activities to be inserted by adding a web page on the MOODLE rather than through the activity drop-down menu.

Setting up forums, case studies, and small group assignments

Forums are found in the “add an activity...” in the drop down menu on the course shell.

Steps for setting up a forum:

Work with the SME to ensure that you have provided clear instructions and expectations for what is required from the participants during the forum period.

1. Ensure that you have clear grading criteria (if necessary).
2. Go to the “add a forum...” on the drop down menu.

3. Provide a distinctive name and instructions for the forum.

Provide instructions to the tutor to either lead with the first discussion posting or instructions for others to post a new discussion topic.

Case studies (use web page or assignment link) can be added by choosing the drop down menu, which is titled "Add a new resource..."

Steps for setting up a case study:

Ensure that the SME has written clear instructions, expectations and grading criteria for the case. If the case requires a discussion forum, then the instructions stated above should be followed.

Provide support instructions for having the technician place the students in groups for working on the case for joining the case discussion forum.

Fill in all the text boxes for adding a web page (see below).

Small Group Assignments can be loaded either from the “add a resource...” or “add an activity...” drop down menu.

Steps for setting up an assignment:

If using “add a resource...” drop down menu see the instructions above. For the ‘add a resource...” menu choose “add an assignment” and provide clear instructions and expectations. There will be functionality for due dates and assignment types.

1. Students should be given instructions on how to label and upload their completed assignments. The location will be provided on the course template.



2. The ID team should give clear feedback and support standards

The MOODLE text book or website (www.MOODLE.org). provides a more comprehensive set of instructions and access to support for setting up activities.

Migrating content, activities and other deliverables to the LMS

Content migration shouldn't take a lot of time for the skilled LMS administrator to perform, but it's important to use good organizational skills and LMS functionality to alleviate problems should maintenance be required at later stages or redevelopment. Table 6 below lists content aspects that are commonly used and notes for migration that may assist during the migration to MOODLE procedures.

Table 6

aspect	Tip for migration
Administration	It may be a good practice to organize settings, roles, groups and file areas at the onset.
Course lecture notes	Use "files" in the administration area for best organization.
Forum topic	Use "forums" in the activity area for best organization of forums and for standardization of instructions.

Quiz	Quiz questions can be arranged in categories for easier editing and maintenance.
Assignment	Assignments that use the “upload assignment” aspect can be linked to the grade book.
Images	Images should be stored in separate folder in the file area

Note: For a more detailed insight into MOODLE migration see the resources section of this manual or visit (www.MOODLE.org).

Step 4. Test and Evaluate Course

There should be no mistaking the importance of testing and evaluating online courses and the design/development processes before “going live”. Evaluations are fundamental to improvements in design, development, which influence teaching and learning and the many other aspects of the experience. Multiple types of tests can be used, and many different stakeholders can become involved. DEPP’s evaluation process provides an excellent opportunity for other stakeholders to become involved in this procedure.

5 good reasons to test now!

Testing is important and has been mentioned at many of the other stages, but it is crucial at this stage. Testing allows for the design team to determine whether iterative processes are still required at this time and how to plan for change. Here are five good reasons for testing:

1. External evaluation and pilot testing can reaffirm the teams’ success.
2. This is the first time that all the course aspects are stable.

3. Provides a break from the design and development.
4. Provides an opportunity to stage a delivery of a course without impacting fee-paying students.
5. Important feedback can ignite new ideas from the team.

Testing doesn't take need to take a lot of time if the correct allocation of resources to guide the process is used.

A focus on quality - The Complete Course Design Evaluation

The following course aspects should be evaluated:

- Pre-course area (or non-content area) this includes – teacher information, welcome message, assignment details, information about expectations, etc.
- Navigation and structural integrity
- Lesson level assessments this includes – lesson-level outcomes, activities, self-assessment instruments, etc.
- Design aspects – this includes assignments, text presentation, media aspects, audio and visual, copyright and consistency

All of these facets are addressed in the Complete Course Design Evaluation form, which is found in *Course Design Evaluation Manual*.

The assessment form should be completed as thoroughly as possible and returned to the ID for his/her directives. It is always important to have some responsible for action and follow-up with the PPI. The PPI is responsible for securing external evaluators (those not connected with the institution or organization) in order to provide unbiased feedback.

Implementing a pilot test

Pilot testing can be done with somewhere between 5 and 50 potential students or current participants. Care should be taken so that the process of pilot testing doesn't become administratively untenable or that

it's too small a sample to gain useful feedback. Feedback can be gathered at this stage informally or formally by using the Student Usability Evaluation (details provided later in this manual) in order to check some of the most notable features. A copy of this evaluation tool is found in the *Course Design Evaluation Manual*.

Decision - Is Course Effective?

Testing is considered a “dry run” and may replicate the potential students’ perspective of the experience. A DEPP online course evaluation tool has been designed to assist with the task of student feedback. Other stakeholders may also wish to be included when determining if the course “hits the mark”. Quality assurance is vital towards sustainability, and teaching and learning success. Every key area that has been designed and developed can benefit from feedback and lead to the re-design.

Quality assurance within DEPP

Quality initiatives require vigilance in order to be effective. Some of the initial funding of this programme requires rigorous quality assurance and process auditing in order to be accepted practice. Design teams should view quality initiatives as standard procedures and practices, which save time that, would have led to redevelopment and as a guide to increase student satisfaction.

From a students’ perspective – The Student Usability Evaluation

The final evaluation form in the *Course Design Evaluation Manual* is the Student Usability Evaluation. The pilot offering or control group should complete this task. It’s important to gather data and use this information before implementation.

Managing evaluations

The management of the evaluation processes can be an arduous chore if performed without proper tools. An evaluation-tracking document found

in appendix 10 that may help with this task. It's also good practice to provide evaluators with the following:

- The most recent copy of the appropriate evaluation form(s)
- Direct access to a contact should assistance be required
- Clear instructions and expectations
- URL, username and password (if needed)
- An approximation of the time that is required for completing the evaluation form(s)
- A note of thank you for their time

After the evaluations have been completed it's vital to get feedback to the appropriate parties in a timely fashion. Matching grant funds are tied to some of the evaluations so that there needs to be clear expectations of quality in order to satisfy this requirement.

Step 5. Implement Course

Implementation is the final step in the model. It would be futile for DEPP partners to go through the many exhaustive steps of design/ development and testing unless it is extremely likely that implementation will take place. A backup implementation plan and/or modification to existing plans may also be needed. Implementation may be subjected to many factors that can derail this step. Any factors that impact implementation adversely should be considered serious. Student, course instructor, and tutor readiness are also an important aspect of this phase. By step 5 it should become obvious that the course design process really doesn't stop here! All educators know the value of evaluating their efforts and striving to make the next offering even better. Good design teams do whatever it takes to get buy in from administration to support short-term and long-term goals.

The role of the tutor/mentor and tutor/ mentor training

Facilitation is a distinctly different skill than design and development expertise that this CDM has been highlighting thus far. This manual will

not go into detail regarding mentoring, coaching and facilitation, but it is important to note that the role of tutor/mentor can be shaped through design/development. Training is also paramount in order for tutors/mentors to understand how online learning has shifted the teaching role. There are DEPP online and face-to-face blended courses that can assist with this undertaking.

Student orientation

Student training is crucial to a successful student experience, especially in a country where online learning is fairly new! DEPP has created a *Student Orientation Training Program*, so that PPI's and MMC staff is equipped to positively influence the students' first experiences. Designers should feel encouraged that this type of training also supports their plans for building community and rapport on the activity level. Forums, for example, may display differently depending on the number of participants, but training and exposure to the interface before the course starts can alleviate concerns before they may become detrimental to the experience. Designers should also be aware that students' support at the MMC would be monitored in order to achieve high levels in support and customer service.

Tips for sustainability

All aspects of design, development, delivery and evaluation must be viewed through a lens of sustainability. A designer should be concerned about unwarranted administrative requests that may affect their job. For example, a design team may be asked by the SME or co-ordinator to continually rewrite a forum question or an assignment without substantiated feedback. This may look simple enough, but it can lead to changes in other aspects of the offering. ID's should be cautious not to fall into a trap where redesign work may spiral out of control. Here are a few tips that may be of assistance.

- Find out in advance the extent of detail of requests

- Ask senior administrators and other stakeholders “why” changes are being requested
- Gather student feedback to substantiate change
- Encourage administrative record keeping by the online teacher to substantiate change
- Use aspects of MOODLE that can assist with record keeping or data collection (ie: grade book, survey tools)

Design leaders should also try to achieve team harmony in order to leverage good working relationships from projects. Sometimes continual change among team members can adversely affect team productivity.

Conclusion

This course design manual is intended to be a comprehensive resource, and must continually evolve to meet this objective. The structure of this document follows the DEPP model, which is excellent for leading designers through the complex process of online course design and development. There are numerous references to other DEPP produced documents at each stage of the model. Use these resources in order to save time and maintain standards. The online resources mentioned may change, but it's expected that all participants collaborate to keep these resources as current and useful to other users. The skill set of design teams in Sri Lanka will undoubtedly increase as experience helps this development. Collaboration among PPI design units and the input of the DESC staff are strongly encouraged in order to flesh out relevant practices and lessons learned through the use of this CDM. The CDM or the model itself isn't meant to be static, so suggestions and constructive criticism is welcome and would be appreciated as experiences help shape Sri Lanka's national online learning system.

Resources

Barriers to distance training and education.

http://www.usdla.org/html/journal/JAN02_Issue/article01.html

Bloom's Taxonomy of verbs

<http://www.coun.uvic.ca/learn/program/hndouts/bloom.html>

<http://chiron.valdosta.edu/whuitt/col/cogsys/bloom.html>

<http://www.businessballs.com/bloomstaxonomyoflearningdomains.htm>

Case studies

<http://www.elearnmag.org/subpage.cfm?section=tutorials&article=11-1>

<http://www.wordbiz.com/archive/writecasestudy.shtml>

http://www.elearnmag.org/subpage.cfm?section=case_studies&article=35-1

Context in education - Commonwealth of Learning website

<http://www.col.org/colweb/site/cache/offonce/pid/3095;jsessionid=C67BC4F2CA9E439D0A5AFEEC3A781B0F>

Differences between education and training

<http://www.airpower.maxwell.af.mil/airchronicles/aureview/1985/jan-feb/kline.html>

Distinguishing between Education and Training

<http://www.school-for-champions.com/training/difference.htm>

http://www.clomedia.com/content/templates/clo_article.asp?articleid=1240&zoneid=101

Facilitating online conferencing

<http://www.learner.org/courses/rfts/om5web.htm>

<http://classweb.gmu.edu/ndabbagh/Resources/Resources2/taskanalysis2.htm>

Gagne's (9 Events of instruction)

http://www.e-learningguru.com/articles/art3_3.htm

Interface

<http://www.edst.educ.ubc.ca>

Instructional System Design (ISD)

<http://www.nwlink.com/~donclark/hrd/sat.html>

<http://www.nwlink.com/~donclark/hrd/sat1.html#why>

http://www.e-learningguru.com/articles/art2_1.htm

Learning Theories

<http://ide.ed.psu.edu/IDDE/tree/treef.asp?start=54>

<http://suedstudent.syr.edu/~ebarrett/ide621/cognitive.htm>

Matching outcomes and assessments

<http://www.ncrel.org/sdrs/areas/issues/methods/assment/as700.htm>

Media Choices

<http://www.coe.tamu.edu/~mbastian/Clark-Kozma/CK-Debate.htm#Who>

http://staff.ed.uiuc.edu/esecaras/ES/draft9_1/Multimedia.html

<http://www.coe.tamu.edu/~mbastian/Clark-Kozma/CK-Issues.htm>

Knowledge, Skill, Assessment

<http://www.aallnet.org/prodev/outcomes.asp>

<http://www.cdc.gov/hrmo/ksahowto.htm>

Project Management

<http://it.coe.uga.edu/studio/seminars/paperplanes.html>

Quality of online courses

<http://www.imd.macewan.ca/imd/content.php?contentid=36>

Quiz in MOODLE

<http://webpub.alleggheny.edu/employee/j/jfadden/wordpress/?p=299>

Rapid Prototyping

<http://it.coe.uga.edu/studio/seminars/paperplanes.html>

Reigeluth (Elaboration Theory)

<http://tip.psychology.org/reigelut.html>

Student support evaluation (faculty-teaching) evaluation questionnaire

<http://moosurvey.kcc.hawaii.edu/e-learn/eval/faq.html>

Usability

<http://www.learningcircuits.org/2005/jan2005/miller.htm>

Writing Outcomes

<http://chiron.valdosta.edu/whuitt/col/plan/behobj.html>

Books and Materials Referenced

Anderson, Terry & Elloumi, Fathi (Ed.) (2004). Theory and Practice of Online Learning. Athabasca University. (Available under Creative Commons license)

Cole, Jason (2005). Using MOODLE: Teaching with the popular open source course management system. O'Reilly.

Gagne, Robert (1965). The Conditions of Learning
Course Design Evaluation Manual (February 2007)

Conceptual Framework for Distance Education in Sri Lanka (Revised September 2006)

DEPP Course Design Workshops 1 - 4

Online Course Design Using Moodle – Workshop 6 (June 2006)

Appendices

Appendix 1:

Job Description for an Instructional Designer (ID)

The Instructional Designer will work in the Course Development Unit (CDU) alongside the Distance Education Partnership Programme (DEPP) staff, providing hands-on support to institutions to prepare their programmes for distance education delivery. The ID will assist in the course development, review, evaluation, and piloting of the project's pilot programmes as well as new programmes. He/she will also contribute towards the production and testing of manuals, protocols and procedures that will eventually serve as standards of operation for the Distance Education Specialist Centre (DESC).

The individual is expected to have skills and abilities in the areas of both instructional design and educational technology.

Duties and Responsibilities

Assist institutions in the instructional design and development process, particularly in the conversion of existing or development of new courses using learning outcomes and pedagogically sound, interactive, student-centred learning activities

Recommend to institutions the most appropriate media and approaches to achieve the programme goals.

Assist institutions to identify and locate web-based resources and enhancements for their programmes.

Participate as instructional design specialist in programme development teams with client organizations.

Assist in the evaluation and piloting of pilot programmes and new programmes particularly with regard to the use of pedagogically sound curriculum.

Provide assistance to institutions in the revision and updating of programmes.

Maintain accurate records of CDU activities related to time and costs associated with the design and development of distance education materials.

As ID, provide advice and information to DESC clients.

Assist to develop training programmes in instructional design, web writing, use of LMS and other approved software.

Requirements for the Position (Qualifications and Experience)

Postgraduate Diploma in IT for Education OR Postgraduate Diploma in Distance Education





Master of Education, with Educational Technology as a subject

Master of Education in Teacher Education, with Educational Technology as a subject

This description has been developed by DEPP staff.

Appendix 2:

Typical job duties/roles of members of an Instructional Design team

<div data-bbox="231 383 319 443"></div> <div data-bbox="367 405 592 436">Instructor/Facilitator</div> <ul style="list-style-type: none"> • Interacts with students and guides discourse • Builds community with content • Co-ordinates course requirements • Administration of grades 	<div data-bbox="844 336 932 396"></div> <div data-bbox="997 351 1276 389">Subject Matter Expert</div> <ul style="list-style-type: none"> • Researches and provides core knowledge for course • Writes or selects primary content • Works closely with ID designer
<div data-bbox="231 931 319 992"></div> <div data-bbox="375 927 580 990">Requirements for Technologist</div> <ul style="list-style-type: none"> • Expert in multiple learning media • Fundamentals of HTML, web technologies • Fully skilled in online tools • Expert in LMS features • Respect for designer, SME, instructor 	<div data-bbox="844 884 932 945"></div> <div data-bbox="1007 904 1358 943">Instructional Designer (ID)</div> <ul style="list-style-type: none"> • Helps create outcomes and activities • Recommends course structures, assessment tools, delivery approaches • Works closely with subject matter expert • Provide project management skills

Slides adapted from Workshop 1

Appendix 3:

Example of an online learner inventory

1. My need to take this course now is:

- ☐ high—I need it immediately for a job, degree or other reason
- ☐ moderate—I could take it later at a provider site or substitute another course
- ☐ low—it is not very important at this time

2. Having face-to-face interaction with my instructors and other students is:

- ☐ not particularly important to me
- ☐ somewhat important to me
- ☐ very important to me

3. I would classify myself as someone who:

- ☐ often gets things done ahead of time
- ☐ needs reminding to get things done on time
- ☐ puts things off until the last minute or doesn't complete them

4. Classroom discussion is:

- ☐ rarely helpful to me
- ☐ sometimes helpful to me
- ☐ almost always helpful to me

5. When an instructor hands out directions for an assignment, I prefer:

- ☐ figuring out the instructions myself

- ☐ trying to follow directions on my own but am willing to ask for help as needed
- ☐ having the instructions explained to me

6. I need faculty feedback on my assignments:

- ☐ within a few weeks, so I can review what I did
- ☐ within a few days, or I forget what I did
- ☐ right away or I get frustrated

7. Considering my professional and personal schedule, the amount of time I have to work on an online course is:

- ☐ more than for a course at a provider site
- ☐ the same as for a class at a provider site
- ☐ less than for a class at a provider site

8. Coming to a provider site on a regular basis for a class is:

- ☐ extremely difficult for me (because of work, family, or personal reasons)
- ☐ somewhat difficult, but I can probably rearrange priorities in order to attend
- ☐ not difficult

9. I would classify my reading ability as:

- ☐ good—I usually understand what I read without help
- ☐ average—I sometimes need help to understand what I read
- ☐ below average—I often need help to understand what I read

10. When I am asked to use technologies such as e-mail, the Internet, or new software:

- ☐ I look forward to learning new skills
- ☐ I feel apprehensive but try it anyway
- ☐ I put it off or try to avoid it

This learner inventory was adapted from a questionnaire developed by the Extended Learning Institute of Northern Virginia Community College.

Appendix 4:

Domains of learning

Each category or 'level' behaviour descriptions gives examples of activity to be trained (verbs which describe the activity to be trained or measured at each level)

1 Knowledge recall or recognise information multiple-choice test, recount facts or statistics, recall a process, rules, definitions; quote law or procedure arrange, define, describe, label, list, memorise, recognise, relate, reproduce, select, state

2 Comprehension understand meaning, re-state data in one's own words, interpret, extrapolate, translate explain or interpret meaning from a given scenario or statement, suggest treatment, reaction or solution to given problem, create examples or metaphors explain, reiterate, reword, critique, classify, summarise, illustrate, translate, review, report, discuss, re-write, estimate, interpret, theorise, paraphrase, reference, example

3 Application use or apply knowledge, put theory into practice, use knowledge in response to real circumstances put a theory into practical effect, demonstrate, solve a problem, manage an activity use, apply, discover, manage, execute, solve, produce, implement, construct, change, prepare, conduct, perform, react, respond, role-play

4 Analysis interpret elements, organizational principles, structure, construction, internal relationships; quality, reliability of individual components identify constituent parts and functions of a process or concept, or de-construct a methodology or process, making qualitative assessment of elements, relationships, values and effects; measure requirements or needs analyse, break down, catalogue, compare, quantify, measure, test, examine, experiment, relate, graph, diagram, plot, extrapolate, value, divide

5 Synthesis (create/build) develop new unique structures, systems, models, approaches, ideas; creative thinking, operations develop plans or procedures, design solutions, integrate methods, resources, ideas, parts; create teams or new approaches, write protocols or contingencies develop, plan, build, create, design, organise, revise, formulate, propose, establish, assemble, integrate, re-arrange, modify

6 Evaluation assess effectiveness of whole concepts, in relation to values, outputs, efficacy, viability; critical thinking, strategic comparison and review; judgement relating to external criteria review strategic options or plans in terms of efficacy, return on investment or cost-effectiveness, practicability; assess sustainability; perform a [SWOT](#) analysis in relation to alternatives; produce a financial justification for a proposition or venture, calculate the effects of a plan or strategy; perform a detailed and costed risk analysis with recommendations and justifications review, justify, assess, present a case for, defend, report on, investigate, direct, appraise, argue, project-manage

adapted from:

<http://www.businessballs.com/bloomstaxonomyoflearningdomains.htm>

Appendix 5:

Title Slide from workshop (Feb 28/07, Morituwa, Sri Lanka)



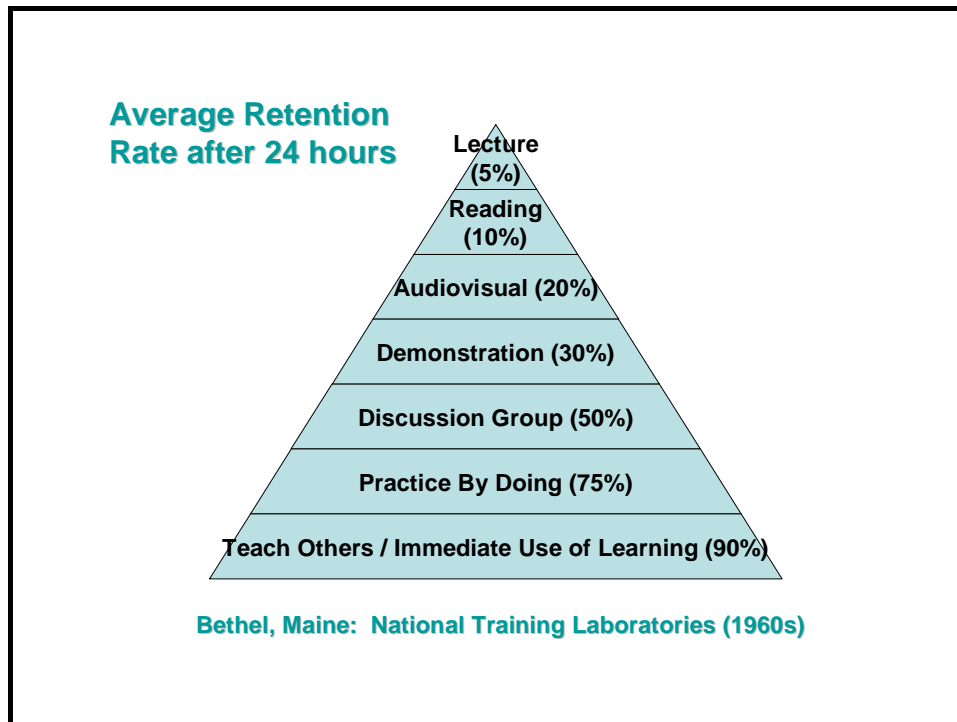
“Course outcomes, assessments and activities for YOUR online course!”



All Workshop slides are available on disc titled DEPP Workshop Course outcomes, assessments and activities for YOUR online course.

Appendix 6:

Activity choices chart and retention information



adapted from DEPP course design workshop 4

Appendix 7:

Why Project Management is important to ID

Project managers must focus on three dimensions of project success. Simply put, project success means completing all project deliverables on **time**, within **budget**, and to a level of **quality** that is acceptable to sponsors and stakeholders. The project manager must keep the team's attention focused on achieving these broad goals.

Planning is everything -- and ongoing. On one thing all PM texts and authorities agree: The single most important activity that project managers engage in is planning -- detailed, systematic, team-involved plans are the only foundation for project success. And when real-world events conspire to change the plan, project managers must make a new one to reflect the changes. So planning and replanning must be a way of life for project managers.

Project managers must feel, and transmit to their team members, a sense of urgency. Because projects are finite endeavors with limited time, money, and other resources available, they must be kept moving toward completion. Since most team members have lots of other priorities, it's up to the project manager to keep their attention on project deliverables and deadlines. Regular status checks, meetings, and reminders are essential.

Successful projects use a time-tested, proven project life cycle. We know what works. Models such as the standard ISD model and others described in this text can help ensure that professional standards and best practices are built into our project plans. Not only do these models typically support quality, they help to minimize rework. So when time or budget pressures seem to encourage taking short cuts, it's up to the project manager to identify and defend the best project life cycle for the job.

All project deliverables and all project activities must be visualized and communicated in vivid detail. In short, the project manager and project team must early on create a tangible picture of the finished deliverables in the minds of everyone involved so that all effort is focused in the same direction. Avoid vague descriptions at all costs; spell it out, picture it, prototype it, and make sure everyone agrees to it.

Deliverables must evolve gradually, in successive approximations. It simply costs too much and risks too much time spent in rework to jump in with both feet and begin building all project deliverables. Build a little at a time, obtain incremental reviews and approvals, and maintain a controlled evolution.

Projects require clear approvals and sign-off by sponsors. Clear approval points, accompanied by formal sign-off by sponsors, SMEs, and other key stakeholders, should be demarcation points in the evolution of project deliverables. It's this simple: anyone who has the power to reject or to demand revision of deliverables after they are complete must be required to examine and approve them as they are being built.

Project success is correlated with thorough analyses of the need for project deliverables. Our research has shown that when a project results in deliverables that are designed to meet a thoroughly documented need, then there is a greater likelihood of project success. So managers should insist that there is a documented business need for the project before they agree to consume organizational resources in completing it.

Project managers must fight for time to do things right. In our work with project managers we often hear this complaint: "We always seem to have time to do the project over; I just wish we had taken the time to do it right in the first place!" Projects must have available enough time to "do it right the first time." And project managers must fight for this time by demonstrating to sponsors and top managers why it's necessary and how time spent will result in quality deliverables.

Project manager responsibility must be matched by equivalent authority.

It's not enough to be held responsible for project outcomes; project managers must ask for and obtain enough authority to execute their responsibilities. Specifically, managers must have the authority to acquire and coordinate resources, request and receive SME cooperation, and make appropriate, binding decisions which have an impact on the success of the project.

Project sponsors and stakeholders must be active participants, not passive customers. Most project sponsors and stakeholders rightfully demand the authority to approve project deliverables, either wholly or in part. Along with this authority comes the responsibility to be an active participant in the early stages of the project (helping to define deliverables), to complete reviews of interim deliverables in a timely fashion (keeping the project moving), and to help expedite the project manager's access to SMEs, members of the target audience, and essential documentation.

Projects typically must be sold, and resold. There are times when the project manager must function as salesperson to maintain the commitment of stakeholders and sponsors. With project plans in hand, project managers may need to periodically remind people about the business need that is being met and that their contributions are essential to help meet this need.

Project managers should acquire the best people they can and then do whatever it takes to keep the garbage out of their way. By acquiring the best people -- the most skilled, the most experienced, the best qualified -- the project manager can often compensate for too little time or money or other project constraints. Project managers should serve as an advocate for these valuable team members, helping to protect them from outside interruptions and helping them acquire the tools and working conditions necessary to apply their talents.

Top management must actively set priorities. In today's leaner, self-managing organizations, it is not uncommon for project team members to be expected to play active roles on many project teams at the same time. Ultimately, there comes a time when resources are stretched to their limits and there are simply too many projects to be completed successfully. In response, some organizations have established a Project Office comprised of top managers from all departments to act as a clearinghouse for projects and project requests. The Project Office reviews the organization's overall mission and strategies, establishes criteria for project selection and funding, monitors resource workloads, and determines which projects are of high enough priority to be approved. In this way top management provides the leadership necessary to prevent multi-project log jams.

Adapted from online article What's Project Portfolio Management (PPM) and Why Should Project Managers Care About It?)

Appendix 9:

DEPP Quick Guide to Naming Course Templates

Each template will be given to you as a **Read-Only** Microsoft Word .doc file. ALWAYS ask your course co-ordinator for the latest template version. Open the template in Microsoft Word. See

1. Confirm you are using the right template. Do not confuse the Week Overview template and the Lesson template.
2. Create or Find the folder labelled with your course ID.
For example: "BBM1101 Online Course"
3. Immediately save your .doc file to the folder using the exact naming conventions listed below. Use all lowercase. Use a leading zero before week numbers. E.g. week03, week09, week12.

Here are the available templates and how to rename them accurately

Course Outline Template

File name: **courseID.outline.MMDD.doc**

Save as: bbm1101.outline.feb18.doc

Weekly Outline Template

File name: **courseID.weekNN.outline.MMDD.doc**

Save as: bbm1101.week07.outline.feb18.doc

Lesson Outline Template

File name: **courseID.weekNN.lessonN.outline.MMDD.doc**

Save as: bbm1101.week02.lesson3.outline.jan23.doc

Quiz Source File (Hot Potatoes)

Save as: **courseID.weekNN.quizN.MMDD.jqz**

Example: bbm1101.week07.quiz5.may02.jqz

Quiz Instructions Template

File name: **courseID.weekNN.quizN.instructions.MMDD.doc**

Save as: bbm1101.week07.quiz5.instructions.may02.doc

Discussion Forum Template

File name: **courseID.weekNN.discussionN.MMDD.doc**

Save as: bbm1101.week07.discussion2.may02.doc

Assignment Requirements and Instructions Template

File name: **courseID.weekNN.assignmentN.instructions.MMDD.doc**

Save as: bbm1101.week12.assignment1.instructions.apr18.doc

Study Resource Documents(s) Template

File name: **courseID.weekNN.lessonN.studyN.MMDD.doc**

Save as: bbm1101.week04.lesson3.study02.nov01.doc

adapted from DEPP workshop 4

Appendix 10:

Headings in an evaluation tracking document (used for tracking feedback and changes)

Course	Teacher	Evaluator	Date for return	Date for changes to be completed	Administered by