GLOBAL UNIVERSITY

GU INSTRUCTIONAL DESIGN

THEORY AND PRACTICE

THINK*academic*FRIENDLY.

Global University Instructional Design: Theory and Practice

A Bit of History

Let's go back almost 50 years The Assemblies of God, from the time of its founding, has had a strong missions emphasis. As the denomination moved into the second half of the 20th century, the necessity for discipleship and ministerial education was recognized. There was a pervasive need for the education and training of believers and Christian leaders, particularly in areas where traditional schools were not available or affordable.

The year 1967 saw the launching of the International Correspondence Institute (hereafter, ICI). ICI was founded under the auspices of the Assemblies of God Division of Foreign Missions to provide evangelism and discipleship courses and Bachelor of Arts degrees to students residing outside the United States. ICI began in Springfield, Missouri, but, it was decided that the new institution should be based outside the United States.

Several cities were considered for suitability as the ICI International Headquarters. In 1972, ICI established its operations in Brussels, Belgium. The curriculum rationale for ICI educational programs was written by the founding president, Dr. George Flattery. Other key leaders in the formative stages of the ICI program were Dr. Norman Anderson, and Dr. John Carter.

Curriculum

The curriculum of a school is determined by its values and is the means by which the educational objectives are attained. In the ICI curriculum, a biblical worldview would underlie all studies. The ICI curriculum was founded on the understanding that there are content requirements, student maturation needs, and the need for practical ministry training. Instruction would recognize various cognitive styles, but would of necessity, involve what we now refer to as distance education. Learning would involve discovery, as opposed to stimulus response or rote memory. Learning would be staged, and appropriately paced. The goal would be mastery of the subject matter at an attainable level.

Objectives

Also in the 1950s and '60s the concept of objectives was coming to the forefront of public thinking. There had always been goals and directions for activities, but the notion of formal objectives was being widely communicated. In 1955, George Odiorne published a best seller entitled *Management by Objectives* and his suggestions caught on. The use of objectives to guide achievement was almost too easy. If you want somebody to do something, you sit down and write an objective. In the objective you tell them in so many words what you want them to do. Then give them some instruction and

enablement. Finally, you tell them know what you will accept as evidence that the objective has been attained.

The use of objectives was particularly effective in education. For centuries and decades, students had to guess at what the professor was trying to communicate. In point of fact, what the professor included on the examination was a high-stakes summary of what a professor really thought was important. Usually one had to take at least one examination to get an idea of how to process the voluminous material that was delivered, most often by the lecture method. It is easy to see the value to the student of written objectives. Instead of making the student guess what is important, the student is informed up front. Does this make learning just too easy? No, and presently we shall see why.

Behavioral Objectives

It is all very well to have objectives, but we can readily see that objectives must be written in such a way that their achievement can be measured. One might propose, for example, that the student understand history, appreciate fine art, or learn to love mathematics. These are laudable goals, but there is no way to measure their achievement. In order to *measure* the achievement of an objective, it must be stated in behavioral terms. There must be some observable or measurable outcomes. To make this happen, the verb in a behavioral objective must require this outcome. This brings us to the components of a behavioral objective:

1. A behavioral objective is a statement identifying the category of things that are to be completed, learned, or accomplished.
2. This statement must include a verb that requires an observable or measurable behavior.
3. The objective states or implies the conditions under which achievement of the objective is to be measured: What is allowed and what is not allowed; how much time you have, materials that may be used, etc.

Ideally, when the objective is written, an assessment item should also be written. The assessment item will include a statement of what will be accepted as evidence that the objective has been achieved.

Here's an example of a behavioral objective, and its assessment item:
(In practice, this objective would be one of several objectives that may be assessed using various question formats. The assessment is to be completed without assistance from others—study materials, notes, and other helps are not allowed.)

   Objective: Identify in sequential order the books of the Old Testament.

The assessment for this objective—the evidence that the objective has been achieved—could be the requirement that the student write, in order, the titles of all the books in the Old Testament.

Alternatively, the assessment could take the form of a multiple choice question in which the student is required to select a list of five correctly sequenced book titles. If the student can correctly identify a correctly sequenced list of five books (and reject the incorrectly sequenced books), this is accepted as evidence that the objective has been achieved. Example:

> Which of the following is a correctly sequenced list of five Old Testament books?
> a. Genesis, Malachi, Psalms, Ezra, Proverbs
> b. Isaiah, Jeremiah, Lamentations, Ezekiel, Daniel
> c. Deuteronomy, Numbers, Leviticus, Exodus, Genesis
> d. Joshua, Judges, Jeremiah, Joel.

Varieties of objectives

We readily recognize that the example of a behavioral objective (given above) requires knowledge gained by memorization, but little more than that. The sample objective does not require any knowledge about the authors, or the genre of literature, or the content of any of the books. It is important therefore that we expand out list of objectives to include additional items of knowledge.

Ideally, the student should be able to comprehend the meaning of biblical teaching, and apply this knowledge in practical ways. The student should also be able to perform analyses of the various forms of biblical writing and be able to synthesize new forms of biblically based teaching. Finally, the student should be able to appraise and defend the teaching of the bible. He should be able to evaluate the importance or suitability of biblical literature for various purposes.

What we are considering here is a taxonomy of cognitive objectives. We refer to these a objectives in the cognitive domain. This taxonomy, as presented below was developed by educational psychologist Benjamin Bloom in 1956. Modifications of this taxonomy have been made over the years, and other taxonomies have been offered. However, the 1956 taxonomy will serve our present purposes.
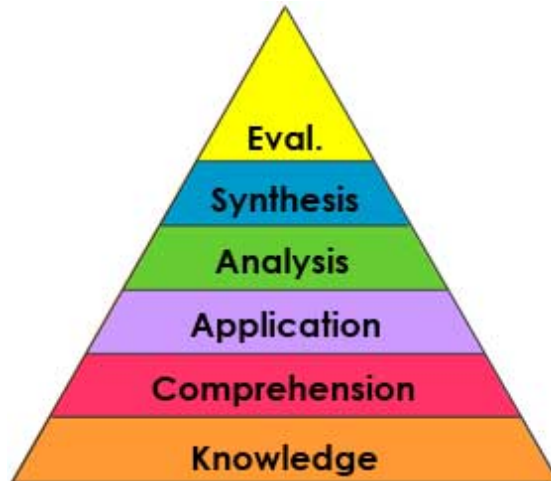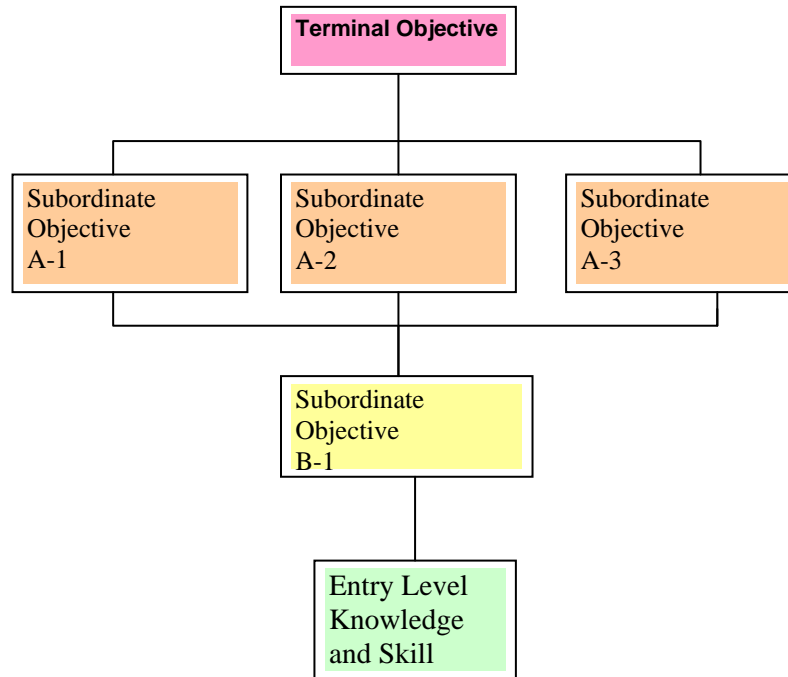
Hierarchies of Objectives

When we plan instruction, we establish broad objectives (sometimes called goals, or terminal objectives) to which the learning is directed. We recognize that a certain amount of knowledge is necessary even to begin the learning process. Many objectives—called subordinate objectives— are required to achieve the complex goals that represent the desired achievement for a whole course of study. And, to be sure, some information, and the effort required to learn it, are not necessary. How shall we select the material that must be learned in order to achieve the goals of the course? And how shall we order these learning experiences so that learning will be effective and efficient?

For answers to these questions, we turn to the field of educational psychology and, to the work of Robert Gagné and others who developed the concept that objectives should be carefully selected, and listed in hierarchies that could be validated in terms of learning. Gagné posited that learning experiences must be

1. Identified, subject to later modification,
2. Stated in terms of observable behavior,
3. Ordered according to a valid learning sequence.

The result was a hierarchy of objectives that look something like this:

Terminal Objective

Subordinate Objective A-1   Subordinate Objective A-2   Subordinate Objective A-3

Subordinate Objective B-1

Entry Level Knowledge and Skill

Gagné reasoned that if the necessary learning experiences are identified and correctly ordered, and sufficient instruction and practice is provided at each level, anybody can learn anything. What this example hierarchy "says" is that certain kinds of knowledge and skill are necessary to begin the study. Given these entry level abilities, one can achieve objective B-1. If, and only if, one achieves objective B-1, is it possible to achieve objectives A-1, A-2, and A-3. If these three objectives are achieved, it is possible to achieve the terminal objective. If this hierarchy is validated—i.e., shown to work in practice—both teacher and student can have confidence that their labors will be successful.

 Of course, there are motivational factors that may affect learning at any level. There may be more than one valid hierarchy of objectives. Given these provisos, however, Gagné's work has been generally validated. Gagné would say to the student: Here is your terminal objective, your goal. Here is the entry level knowledge/skill that is required to start the study. These are the learning experiences and the order of learning experiences. If you learn these things in this order, you can achieve the terminal objective. Please note also those learning experiences that are not required are conspicuously absent.

The ICI-GU Instructional Design

It was recognized early on that planning for the ICI programs must include a consideration of the needs of people, the learning and growth process, and a careful selection of content. This process resulted in a series of educational objectives that

guided the sequencing of learning opportunities. This is the essence of curriculum development. Attention was then given to the design and organization of instructional and evaluative materials.   Thus the educational objectives were determined by values and would be attained through curriculum.

The instructional design employed by ICI-GU, from the time of its founding to the present, has been based on a sincere attempt to provide, at a distance, the learning experiences that would be obtained in a classroom. This is summarized in the phrase "The professor is in the book." Study Guides were written that included the content that had been identified by the curriculum planners.

Study Guides and Independent Study Texts

The text of the study guides was written in such a way that students could easily imagine themselves in the classroom of a master teacher. Content was supported by graphics, and reinforced by brief excursions: discussion questions and various kinds of exercises. These came to be known as interactions. Their purpose was to approximate the interaction of a classroom professor with the students.

Within each study guide the objectives for the whole course, the terminal objectives, were listed following a brief introduction. The content was written to sequence the objectives in a manner approximating the hierarchies of objectives proposed by Gagné. Every attempt was made to present the instruction in a logical order and to provide sufficient enablement in the text. Course objectives are commonly described in different ways. An objective may describe desired student outcomes, that is, the behavior the student should display by the end of the course. All objectives should facilitate measurable student outcomes.

The Formative Evaluation System

Much of the general public, and many in the profession of teaching, tend to regard evaluation as the means by which a student is graded. The computation of a final course grade is, however, a small part of the purpose of evaluation. In fact, the evaluation system is an integral part of the instruction. With this understanding, a GU course includes, at the end of each lesson, a brief self-test. The student has the opportunity to answer questions related to a lesson, and check the answers against a key. This aids the student in the appraisal of his or her achievement.

The questions of the self-test are keyed to the various objectives. If the student answers a question incorrectly, he/she may review the objective that is related to the question. This process is referred to as *objective referenced testing*, or *criterion referenced testing*. This method is used in the development of all ICI/GU objective examinations. Assessment items should always be developed from objectives.

When the student has completed a unit of study – usually three or four lessons – a Unit Progress Examination is made available. The Unit Progress Evaluation (the "UPE")

includes questions from the whole unit, and each question is based on an objective. The answer key for the UPE is provided in a Student Packet so that each student may grade the exam.

The design of the UPE is such that questions are similar but not identical to those that the student will encounter on the final examination. Each student is encouraged to determine not only the score on the whole UPE. The student can determine which questions were answered incorrectly and also see which objectives these questions related to. The student can then restudy those objectives in the text and improve their understanding. The student can also ask the professor or another faculty member to answer the questions they may have.

We should point out that the questions and exercises in the text, and the self-tests, and the unit progress examinations are all self-graded, and are not grade weighted. This is to say that these assessments are not included in the final composite score for the course. They are designed to inform the student of his/her progress and aid the learning process. For this reason, we refer to he interactions, the self-tests, and the UPEs as the *Formative Evaluation System.*

The Summative Evaluation System

Objective Final Examination. There are, and must be, certain elements of the evaluation system that contribute numerically to the course grade. There is, for all students, a comprehensive objective final examination. The final examination is similar but not identical to the self-tests and unit examinations. Computer programming has enabled the development of evaluative instruments that can be analyzed and continually improved. Sophisticated analyses are now carried out routinely that would have been prohibitively difficult in the 1960s through the 1980s.

Course Projects Each student must complete a project. Course projects are designed to give student the opportunity to give evidence of knowledge and understandings required by the course objectives. It is expected that the project will be completed in a scholarly manner. It is required that at least three references be made to the scholarly literature. The student is aided in the search for pertinent information by "Course Research Guides" that are prepared under the direction of the Director of Library Services. The library staff also provides instruction to students and faculty in the use of Course Guides. This is an essential feature of continuing course development.

Collateral Reading Assignments (CRA) Most undergraduate courses require a collateral reading text, supported by a written report. The text is selected by the professor of record and/or the faculty in the various course areas. The student is required to give evidence that he/she has read the collateral text. Various questions must be answered in order to demonstrate knowledge, comprehension and the acquisition of higher level cognitive learning.

Service Learning Requirement (SLR)   Each student is required to complete a service learning requirement. The SLR provides the student with the opportunity to apply the principles of the course, and respond to the objectives, in the form of service to others. The SLR is evaluated by the faculty as Satisfactory or Unsatisfactory. The student must complete a satisfactory SLR before the other grade-weighted course components are computed.

Success with Distance Education

Distance learning has special challenges. You many never see or meet the teacher. You won't have classmates. You won't have a campus full of people studying the same thing. If you have the opportunity to get together with a study group, you may be able to have the best of both worlds: carefully prepared study materials, classmates, and class facilitator.

But whether you study alone and on your own schedule, or with a group, you can be successful. Most GU students who complete their courses pass them with acceptable grades. The average grade for all undergraduate Global University courses is 78 percent. Here are a few tips and suggestions that will help you to be successful:

1. Set Goals.

> At the beginning of a new course, look through the materials, and obtain a general awareness of what the whole course includes/requires.
>
> GU courses are divided into units, lessons, and lists of objectives to be achieved. You will soon recognize the way in which GU courses are presented.
>
> The instructional design of the course will help you to be successful. That is an understood objective of all GU courses.
>
> You might not have time to do a full lesson in one night, so plan for how much you can do, then stick to it until you're done.

2. Establish a Regular Study/Learning Schedule

> Determine what time is best for you to study. Try to study at that time every day.
>
> If possible, have a dedicated study place with all the supplies you might need.
>
> Pace yourself. There's a reason it takes several years to graduate from traditional university. You're in this to learn, not just to get a certificate, so make sure you're learning, not just racing through the materials.

3. Talk About It

Tell people what you're doing. You're more likely to stick to a course if your co-worker knows you're doing it.

If possible, ask someone to review your work before you submit it.

4. Join a Study Group

A Global University study group is an excellent setting in which to complete your GU course.

Each study group will have its ground rules, but basically the group provides structure and interaction with others who are taking GU courses.

Typically there will be a course facilitator who can help direct your efforts and point you in the right direction.

5. Understand and enhance your learning style

Look for real-world situations and examples of what you're learning about.

Put things into practice as early as possible.

Do not hesitate to send questions to the professor of record for the course or other faculty members at the GU international office who will assist you.