LEARNING OUTCOMES

LEARNING ACHIEVED BY THE END OF A COURSE OR PROGRAM

KNOWLEDGE – SKILLS – ATTITUDES

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Learning Outcomes

Definition	Guidelines for Writing LO	Practice
Characteristics	Components of LO	Critique
Background	LO Checklist	

What is meant by Learning Outcomes?

Think for a moment about a course or training session with which you are currently involved. Identify one skill that you think would be essential to know or do by the end of this learning period. If you were able to do this, then you are beginning to construct a learning outcome.

Definition of Learning Outcomes

Learning outcomes are statements that describe significant and essential learning that learners have achieved, and can reliably demonstrate at the end of a course or program. In other words, learning outcomes identify what the learner will know and be able to do by the end of a course or program.

Spady, (1994) , an educational researcher who spearheaded the development of outcomes based education, suggests that the ability *demonstrate* learning is the key point. This demonstration of learning involves a performance of some kind in order to show *significant* learning, or learning that matters. He claims that significant content is essential, but that content alone is insufficient as an outcome. Rather, knowledge of content must be manifested through a demonstration process of some kind.

An outcome statement that incorporates this knowledge within a performance demonstration might include:

- The learner will have demonstrated the ability to make engine repairs on a variety of automobiles.

  In the above statement, the ability to make engine repairs implies that the person has the requisite knowledge to do so.

Performance statements include higher level thinking skills as well as psychomotor skills.

Consider the following learning outcome statement:
The learner will have demonstrated the ability to analyze engines and make decisions regarding required repairs for a variety of automobiles.

Spady, also addresses the context or performance setting in which the performance demonstration occurs. He suggests a range of performance contexts from that of demonstrations of classroom learning to those which involve living successfully in the larger society. Thus, his highest level outcomes refer to generic skills such as the preparation of learners to be problem solvers, planners, creators, learners and thinkers, communicators etc., regardless of subject areas studied.

Learning outcomes refer to observable and measurable
- *knowledge*
- *skills*
- *attitudes*

EXAMPLES OF LEARNING OUTCOMES STATEMENTS

The successful student has reliably demonstrated the ability to:
     Administer medications according to legal guidelines
     Make pricing decisions using relevant cost and profitability factor

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Characteristics of Learning Outcomes Statements

Learning outcomes should:

- reflect broad conceptual knowledge and adaptive vocational and generic skills
- reflect essential knowledge, skills or attitudes;
- focus on *results* of the learning experiences;
- reflect the desired end of the learning experience, not the means or the process;
- represent the *minimum* performances that must be achieved to successfully complete a course or program;
- answer the question, "Why should a student take this course anyway?"

Learning outcomes statements may be considered to be exit behaviors.

Background and Context for Development of Learning Outcomes

You may have seen learning outcomes statements on various college course outlines, including this course. Or, you may have seen learning outcomes statements which reflect your children's expected level of learning at a certain grade level.

Learning outcomes reflect a movement toward *outcomes based learning (OBL)* in elementary, secondary, and post secondary educational systems throughout North America, and beyond. This

movement is, in turn, influenced by public pressure to ensure a greater accountability and consistency within educational systems. Through the creation of outcomes statements, and the evaluation of learner performance in relation to those statements, it is believed by some that a more accountable educational system will result.

Because learning outcomes focus on the end result of learning, regardless of how or where that learning occurred, their development serves to offer the potential for increased access to learning opportunities through prior learning assessment.

Outcomes-based education is thought to provide greater:

> * consistency - in course offerings across the educational system

> * accountability - expectations for learning are clearly stated, and frequent assessment processes help both teacher and student identify progress toward meeting the outcomes

> * accessibility - clearly defined outcomes enable learners to demonstrate achievement of those outcomes through prior learning assessment processes

Global Influences

In the 1990's, global economies and work place requirements shifted toward broad based, transferable skills. For example, the Conference Board of Canada lists the following skills as essential for the workplace:

- ability to work in teams
- effective communication
- ability to solve problems

Local Influences

A comprehensive review of the mandate of the Ontario college system in the early 1990's recommended that program standards be developed as a means of ensuring better quality programming. The creation of program standards was also seen as a way of enabling learners to receive recognition for previous learning when transferring from one college program to another. (Vision 2000, 1992)

As a consequence of this decision, a body called the College Standards and Accreditation Committee (CSAC) was established to ensure standards and consistency across colleges throughout the province. This body was given the authority to approve program standards which are the program learning outcomes for all diploma vocational community college programs. (Diploma college programs are three years in length.)

It further developed a set of generic skill standards or outcomes which all community college graduates of diploma programs are expected to demonstrate upon graduation.

Individual colleges were given the responsibility for establishing Learning Outcomes for General Educational courses, and for individual courses within college programs.

College Context

In the college system, learning outcomes are written at the:

- PROGRAM level
- COURSE level

LEARNING OUTCOMES in the college system may express

- Vocational Skills
- Generic Skills
- General Education

Guidelines for Writing Course Learning Outcomes

Learning Outcomes written at the *course* level should:

- state clear expectations - learners know what they have to do to demonstrate that they have achieved the learning outcomes;
- represent culminating performances of learning and achievement; (meaning the highest stage of development, or exit, end performance)

- describe performances that are *significant*, *essential*, and *verifiable;* (meaning that performances can be verified or observed in some way and that they represent more than one small aspect of behavior; this also means that the performance is considered to be essential for success in the course)
- preferably state only ONE performance per outcome;
- refer to learning that is *transferable;* (meaning that the learning can readily be transferred from a class to a work place environment, or from one workplace environment to another, etc.)
- not dictate curriculum content; (meaning that there could be a number of different ways to achieve the outcome.)
- reflect the overriding principles of equity and fairness and accommodate the needs of diverse learners.
- represent the <u>minimal </u>acceptable level of performance that a student needs to demonstrate in order to be considered successful.

(Source: Guidelines to the Development of Standards of Achievement through Learning Outcomes, 1994. College Standards and Accreditation Committee)

Overview of Learning Outcomes Structure in Community Colleges

GLOBAL INFLUENCES
WORKPLACE REQUIREMENTS

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DEVELOPMENT OF PROGRAM LEARNING OUTCOMES
Essential knowledge, skills and attitudes required by program graduates

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OVERALL CURRICULUM DESIGN
Mapping of content and course sequence to provide required vocational, general education and generic skill outcomes

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COURSE LEARNING OUTCOMES
Faculty developed learning outcomes for individual courses within a program

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INSTRUCTIONAL OBJECTIVES
Essential knowledge, skills and attitudes required for each unit of instruction within a course

Anatomy of Learning Outcomes

Learning Outcome statements may be broken down into three main components:

- an *action word* that identifies the performance to be demonstrated;

- a *learning statement* that specifies what learning will be demonstrated in the performance;

- a broad statement of the *criterion* or standard for acceptable performance.

For example:

ACTION WORD (performance)	LEARNING STATEMENT (the learning)	CRITERION (the conditions of the performance demonstration)
Applies	principles of asepsis	when executing psychomotor skills
Produces	documents	using word processing equipment
Analyzes	global and environmental factors	in terms of their effects on people

(Source for categories: Developing Learning Outcomes Self-Study Guide, Humbler College of Applied Arts and Technology, March, 1996)

Performance Elements

Learning outcomes statements can be supported by the inclusion of *performance elements.* Performance elements or indicators as they are sometimes called, provide a more specific picture of an ability. They define and clarify the level and quality of performance necessary to meet the requirements of the learning outcome. In effect, the elements are indicators of the means by which the learner will proceed to satisfactory performance of the learning outcome. That is, they help to address the question, "What would you accept as evidence that a student has achieved a certain level, or is in the process of achieving the outcome?

(Source: Generic Skills Learning Outcomes for Two and Three Year Programs in Ontario's Colleges of Applied Arts and Technology. The College Standards and Accreditation Council, May, 1995)

For example:

Suppose you have the learning outcome:

Applies analytical skills when addressing contemporary social issues.

Some performance elements might include:

- identifies assumptions underlying various points of view
- presents a cogent argument with supporting evidence.

Verbs to avoid when writing learning outcomes include:

Appreciate	Enjoy
Know	Realize
Be aware of	Perceive

What do these verbs have in common, and why do you think it is recommended that you avoid using them when writing learning outcomes?

Some common verbs that I have seen included in learning outcomes include the following:

Use	Develop	Analyze	Express	Evaluate
Organize	Create	Write	Plan	Apply
Produce	Implement	Compile	Incorporate	Construct

CHECKLIST FOR INTEGRATION OF LEARNING OUTCOMES

- I know what the learning outcomes are for my course and program.
- I have designed learning activities and resources which reflect the learning outcomes.
- I have designed assessment/evaluation strategies with feedback opportunities for students. The evaluation strategies reflect the learning outcomes.
- I have negotiated with students to provide some choice in the means of reaching the outcomes.
  (Adapted from the York Region Board of Education OBL Planning Model)
- Course learning outcomes have been developed in consultation with program advisory committees, and groups of other faculty; not by individuals working in isolation. Since learning outcomes reflect the present and anticipated future needs of society, their development requires discussion and input from a variety of sources
- Course learning outcomes dovetail with program learning outcomes for the program in which I am working
- Some learning outcome statements may receive more weighting or importance within a course than others. This differential course weighting would be reflected in the percentage of a course grade attached to each outcome.

Program Learning Outcomes

- describe the essential knowledge, skills and attitudes required by graduates of the program

Course Learning Outcomes

- reflect what the faculty and the community collectively identify as the essential knowledge, skills and attitudes required by practitioners in the subject area

Instructional Objectives

- describe in detail the behaviors that students will be able to perform at the conclusion of a unit of instruction such as a class, and the conditions and criteria which determine the acceptable level of performance.

Reflect for a moment on the implications of learning outcomes development for teaching and learning. What does such a movement suggest in relation to teachers and learners? Do you find yourself basically in agreement with some of the underlying assumptions? What questions or concerns do you have related to the introduction of learning outcomes?

Prior Learning Assessment - What's that got to do with me?

Have you ever participated in a course or program in which you realized that you already had knowledge and skill related to most or all of the course? In other words, the course was really a repetition of learning you had done elsewhere. Perhaps this course was required for you to continue on in a program, but in reality, participation was not a good use of your time and energy. If so, then you would have been a candidate for a PLA process.

Prior learning assessment (PLA) is a process which uses a variety of tools to help learners reflect on, identify, describe and *demonstrate* past learning which has been acquired through study, work and other life experiences. PLA allows the evaluation of past learning against established academic standards so that credit can be awarded. If you work in a postsecondary educational system, you may participate in this process by:
- identifying a learner who would benefit from a PLA process
- assess a learner who has requested a PLA process

Background and Context

In 1993, the Ontario Government announced implementation of prior learning assessment for adult learners in the Colleges of Applied Arts and Technology. The underlying assumption related to PLA is that learning is a lifelong process and can occur in meaningful ways outside of formal

educational institutions. This learning is transferable to an academic environment and should be formally recognized. Some common terms associated with PLA:

- *Challenge Process:*
  A method of assessment administered by faculty to measure an individual's learning achievement in reference to the essential requirements of a course. It measures *demonstrated* learning for the purpose of awarding credit without requiring enrolment in that course. Types of challenges could include tests, oral interview, demonstration of skills, production of art, reports etc.

- *Experiential Learning:*
  Learning which has been acquired through self-directed study, paid and voluntary work, non college courses and other life experiences, and which is not recognized through transfer of credit mechanisms.

- *College Level Learning:*
  Learning accomplishments which are equivalent to the knowledge, skills and values expected from a college course.

- *Portfolio:*
  A formally presented document which describes learning achieved from prior experience, articulates the learning towards specific college course requirements, and shows validation or proof through third party documentation and other forms of evidence.

(Source: Algonquin College in publication: "Prior Learning Assessment: Guidelines for Effective Practices" Prepared by Prior Learning Assessment Office, March, 1995.)

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