

Bethel College

Prior Learning Assessment (PLA)

PRIOR LEARNING ASSESSMENT TABLE OF CONTENTS

Definition.....	3-7
Standards.....	8
Procedures.....	9-12
Forms.....	13-16
Essays.....	16-28
Thinking About Thinking	28-33
Learning to Learn.....	34-38

PRIOR LEARNING ASSESSMENT (PLA)

WHAT IS IT AND WHAT WILL IT DO FOR ME?

Prior Learning Assessment (PLA) is the process used by Bethel College to validate college level learning obtained outside the college classroom. This learning could include professional training and/or lifelong learning experiences used in conjunction with course work to help you reach your educational goals. It utilizes the knowledge you have already gained through life and it can save time and money.

Since Prior Learning Assessment is an active process, you must first reflect and think critically about your life learning experience to determine what you have learned and whether the learning is college level. After a time of reflection, you can decide how you want to validate this knowledge and whether it can be used as credit toward your degree.

HOW CAN I VALIDATE MY LEARNING EXPERIENCE?

At Bethel College you can validate your experiential learning in three ways:

1. WRITTEN DOCUMENTATION: A maximum of 30 credits may be earned through this method.

Structured Learning

This is structured college-equivalent learning for which academic credit has not been awarded. It is comprised of continuing education courses, professional workshops, company-sponsored seminars, apprenticeships, licensing preparation and other structured instructional experiences for which verification can be obtained and significant learning can be demonstrated. Credit is not given for attendance but only upon verification of college level learning which demonstrates a balance between theory and practice.

Self-directed Learning

This learning may come from professional positions, volunteer work, civic responsibilities, travel and other significant life developments. Verification is accomplished through papers, which are presented to appropriate faculty evaluators in related disciplines. A balance between theory and practice must also be demonstrated.

A one-hour course (**Prior Learning Assessment**) is a prerequisite for earning credit for both Structured and Self-Directed Learning.

2. EXAMINATIONS: The exam taken must be an equivalent to a course in the Bethel College catalog.

Internally Developed Examinations

If an external exam is not available, a Bethel College faculty member can prepare a challenge exam in his/her area of expertise.

Externally Developed Examinations

College credit may be earned through APP, CLEP, DANTES and Regents Examinations.

ADVANCED PLACEMENT PROGRAM (APP):

Tests in 13 academic subjects, usually taken by high school seniors for advanced placement in college courses, but they may be accepted by some colleges as part of prior learning assessment.

For information: Advanced Placement Program
Educational Testing Service
Princeton, New Jersey 08541
(609) 771-7300

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP):

The five general exams cover materials taught in courses that most students take as requirements in the first two years of college: English composition, or English composition with essay; humanities; mathematics; natural science; social sciences and history. The subject examinations cover material taught in undergraduate courses in history, political science, psychology, economics, sociology, foreign language, composition and literature, science, mathematics and business. (See rubric for scores and credit hours.)

For information: CLEP
P.O. Box 661
Princeton, NJ 08541-6601
(215) 750-8420

Bethel College is an approved site for the CLEP examination. If you would like to schedule a time to take an exam, you can call the School of Adult Studies at (574) 807-7329 or (800) 422-4251.

DEFENSE ACTIVITY FOR NON-TRADITIONAL EDUCATION SUPPORT (DANTES):

DANTES credit by examination tests are in subject areas somewhat different from CLEP tests, but they are constructed on similar principles, covering what would usually be learned in a semester-long college course. The DANTES program includes 49 tests in physical sciences, social sciences, business, applied technologies, foreign languages, humanities and mathematics.

For information: DANTES Program Office
Educational Testing Service
Princeton, NJ 08541-0001
(215) 750-8328

REGENTS COLLEGE EXAMINATIONS:

The Regents Exams are administered at the Sylvan Technology Centers. They cover a variety of academic areas such as: the arts and sciences, business, education, and nursing.

For information: Regents College Examinations
7 Columbia Circle
Albany, NY 12203-5159
(888) 723-9267
www.regents.edu

3. EVALUATED PROGRAMS: Transcripts may be obtained from the appropriate agency.

ACE: College credit is awarded based on recommendations by the American Council on Education, the National Program on Noncollegiate Sponsored Instruction (PONSI)

MILITARY: Guide to the Evaluation of Educational Experiences in the Armed Services.

HOW MANY CREDITS MAY I EARN AND HOW IS IT TRANSCRIBED?

You can earn up to 30 credits toward a bachelor's degree and 15 credits toward an associate degree through the written documentation process. Credit earned from examinations and evaluated programs are not included within the 30 or 15 credit hour limit. Once credit is awarded, the assistant registrar will record the credit hours on your academic record. No grade is given for either written documentation or credit exams. As a result, your grade point average is not affected.

Credit exams are limited to equivalent courses in the Bethel College catalog, so this will naturally limit the number of credits which can be earned through testing.

WHERE CAN PLA CREDIT BE APPLIED?

You can use Prior Learning credit for all **Non-Traditional** degree programs. It can be applied to the general studies requirement, the elective base, and the major. However, if you are a part of a cohort program, you will be required to take each module with the cohort so you cannot petition out of any module. If you are validating a specific course, you must produce a copy of the Bethel syllabus and meet all of the course objectives. For non specific courses your learning must have a balance of theory and practical application. The learning must be college level.

HOW MUCH DOES IT COST?

If you are petitioning for credit through the written documentation process, the cost is \$60 per credit. Since you are paying for the evaluation not the credit, the fee is required whether you receive academic credit or not.

The cost for each CLEP exam is \$72.00, and you can pay by check or credit card. The check for the CLEP exam must be made out to CLEP. The test center fee is \$15.00 per exam, and you can pay with check payable to Bethel College or with exact cash. Both fees are due when the test is administered. If you pass the exam, the cost for transcription is \$10 per credit hour. This will be billed to your account at the time the credit is transcribed. For all other standardized exams, you will be charged the transcription cost of \$10 per credit hour when official test scores are submitted to the College.

For internal credit exams, you must complete a drop/add form which is available in the School of Adult Studies or the Registrar's office. The professor who is administering the exam must sign the form, and you will need to go to the Student Financial Services Office to pay a \$45 per credit fee before taking the exam.

If you transfer credit from evaluated programs, there is no charge. All that is needed is an official transcript from the organization which did the evaluation.

HOW MUCH CREDIT CAN I EARN FROM CLEP EXAMS?

EXAMINATION	BETHEL EQUIVALENT	MINIMUM SCORE	CREDIT GIVEN
Business			
Accounting Principles	ACCT 203	50	3
Business Law-Intro	BADM 221	50	3
Info. System & Comp. App	ITSC120	50	3
Management, Principals	BADM 321	50	3
Marketing, Principals	BADM 322	50	3
Composition and Literature			
American Literature	LIT 221	50	3
Analyzing & Interpreting Literature	LIT Elective	50	3
College Composition	ENGL 101	50	3
English Literature	LIT 231	50	3
Humanities	FA 170	50	3
Foreign Languages			
French	FREN 131	50	3
	FREN 132	62	3
German	GER 141	50	3
	GER 142	63	3
Spanish	SPAN 161 & 162	50	6
	SPAN 261	66	9
History and Social Sciences			
American Government	SS305	50	3
Educational Psychology, Introduction	Elective	50	3
History of United States I	HIST 242	50	3
History of United States II	HIST 243	50	3
Human Growth & Dev.	PSYC 288	50	3
Macroeconomics, Principals	ECON 329	50	3
Microeconomics, Principals	ECON 330	50	3
Psychology, Introduction	PSYC 182	50	3
Social Sciences & History	Elective	50	4
Sociology, Introduction	SOC 151	50	3
Western Civ. I: Ancient Near East 1648	HIST Elective	50	3
Western Civ. II: 1648 to Present		50	3
* together these exams would equal HIST 246	HIST Elective		
Science and Mathematics			
Biology	Elective – no lab	50	3
Calculus	MATH 131	50	4
Chemistry	Elective – no lab	50	3
College Alegbra	MATH 101	50	3
College Algebra-Trigonometry	Math Elective	50	3
College Mathematics	Math Elective	50	3
Natural Science	Elective – no lab	50	3
Trigonometry	Math Elective	50	3

WHAT TOPICS ARE APPROPRIATE FOR WRITTEN DOCUMENTATION?

The following topics are suggestions for the written documentation process; however, you are limited to these. The Director of Prior Learning Assessment will approve your topic.

ART

Art lessons (adult)
Ceramics
Interior Design
Illustration
Photography
Painting

RELIGION

Pastoral Ministry
Ethics
Missions
Christian Education
Discipleship
Youth Ministry
Inner City Mission
Spiritual Pilgrimage
Church Administration
Pastoral Licensing
Women's Ministry

BUSINESS

Advertising
Conflict Management
Human Resources
Quality Control
Real Estate
Entrepreneurship
Trade
Sales
Labor Relations
Public Relations
Financial Planning
Banking
Hospitality

PSYCHOLOGY

Crisis Intervention
Death and Dying
Divorce
Addictions
Parenting
Stress
Single Lifestyle
Abuse
Counseling
Behavior Modification

SCIENCE

Environment
Ecology
Health Related Issues
Nutrition
Electronics
Horticulture

COMPUTER SCIENCE

Programming
Network Administration
Information Management
Database Management
Non Credit Computer Courses
Microsoft Certification

EDUCATION

Early Childhood
Adult Education
Teaching Methods
Special Education

MUSIC

Adult Music Lessons
Performance Techniques
Composition

DRAMA

Acting
Stage Design
Playwriting

ENGLISH

Journalism
Creative Writing
Editing
Public Relations
Public Speaking

SOCIAL SCIENCE

Case Management
Criminal Justice
Marriage
Parenting
Interviewing
Gerontology
Juvenile Delinquency
Child Abuse
Addictions
Cross Cultural Comparisons

WHAT ARE THE STANDARDS FOR PRIOR LEARNING CREDIT?

ACADEMIC STANDARDS

- I. Credit should be awarded only for learning, and not for experience.
- II. College credit should be awarded only for college-level learning.
- III. Credit should be awarded only for learning that has a balance, appropriate to the subject, between theory and practical application.
- IV. The determination of competence levels and of credit awards must be made by appropriate subject matter and academic experts.
- V. Credit should be appropriate to the academic context in which it is accepted.

ADMINISTRATIVE STANDARDS

- VI. Credit awards and their transcript entries should be monitored to avoid giving credit twice for the same learning.
- VII. Policies and procedures applied to assessment, including provision for appeal, should be fully disclosed and prominently available.
- VIII. Fees charged for assessment should be based on the services performed in the process and not determined by the amount of credit awarded.
- IX. All personnel involved in the assessment of learning should receive adequate training for the functions they perform, and there should be provision for their continued professional development.
- X. Assessment programs should be regularly monitored, reviewed, evaluated, and revised as needed to reflect changes in the needs being served and in the state of the assessment arts.

Reprinted with permission: Copyright 1989, CAEL

PRIOR LEARNING ASSESSMENT—WRITTEN DOCUMENTATION PROCEDURE

WHERE DO I BEGIN?

If you reflect on your experience and decide to petition out of college level learning through the written documentation process, you need to take the following steps:

- Make an appointment with the Director of Assessment.
- Discuss with the director your educational goals and how you feel the Prior Learning Assessment program can help you reach them.
- If you decide to pursue this option, register for the Prior Learning Assessment class.
- Complete the Prior Learning Assessment class with a pass grade.

WHAT HAPPENS AFTER I COMPLETE THE PLA COURSE?

After successfully completing the Prior-Learning Assessment class, you may begin the petitioning process.

HOW DO I PETITION FOR CREDIT?

- 1. Write a final draft of your Prior Learning Assessment essay:** The draft should include the following:
 - At least 4 pages per credit hour for the self-directed essay and a minimum of 3 paragraphs for each of the 4 questions for the structured essay.
 - Identification of each part of the KOLB model (written in the margins or in parenthesis after the paragraphs) for the self directed essay.
 - Appropriate documentation: a works cited or bibliography page, work examples, letters from supervisors, copies of certificates (not the original), copies of licenses, programs, and any other valid support.
 - An essay written at the college level without grammatical errors
 - The appropriate petition sheet for either the self-directed or the structured essay
- 2. Submit the essay to the Director of Assessment:** The director will check the essay to make sure it is written on a college level with complete documentation. If there are deficiencies, the director will return the essay to you for further revision. The next step after revision is to petition for credit.
- 3. Petition for credit:** Once the Director of Assessment has approved the structured-learning paper or self-directed learning paper you may petition for academic credit. For a bachelor's degree you may petition for a maximum of **30 credits** through the written documentation process.
 - Your essay will be sent to a faculty evaluator who has expertise in the discipline where you are seeking credit.
 - At this time you will be billed the \$60 per credit to pay for the evaluation process.
 - All fees are non-refundable regardless of credit earned or not-earned.

4. Faculty evaluation:

- The structured-learning forms and self-directed learning papers are sent to the appropriate faculty evaluators for evaluation. The evaluators review the papers and either grant credit, grant partial credit, deny credit, or ask for additional development and/or verification.
- The evaluator will have two weeks to complete his/her evaluation.
- Once the evaluation is complete the essay will be returned to the Director of Assessment.

HOW WILL I BE NOTIFIED THAT CREDIT IS AWARDED?

The Director of Assessment will notify you regarding the status of your petition for credit. Any one of the following situations could occur:

1. **Full credit:** For full credit to be awarded, the level of learning should be equivalent to at least a 70 percent or higher or C- grade. If full credit is awarded, the director will make 2 copies of the petition sheet--one copy for the advisor and one for you. The original copy will become a part of your permanent academic record. The essay along with a copy of the petition sheet will be returned to you.
2. **Partial credit:** The Director of Assessment will notify you that you have only received partial credit. At this point you may decide whether you want to accept this credit or appeal the decision.
3. **Additional development and/or verification:** The Director of Assessment will notify you that you need to give the evaluator more information. At that time you can make direct contact with the evaluator to determine what is needed.
4. **Denial of credit:** The Director of Assessment will notify you that you did not receive credit, and you may decide whether you want to appeal the decision.

HOW DO I APPEAL MY PETITION FOR CREDIT?

If you are not satisfied with the results of your petition for credit, you can do this:

1. Appeal to the Director of Assessment
2. The director will tell you who evaluated your essay so that you can contact the faculty evaluator.
3. If the evaluator changes his/her decision, he/she should contact the Director of Assessment so that the petition sheet can be returned to the evaluator for his/her signature.
4. If the evaluator denies your appeal, you can ask for your essay to be evaluated by another faculty evaluator, but you must present a clean copy of the essay to the Director of Assessment.
5. The clean copy will be given to another faculty evaluator who is not aware that the essay has already been evaluated. If the second evaluator awards the credit, his/her decision will stand, and you will be awarded the credit. However, if the second evaluator denies credit, you may proceed to the next step.

6. At this point you may appeal to the Director of Assessment once again. For this appeal the Director of Assessment must form an ad hoc committee consisting of the Dean of the School of Adult Studies, the Director of Assessment and a faculty representative within the discipline where you are seeking credit.
7. If the ad hoc committee denies the credit, you must follow the standard appeals process outlined in the Adult Student Handbook.

WHAT IS THE DEADLINE FOR PLA CREDIT?

It is best to complete credit for Prior Learning at least one semester before you plan to graduate. This will assist you as you develop your graduation plan with your academic advisor. However, be sure to incorporate the following deadlines as you do your planning:

- **May Diploma:** February 1st
- **August Diploma:** June 1st.
- **December Diploma:** October 1st.

No Prior Learning Assessment credit will be accepted after the above dates.

WHO WILL HAVE ACCESS TO MY PLA INFORMATION?

During the assessment process your PLA essays will be viewed by the Director of Assessment and faculty evaluators. Material from the essays will not be made public unless you have signed a PLA Release form. If you do allow the College to make the material available to the public, you have the option of removing your name from the material. The essays are kept confidential.

WHAT ABOUT ACADEMIC DISHONESTY?

Academic dishonesty is a serious offense. Fabrication is the intentional falsification of information used to support your prior learning experience. It amounts to fraud. Plagiarism is also very serious because it amounts to your using another's ideas as your own. You must cite documentation correctly. Refer to a writing handbook for the correct way to cite academic sources.

WHAT FORMS ARE NEEDED TO PETITION FOR ACADEMIC CREDIT?

Structured Experience:

- If you have professional training or seminars for which you would like to petition for credit, you will want to use the structured format for your documentation.
- First, complete the structured petition citing all pertinent information such as your name, major, number of pages, a day phone number, your e-mail address, the date, title, contact hours and whether or not testing was involved in your experience. You can combine seminars in the columns on the petition sheet if the seminars are similar. However, be sure to include specific information for each seminar.
- Next answer each of the questions on a separate sheet of paper. If you have a license, you will want to give brief answers to the questions pertaining to the license. If it this was a not a license experience, you can omit those questions. Instead answer the 4 questions relating to the training or seminar. Number each question and give complete answers to each part of the question. Your response should have a minimum of 3 complete paragraphs. However, to be thorough you will probably have a longer response to each of the questions. Type your responses using a 12 point font Times New Roman with double spacing. Type the question and then the response. If you have several seminars, or workshops that are similar, you may combine the content within your response.

Self Directed Experience:

- Once you have completed the final draft of your self-directed essay you should attach the self-directed petition sheet. You are to complete the top portion of the sheet and the evaluator will complete the bottom section.
- On the top portion be sure to include your name, your Bethel College identification number, your major, a day phone number, your e-mail address, the title of the essay, the number of petitioned credits, whether it is needed for a department requirement, total pages in the body of the essay (excluding the Works Cited page), your learning outcomes and your signature.
- The essay should be typed (12 point font Times New Roman) and double spaced (omit extra spacing for quotes etc.) with the parts of the KOLB model marked either in the margin or in parenthesis after the sentence. The Director of Assessment will not receive a paper without the KOLB markings.

PRIOR LEARNING ASSESSMENT
SELF DIRECTED LEARNING
PETITION FOR ACADEMIC CREDIT

Student Name _____ **ID #** _____ **Major** _____

Daytime Phone # _____ **E-mail** _____

Discipline (Department where credit is to be awarded) _____

Essay Title _____

Credit Requested (number of hrs.) _____ **Number of pages** (text only) _____ **Date** _____

Identify the learning outcomes in one sentence (Thesis Statement):

I understand that by submitting this petition, I am agreeing to accept the decision of the faculty evaluator regarding the credit awarded.

Student Signature

(Evaluator Use Only)

- Credit Approved** _____ All competencies met.
Partial Credit _____ Minimal competency lacking in 3 items.
Addendum _____ Competency in most items, but need more information.
Credit Rejected _____ Minimal competency lacking in 4 or more items.

Evaluator Signature _____ **Date** _____

(Evaluator Use Only)

Task	Description	Demonstrated Excellence	Demonstrated Competency	Demonstrated Minimal Competency	Unsatisfactory Attempt	No Demonstrated Competency
1. Specific Experience	Student describes the experience that led to learning telling what, where, when, and possibly why.					
2. Reflection/ Observation	Student reflects and relates observation about the experience.					
3. Generalized Learning Concepts	Student uses abstract generalizations consistent with college level learning. These concepts are appropriate to receive credit in the academic department requested.					
4. Extended Application	Student gives evidence that he/she would be capable of applying this knowledge in other contexts.					
5. Documentation	Student presents evidence that validates the experience described.					
6. College English	Student demonstrates competency in spelling, grammar, and punctuation.					

Evaluator's Comments

PRIOR LEARNING ASSESSMENT
STRUCTURED LEARNING
PETITION FOR ACADEMIC CREDIT

Student Name _____ ID # _____ Major _____

Daytime Phone # _____ E-mail _____

Date Submitted _____ Pages _____ Credit Requested (number of hours) _____

Discipline (Department where credit is to be awarded) _____

Departmental Requirement Yes _____ No _____

	1	2
Title/Agency		
Dates Attended		
CEU/Clock Hours		
Documentation <ul style="list-style-type: none"> ▪ Books ▪ Copy of license ▪ Programs ▪ Certificates ▪ Letters 		

Exam Yes _____ No _____

I understand that by submitting this petition, I am agreeing to accept the decision of the faculty evaluator regarding the credit awarded.

Student Signature

(Evaluator Use Only)

- Credit Approved** _____ All competencies met.
Partial Credit _____ Minimal competency lacking in 3 items.
Addendum _____ Competency in most items, but need more information.
Credit Rejected _____ Minimal competency lacking in 4 or more items.

Evaluator Signature _____ **Date** _____

(Evaluator Use Only)

Task	Description	Demonstrated Excellence	Demonstrated Competency	Demonstrated Minimal Competency	Unsatisfactory Attempt	No Demonstrated Competency
7. Specific Experience	Student describes the experience that led to learning telling what, where, when, and possibly why.					
8. Reflection/ Observation	Student reflects and relates observation about the experience.					
9. Generalized Learning Concepts	Student uses abstract generalizations consistent with college level learning. These concepts are appropriate to receive credit in the academic department requested.					
10. Extended Application	Student gives evidence that he/she would be capable of applying this knowledge in other contexts.					
11. Documentation	Student presents evidence that validates the experience described.					
12. College English	Student demonstrates competency in spelling, grammar, and punctuation.					

Evaluator's Comments

Please do the following:

Answer the following questions on a separate sheet of paper. Type each question and respond with complete answers (a minimum of three to five paragraphs). Make sure you respond to each part of the question.

Questions:

1. Describe the experience by telling who, what, when and why you participated in the training. Be specific in your response citing dates and places and the length of time of your certification. If you have a license, tell what was needed to obtain and maintain the license.
2. Reflect on your experience and relate your thoughts and observations. Was this experience valuable? Why? Why not?
3. After reflecting, identify specific concepts, theories, rules or principles that would make this a college level learning experience.
4. Tell how you have applied these learning concepts on your job and in your personal life.

PRIOR-LEARNING ESSAYS

Experiential learning is presented to faculty evaluators through well-written essays. Faculty will evaluate papers within their discipline to determine whether academic course credit (e.g., sociology, science, and humanities) can be given.

Credit cannot be awarded for experience alone nor can the evaluators assume what you know as a result of a given experience. Faculty cannot read what is in your mind or evaluate your intuitive knowledge. On the other hand, documentation alone cannot explain your knowledge. Products you have created such as poetry, painting, photographs, technical manuals, etc., cannot be evaluated for credit by themselves. An effective prior-learning essay, then, presents to the faculty both information and documentation in a thoroughly developed and coherent essay.

ESSAY REQUIREMENTS

There are several things evaluators look for in an essay, which are not directly related to a given field of knowledge but which is an important part of conveying knowledge. These might be called “generic” or “universal” factors, which are required in all essays regardless of the particular subject being discussed. Each essay must include:

1. At least one year of experience
2. How the knowledge is acquired
3. How the knowledge was applied and used
4. A description of learning outcomes
5. Evidence of your processing of the knowledge
6. Evidence of generalization and conceptualization.

Since evaluators will be examining your essays for these factors, it is important to include them when writing your essays.

KNOWLEDGE AND EXPERIENCE

The evaluator will examine your essay to see that it contains both knowledge and experience. Your experience provides a frame of reference for your knowledge. The essay cannot be only a nice story, nor can it be a term paper, which presents only ideas and principles but never mentions your experience.

APPROPRIATE DOCUMENTATION

Finally, faculty evaluators look for appropriate documentation of learning experiences. All essays must have documentation. Documentation is the verification of specific learning experience. The following guidelines give suggestions for this documentation:

1. **DOCUMENTING PROFESSIONAL EXPERIENCE:** Employment records, awards, letters of recommendation, letters of corroboration, congratulations of high performance; promotion evaluations, evidence of promotion; evidence of suggestions adopted; samples of work produced; membership in professional organizations.
2. **DOCUMENTING COMMUNITY SERVICE ACTIVITIES:** Commendations, awards, newspaper and magazine clippings, and letters of corroboration from co-volunteers, clients served, and supervisors.
3. **DOCUMENTING SPECIAL ACCOMPLISHMENTS:** Books published, pictures painted, music written, exhibits such as shells, plants, etc., patents obtained, programs from performances,

writing samples, audio-visual presentations, proposals written. NOTE: Works of art should be submitted in an appropriate visual form and will be returned. Consult the Director of Assessment regarding these.

4. **DOCUMENTING PERSONAL EXPERIENCES:** Useful as further insight into the learning process is a list of books or articles read, countries visited, videos seen, and consultations with experts **within the discipline** for which you are petitioning credit. For instance, if you need sociology credit, expert resources should include academic experts who are sociologists or who have significant experience in the field of sociology. Consult with an academic librarian to identify appropriate academic resources.

5. **DOCUMENTING EXPERIENCE THROUGH LETTERS:** Letters can be used for verifying many learning outcomes. When students ask someone to write a letter of verification, the person from whom the letter is requested should be given explicit instructions on what the letter should contain. Students would use the following guidelines in writing for letters of verification:
 - a. The individual writing the letter must know the student and have first-hand knowledge of the experiential activity, which the student has cited in the portfolio essay
 - b. The author of the letter should state clearly the nature of the relationship with the student.
 - c. The letter should be written on the official letterhead stationary of the company or organization with which the author is associated.
 - d. The content of the letter should focus on the duties, responsibilities, tasks or activities that were inherent in the experience under consideration. In addition, the letter should set down the context of experience—who, what, when, why, for how long, where, etc.
 - e. A special accomplishment resulting in a product requires documentation in the form of one or more letters of verification authored by persons who observed the student while he/she was developing the product.
 - f. The student should make it clear to the author that the letter to be written is one of verification, not recommendation.

Best of all, write it for them and have it typed on their letterhead and signed, or simply have them sign it!

HOW MANY ESSAYS WILL BE WRITTEN?

Everyone writes two papers for the Prior Learning Assessment course. One must be a six-page, self-directed paper and the second can be another six-page, self-directed paper or one structured learning paper. These may be submitted for academic course credit as is or expanded to receive more credit (one credit hour for about six pages of text for the self-directed paper).

In order to estimate how many essays you should develop, you need to have an interview with the Director of Assessment. At that time you can determine the areas in which you need academic credit so that your essays can be written to fulfill requirements.

CHOOSING A TOPIC FOR YOUR ESSAY

There are several approaches that can be used to identify learning topics. You can start with knowledge, competencies or experience. Sometimes a body of knowledge will be associated with a single learning experience, and thinking about that experience will help you identify the knowledge area, e.g., knowledge of Mayan Culture from a trip to Mexico. There may be other instances, however, where a given experience may be associated with several knowledge areas. For example, a financial manager may have acquired knowledge in a variety of disciplines so it is important to identify the skills and knowledge required for each discipline.

Knowledge in some subject areas may have been acquired from many experiences rather than a single experience. You may want to identify some knowledge areas first and then think about the experiences associated with them.

Another approach is to make a list of competencies. Begin each statement with “I know . . .” or “I can” This approach is useful in further identifying your knowledge and skills within a given course area, e.g., “Regarding supervision, I know . . . I can . . . “. You can then discuss each knowledge area or skill in more detail.

Do not limit your exploration to work-related learning experience, e.g., hobbies (art, music, and drama), travel (foreign cultures), church (Sunday school, youth groups, and Bible study), reading (literature, history, and psychology) and community work (youth leadership, government). These are just some examples.

DUPLICATION OF CREDIT

In choosing the subjects for your learning experiences, avoid courses which duplicate credit you have already earned through previous coursework or credit you might be awarded for certified courses presented through structured learning.

RESOURCES

You may include in the prior-learning paper quotations from books you have read or other references you have which have added to your understanding. Document your use of the author’s material even if you include only the author’s ideas.

THE STRUCTURE OF THE ESSAY

THE INTRODUCTORY PARAGRAPH

Begin the essay with the introductory paragraph. This is a very important organizing tool which will assist you and the reader. (It also will serve another function since it can be used on the petition sheet.) The first task is to get the reader's interest with a general introduction to the subject area and then move to a more specific and perhaps personal reference, and finally, state precisely what will be discussed in the essay. This precise statement, the learning outcomes statement, will normally be the final sentence or two of the paragraph. It should specifically include three features 1) your subject/topic, 2) what you have learned from the experience and 3) the steps (outline) you are going to lead the reader through to present it.

For example, a student petitioning for credit in Non Profit Fund Raising might begin his/her essay like this:

As I experienced the actual planning of the events, each of the steps as to how we would achieve results unfolded. I learned about organization, interpersonal skills, and delegation. (This was the student's learning outcomes statement.) Each step of the planning process had to be a building block for the next step. This was accomplished by breaking the large event into small manageable pieces.

THE BODY OF THE ESSAY

In the body of the essay, discuss each of the things you specified in the learning outcomes statement. If as you write the essay, you think of other areas having to do with small business management (in which you have expertise), add them to the learning outcomes statement in the introductory paragraph in your final draft.

In the body of the essay, you want to demonstrate the full extent and the most complex levels of knowledge and intellectual skills you have on that subject. Demonstrate comprehension and the ability to generalize and conceptualize. Include your experience and its relation to your knowledge and, in particular, demonstrate observations and applications. Both knowledge and experience must be included, but of the two areas, knowledge should be emphasized since the extent of your knowledge will directly affect the amount of credit awarded. Your experience will be a thread through the essay as you include it to explain a source of knowledge, an application of knowledge, or as an illustration of a principle, e.g., giving examples from your experience.

To get an idea of the interplay between all these factors, consider the following example which is just part of several paragraphs on advertising principles and procedures:

I learned in an American Management Association course that the best advertisement is the one, which costs the least and has the greatest coverage. However, it pays to be sure that the coverage is the best for you. For example, one of the newspapers offered a good deal on additional coverage in the entire Northern Area for a small extra charge. I thought this was advantageous until I began getting mail orders from 500 miles away and was spending my profits on postage.

In this excerpt, the student's experience is clear. In the experience are two principles of advertising: Advertising should cover manageable territory and advertiser should use the lowest cost advertising, which gives them the greatest coverage. The student clearly shows that part of his/her knowledge about

advertising came from work experience and part from a course taken from the American Management Association.

This student to fully develop the body of the essay should include paragraphs on each of the areas mentioned in the learning outcomes statement, i.e., two or more paragraphs each on advertising, supervision, inventory, etc., No major section may have fewer than TWO PARAGRAPHS. In these paragraphs discuss knowledge, principles, sources, applications, and other material related to the thesis statement.

NOTE: To do a good job on your essay, you should not expect to be able to compose the final product on your first attempt. You should probably write an outline and at least two drafts. **PROOFREAD THOROUGHLY** before turning in any draft. Handwritten corrections on drafts turned in are preferred to not making a few corrections. Papers that appear not to have been proofread will be returned for correction.

ANALYZING LEARNING

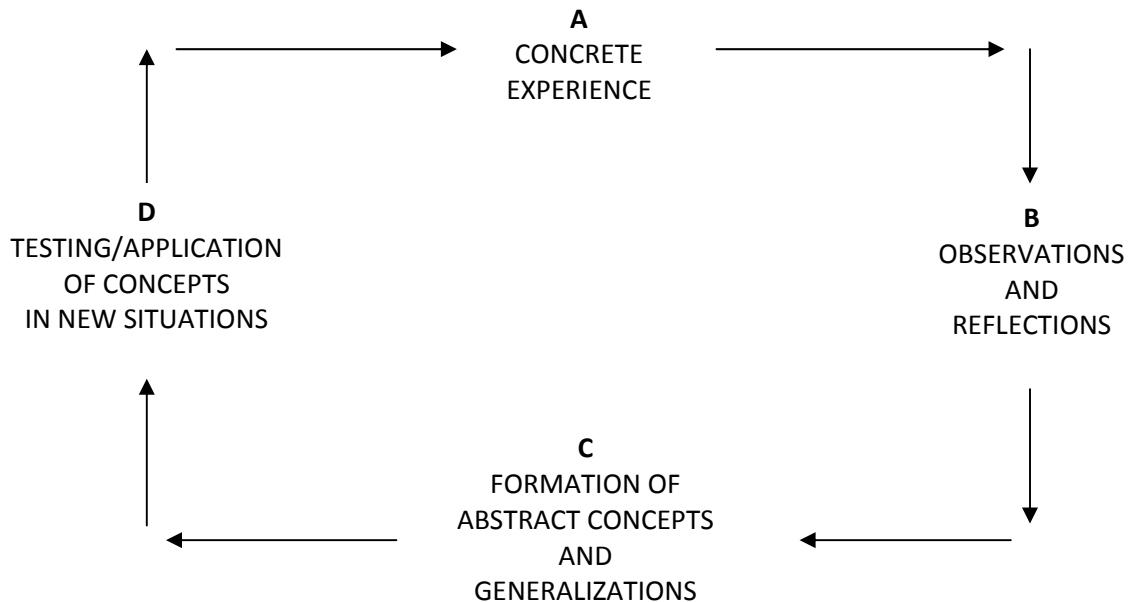
Before you can actually start writing your essays, you will need to do a lot of thinking about your learning. It is probably fair to say that more time will go into exploring and identifying your knowledge than into the physical writing of the essay. In fact, if you have thoroughly thought about your knowledge in a given area, you will have an easier time of writing about it than if you start out writing and expect everything to fall into place. The information on the following pages has been included to stimulate your thinking about your knowledge, to help you identify what you know, and to explore it to its fullest extent so you can convey it in your essays to the evaluators.

Another common error is merely stating factual knowledge without demonstrating comprehension of it through discussion. Remember, one of the factors the evaluators will be looking for is evidence of mental or intellectual processing, i.e., evidence in your discussion that you have thought about the knowledge, that you can manipulate it, explain it, show what it means, how it works, etc. The amount of credit you will be awarded is directly related to the extent of your knowledge and comprehension presented in each essay.

Think about your experiences, and the knowledge you have gained from them, or think about your knowledge in an area and the experiences which produced it. Then focus on the knowledge itself and explore it, trying to determine all you know about the subject. Only after you have analyzed your learning will you be prepared to start writing your essay.

KOLB MODEL OF EXPERIENTIAL LEARNING:

(THE RELATIONSHIP BETWEEN LEARNING AND EXPERIENCE)



(Basic Model from D.A. Kolb and R. Fry, "Toward an Applied Theory of Experiential Learning," Gary Cooper, Ed. Theories of Group Processes, Lond/News; John Wiley and Sons, 1975)

Understanding the relationship between knowledge and experience will help you to explore and analyze your own learning.

Using Kolb's model, we begin at Step A with the individual's concrete experience. (Remember concrete experience includes things like reading, consulting with others and personal research.) At Step B, the individual "'steps back" from the experience, observes it and reflects on it. This might involve noticing similarities or differences, patterns or results of certain actions. Based on his/her observations and reflections, the individual makes a generalization or formulates a principle about what was observed (this is Step C) and then goes on to apply this principle or generalization (Step D) to see if it holds true. This leads to another concrete experience. The individual makes new observations and reflections, and based on them formulates or refines the principle and again applies it. Kolb's model might be better pictured as a spiral since the circle repeats itself, but on a more refined or sophisticated level each time, since additional knowledge is gained each "turn."

Consider the following example. The letters in parenthesis indicate the steps corresponding to the model.

- (A) Harold supervises Sam and Jill. He has been especially pleased with their performance and has told them so.
- (B) Harold notices Sam and Jill seem to work harder and produce more after he praised them. Harold wonders why this is so.
- (C) Harold makes a generalization: Employees will produce more when their efforts are praised. Harold goes further: He thinks this is related to a human need for recognition.
- (D) Harold applies his generalization: he praises his employees' efforts to see if praise always is followed by increased productivity.
- (A) Harold has a new employee, Fred. Harold praises Fred's performance.

- (B) Harold notices no change in Fred's productivity and wonders why this is so. How is Fred different from Sam and Jill?
- (C) Harold revises his generalization: Some employees will produce more when their efforts are praised, but some will not, because some employees value recognition and some are motivated by other things.
- (D) Harold applies his generalization. He tries to find other things he can do which will increase Fred's productivity.

Look at the model again. (A) represents concrete experience, and (C) represents abstract concepts. Neither of these would be acceptable alone as an essay. Discussing only theories and knowledge (C) would constitute a term paper with no obvious relationship to your experience. Even including both your experience and abstract concepts might not fully illustrate the relationship between the two. This is why steps B and D are so important. They are the connecting steps between only experience and only knowledge. Steps B and D, reflections and application, are a mixture of ideas and experience, and it is important to include them in your essays because they are the link between your knowledge and experience and because they help illustrate how you acquired your knowledge from your experience.

In your essay, you do not need to go into the step-by-step presentation in the example of Harold. You do not even need to go in the order of Kolb's model. You should, however, be sure all four elements of Kolb's model are present in your papers.

Therefore, you are to hand-label or type in the right-hand margin or put in parenthesis after the sentence each of the KOLB elements each time they occur. (Your paper will not be read without these markings.) As previously stated, the evaluators will be looking for both your experience (A) and your knowledge (C), ability to generalize or form abstract concepts (C), applications (D), and how you acquired your knowledge from your experience (B). How to present these various factors and how much emphasis to give each was discussed under "The Structure of the Essay."

The following questions and outline may help you in analyzing your learning according to Kolb's model for writing a description of Experiential Learning. These are not all inclusive, nor do all of them apply to every learning experience. They are meant to be an aid to get you on the right track. Refer also to the experiential learning worksheets, which follow.

ESSENTIAL REQUISITES FOR PRIOR-LEARNING ESSAYS

2-1

<p style="text-align: center;">Use of terms, Language, concepts And constructs <u>appropriate to the discipline</u></p> <p style="text-align: center;">i.e., natural science, sociology, psychology, philosophy, religion, etc.</p>	<p style="text-align: center;">Ample Incorporation Of the <u>KOLB Model</u></p> <p style="text-align: center;">concrete personal experiences</p> <p style="text-align: center;">reflections/ observations,</p> <p style="text-align: center;">generalizations/ principles/ concepts,</p> <p style="text-align: center;">applications/ illustrations</p>	<p style="text-align: center;"><u>Style, format and quality of writing</u> appropriate to the disciplines and at the collegiate level.</p>	<p style="text-align: center;">Proper <u>Documentation:</u></p> <p style="text-align: center;">-Verification of unusual experiences</p> <p style="text-align: center;">- Reference and use of an expert in discipline to corroborate personal experience/ conclusions.</p>
---	---	--	--

IMPORTANT NOTE:

1. Label your learning outcomes or thesis statement and the elements of the KOLB model in the RIGHT-HAND margin. You can also mark the elements right after the sentence by putting them in parenthesis.
2. The first draft of the first two papers will not be graded – so RELAX! The comments and corrections should help as you write the second draft.

Therefore, you are to label in the right-hand margin each of the KOLB elements each time they occur. (Your paper will not be read without these markings.) As previously stated, the evaluators will be looking for both your experience (A) and your knowledge (C), ability to generalize or form abstract concepts (C), applications (D), and how you acquired your knowledge from your experience (B). How to present these various factors and how much emphasis to give each was discussed under “The Structure of the Essay.”

The following questions and outline may help you in analyzing your learning according to Kolb’s model for writing a description of Experiential Learning. They are meant to be an aid to get you on the right track. Refer also to the experiential learning worksheets which follow.

KOLB'S STRUCTURE OF EXPERIENTIAL LEARNING

A. CONCRETE EXPERIENCE

1. What did I do? Where? When? For how long? Why?
2. How many other people were involved? Is my role, responsibility and contribution clear, from that of the group or committee?
3. What was the extent of my involvement?
4. What techniques, methods, or procedures did I use? Why?
5. What were my goals and objectives? How did they influence my approach?
6. What resources did I use?

B. OBSERVATIONS AND REFLECTIONS

1. What were my thought processes? What were the considerations, decisions and rationale?
2. What did I notice? Trends? Patterns? Differences? Similarities?
3. What was important, significant, different, and unique?
4. What worked and what did not work?
5. What can I say in retrospect?
6. What relationships have I noticed?

C. FORMATION OF ABSTRACT CONCEPTS/GENERALIZATIONS/PRINCIPLES

1. What ideas, insights have I had?
2. What hypotheses, rules, laws, theories, and principles have I formed to explain this? Why does this happen? Why does this work, or does not work? Why is this the same or different? Why does this trend, pattern or relationship exist?
3. Is this explanation or theory appropriate for more than one situation?
4. What would also be true or relevant for other persons or situations?
5. Can I look at my learning experience from a broader perspective and make generalizations from it?

D. TESTING/APPLYING/ILLUSTRATING CONCEPTS IN NEW SITUATIONS

1. Would my knowledge be useful in other situations?
2. Based on this knowledge, what have I done, or what would I do?
3. Can I make predictions based on my knowledge?
4. Have I tested my ideas, concepts, or those of others that I have learned? If not, can I make a guess what would happen? Why?
5. Can I look at my learning experience from a broader perspective and make generalizations from it?

NOTE: Use the following worksheets to help you analyze your learning for each essay you will develop.

EXPERIENTIAL LEARNING WORKSHEET #1

SUBJECT AREA _____

CONCRETE EXPERIENCE:

Describe the nature of the experience, e.g., what you did, why, when, where, for how long, others involved, the depth and breadth of the experience, other experiences contributing to the knowledge gained.

OBSERVATIONS/REFLECTIONS:

Describe and analyze the effect, e.g., what worked and what did not, what you learned about yourself, others, or that particular situation

FORMATIONS OF ABSTRACT CONCEPTS/GENERALIZATIONS/PRINCIPLES:

Describe the underlying principles that shaped the experience(s), e.g., theories, patterns, rules, methods, beliefs, etc., and why they work.

TESTING/APPLYING/ILLUSTRATING CONCEPTS IN NEW SITUATIONS:

Describe how you can use or have used what you learned, e.g., how you can use this knowledge in other situations in the future, of what use is the knowledge, does it apply to other organizations, to other people.

DOCUMENTATION OF THE LEARNING EXPERIENCE:

Identify the sources of the learning, e.g., secure appropriate materials to verify the experience and validate the knowledge/positions/conclusions.

EXPERIENTIAL LEARNING WORKSHEET #2

Sample Questions for Identifying Learning

1. What was the experience and when did it occur (date)?
2. What was the setting and the length of your involvement?
3. What were your responsibilities?
 - a.
 - b.
 - c.
4. What did you have to do to fulfill your responsibilities?
 - a.
 - b.
 - c.
5. What did you have to know to perform your job?
6. Were you evaluated in any way? Did you evaluate yourself in any way?
7. What new knowledge did you acquire from this experience?
8. How have you applied this knowledge?

EXAMPLES: The learning experience essay that follows illustrate areas discussed in the KOLB model.

Once you have successfully written and proofread your essay, you are now ready to send it to the Director of Assessment to petition for academic credit. Refer to the section on procedures to complete the process of petitioning for academic credit.

THINKING ABOUT THINKING

Most of us would be pleased to be described as a person who thinks for himself. Critical thinking is an educational goal as desirable as good health. Former Harvard President Nathan M. Pusey has said that the job of the university is “To educate free, independent, and vigorous minds, capable of analyzing events, of exercising judgment, of distinguishing facts from propaganda and truth from half-truth and lies.” He is talking about critical thinking, a central task of the school from kindergarten through graduate school.

Critical thinking is thinking which has been systematically criticized. It criticizes not only the means used to reach goals but the goals themselves; it evaluates our values. It is meeting a fork-in-the-road situation for which no neat exact map already exists. It is the kind of sustained thinking necessary to deal adequately with such questions as: How can we develop an equitable taxing system? What safeguards does modern technology require? What is worth waiting for?

Sometimes the critical issue faced by an individual is that of defining the question. Obviously, we cannot find the answer until we are clear about the question; we must both define and confine the problem. A friend of Charles Kettering had the idea of teaching people to think by using jigsaw puzzles. Kettering pointed out, however, that in a jigsaw puzzle the limits of the problem have already been defined; one only puts the available pieces together. Life, he said, is like a jigsaw puzzle in which you do not know the outer dimensions of the puzzle, and sometimes you do not have all the pieces.

The teaching of critical thinking in the social sciences, Dressel and Mayhew have noted, should produce the ability to (1) identify central issues, (2) recognize underlying assumptions, (3) “to evaluate evidence or authority,” is subdivided into the ability to recognize the adequacy of data, determine whether facts support a generalization, and check consistency.

CRITICAL THINKING IN READING, LISTENING, AND OBSERVING

The thoughtful reader, listener, or observer (as contrasted with the trained one) will not passively accept what is read, heard, or seen. Similar thoughtfulness is required in writing, speaking, and visualizing. Although the following discussion emphasizes reading, the principles also apply to listening and observing.

Reading can be roughly organized into three levels of thinking. The first level is simple, uncritical reproduction, a duplication of what has been read. This requires thinking, of course, but the skills are readily predictable. It is reading the lines—merely viewing a photograph or exhibit. It is literal comprehension. The reader knows what the author “said,” no small accomplishment. What did he mean?

The second and higher level of thinking involves drawing inferences and discovering the implications. To interpret cartoons, for example, we must read between the lines. It requires critical thinking, an analysis of what the message really meant, and the use of the higher mental processes. Did the author write ironically with tongue in cheek? Was his tone helpful? Was it cynical or an exaggeration for effect?

A third level of thinking involves interpretation, evaluation, and application of what is read, heard, or seen and requires vigorous, critical judgment. It is reading beyond the lines. One must “distinguish facts from propaganda and truth from half-truth and lies,” as noted above by Pusey. Hence we have three levels of thinking: Duplication, implication, and application.

We deal more specifically with some characteristics of critical reading and offer suggestions for developing the critical reader. These points also apply directly to critical listening and observing.

- (1) Critical reading is independent reading. It is independent in the sense that thinking – like loving and appreciating – is an individual, personal affair, not initially a group process. The critical reader is often on his own – self-directed, not teacher-directed. He is becoming an independent learner, one who has learned how to learn and loves learning.
- (2) Critical reading is problem centered. One of the key tasks of critical reading is to find and state the problem, the key issue. If you cannot identify the problem, you cannot solve it. Further, without critical analysis we are likely to treat symptoms, not causes.
- (3) Critical reading is analytical and judgmental. A literary critic analyzes a book and then passes judgment on it, noting its strengths and weaknesses. He probes hidden assumptions and evaluates the logic or illogic of the writer. He must present his best judgments, demonstrate his awareness of critical standards, and indicate either directly or inferentially, whether this book is worth reading. Critical reading is disciplined reading by persons who have convictions about something.
- (4) Critical reading is based on a stubborn effort to get at the truth. The critical reader must be aware of all the barriers to the truth, many of them in his own mind. He must learn that we see the world through the lenses of our own experience. Perceptions are personal: the eye sees what it knows. Even eminent scientists may be bumbling amateurs when they try to think outside the field of their competency.

How does a good historian behave when he deals with an event in which he is personally involved? Lord Acton instructed the contributors to the Cambridge Modern History to write as if situated “in Long. 30 degrees W.” in the middle of the Atlantic Ocean. The critical thinker, like the historian, must make a conscious and disciplined effort to get at the truth. He must persistently ask what is the evidence?

Obviously, the disciplined chronicler of history must bring logical thinking to bear in collecting evidence. But is logical thinking enough? Does it meet all the needs of critical and creative thinking? Do our neat and supposedly logical arrangements for teaching subject matter always fit the varied outcomes that we are seeking? Is it true, as Harold Lasswell notes in Psychology and Politics, that “That ultimate paradox of logical thinking is that it is self-destroying when it is

- (5) Critical reading is creative, imaginative, and nonconformist. Here we can contrast training and education. Reading can be taught as training – with fixed limits and predictable responses. Genuinely educational experiences, however, have no ceiling, no fixed boundaries, and no neat terminal points. Critical reading, like critical listening and observing, is a creative, imaginative, reflective interaction with a writer, a speaker, or a visualizer. Life is a jigsaw puzzle without neat limits and with pieces missing, as inventory Kettering noted and, therefore, demands critical thinking.
- (6) The critical reader associates with the best minds of all generations. One of the best ways to do this is to read thoughtfully, analytically, judgmentally, and critically. Ezra Pound once said “Literature is news that stays news.” Certainly the wisdom of Shakespeare has remained news for four hundred years, and the insight of Cervantes, Boswell, and Thoreau has present day applications. The best minds of all generations have been creating beautiful sounds and rich and evocative images.

- (7) Critical reading is an involving, participatory experience. Walt Whitman once said, “Books are to be called for and supplied, on the assumption that the process of reading is not half asleep, but in the highest sense, an exercise, a gymnast’s struggle; that the reader is to do something for himself.” The unthinking passivity of routine acceptance is a great hazard in listening and observing as well.

The word “dialogue” has been overused, but it does have rich meaning. In critical evaluation you have dialogue, a conversation with the “author”. You ask him tough questions, and sometimes you feel that he answers them well, and sometimes that he answers badly. The critical thinker will ask the age-old questions that everyone faces and tries to answer: Who am I? What am I here for? What is worth doing? How responsible am I for my neighbor, and who is my neighbor? What really makes a difference?

- (8) The critical reader is sensitive to words and has acquired an excellent vocabulary. To read and think critically we must savor the flavor of words and make subtle discriminations among meanings or words—for example, “irony”, “sarcasm”, and “satire”, or burlesque’, or farce.”

The critical reader must be able to spell lest he confuse “perimeter” with “parameter,” “council” with counsel,” “broach” with “brooch,” or “arraign” with “arrange.” The critical reader is sensitive to metaphor, a way of making words do extra work. He is at home with terms like “synecdoche,” “oxymoron,” “metonymy,” and “litotes.”

Meager vocabularies betray our failure to read widely and critically. For example, a young woman reportedly approached Robert Hutchings after a lecture and said, “You were simply superfluous. I have never heard such an enervating speech.”

“Thank you,” Hutchins replied. “I am thinking of having it published posthumously.” “Wonderful,” replied the young woman, “and the sooner the better.”

- (9) The critical reader reads to remember, not to forget. What the thinking reader selects should not only be worth remembering but also worth reflecting on and talking about. Knowledge unshared is knowledge forgotten. Critical reading, listening, and observing are active, not passive, mental processes. The uncritical reader often reads to erase experience, but the critical reader tries to make a mentally indelible record of what he has read.

THINKING AS CHOOSING

All education involves the development and refinement of choice – an awareness of alternatives and the need to study and mentally rehearse the possible consequences of these alternatives before choosing them. To choose wisely is to live well, and the story of every man’s life lies in that quality of big and little choices, the options that he selects.

In Can People Learn to Learn? Psychiatrist Borck Chisholm says:

The sort of questions an active, free, and well-developed imagination will answer truly are, “What will happen if I do so and so?” “What will be the result if I go such and such a place?” “What will be the effect if I say this or that?” “Will those happenings, results, or effects be desirable for me and for others, and for my relationship with myself and with others?” “Will they enhance or outweigh and diminish whatever satisfactions I may expect my actions to produce?”

What will happen if . . .? Here the experience of the individual becomes critical. We all operate in the present, but we can either merely exist in a restricted, narrow present, or we can act in an amplified present, a present illuminated by our past experiences and our thoughtful hopes for the future. For some, this circle is limited.

We all make some poor choices, the consequences of living in a world where there are many options. If we make poor choices, we ask: Where and how did my thinking go wrong? Did I operate with the best information I could get, or did I choose hastily and carelessly? The mature person has learned that he is responsible for his own choices, hence the importance in an educative environment of helping people become aware that they are choosing – by default sometimes, but choosing nevertheless.

THINKING AS DISCOVERY

Discovery is of two kinds – what we are looking for directly and what we may not be looking for at all. Serendipity will produce an unexpected bonus, something gained not by a direct search but as an outcome of a direct search for something else. We are, however, most likely to discover something if we are searching for an answer to a well-formulated question.

We can also learn more than one thing at a time through concomitant or secondary learning. We can aim to discover the why and how of experience as we are learning the what. Furthermore, all learning can develop a vigorous spirit of inquiry, new ways of doing things, and improved efficiency. A taste for learning can grow and develop.

We have seen that learning by discovery is a search for new meanings, for developing transferable generalizations drawn from concrete experiences. We abstract these experiences from their specific concepts and generalize them, often in verbal form. Some writers have pointed out, however, that there is danger in verbal form. Some writers have pointed out, however, that there is danger in premature abstractions, in verbalizing too soon. Further, we can successfully generalize without verbalizing; artists do this all the time. We face, then, the twin hazards for getting stuck in the concrete or lost in the misty clouds of abstraction.

CREATIVITY AND THE THINKING PROCESS

In today's world creativity is not just a nice thing to have; it is a grave necessity. We need more innovation and invention, first, to save the work from self-destruction, and second, to contribute to the mental health and power of individuals. Imitating the past is not good enough; only the creative society will survive.

Suppose we want to promote creativity in several fields of study. How do we go about it? For example, how do you read creatively? Many students believe that the best way to master an assignment is to read it over and over again. But is it? The best evidence is that rethinking a passage is often more productive in terms of time spent than rereading it. The students who recreate rather than reread are reorganizing the material and putting it into their own filing system, readily available for later use.

Can you teach a person to be a creative writer, obviously a person who can think critically? John Ciardi said in the Saturday Review (December 15, 1956):

The truly creative –whether in art, in science, or in philosophy – is always and precisely that which cannot be taught. And yet, though it seems paradoxical, creativity cannot spring from the untaught. Creativity is the recombination of old elements into new. And so, it may be seen that

there is not real paradox. The elements of an invention or of a creation can be taught; but the creativity must be self-discovered and self-disciplined.

What about creativity in personal relationships? Does it, like creative writing, involve “the imaginatively gifted recombination of old elements into new?” We envy but do not imitate those persons who are unusually creative in the art of being friendly. They exhibit those heartwarming nuances of taste and conduct which distinguish a gracious person from an ordinary one. We all remember with appreciation those insightful comments that creative teachers with extra sensitive perception wrote on our papers. The instructor saw us as a person and cared about what we said.

Let us suppose that we tried to set up a school environment highly conducive to creative thinking and learning. What would it be like?

It would be one which embodied great respect for the dignity and the importance of every student. There would be a higher level of self-discipline, of dedication, and of personal responsibility for learning. Openness to experience would be considered a critical goal of the curriculum.

We would cherish the opening of minds and shun the closing of minds. We would try to unfreeze “frozen perception.

Can we press too hard for a creative approach to all problems? Certainly we would not want creative spelling. How much change can we stand without future shock? We should aim for an appropriate balance between creative flexibility and the stability provided by current knowledge. We should be aware, too, that some people cannot live comfortably with tentativeness or tolerate ambiguity; they need a large amount of structure.

To be creative is to be thoughtfully involved, to be a concerned and active participant, not a disengaged spectator. Creativity is an experience in depth that transforms pleasure into joy, entertainment into delight, and listless apathy into dynamic living.

THE LIBERATED MIND

If we want to live in the “land of the free and the home of the brave,” it will take rigorous thinking to do it. To be free is to be in charge of one’s own life, to be conscious of one’s developing powers, and to be open to new ideas, not closed to them. It is to be skilled in understanding causes and effects, and to become increasingly adept in forecasting the consequences of our actions. It is to learn day by day that everything is related. To be free is to prize diversity and pluralism, and to oppose prejudice, totalitarianism, and fanaticism.

Finally, there are few satisfactions greater than being your own person, living a thoughtful life where few hostages have been given to fortune, and achieving your own unique values. What, then, do many people, young and old, really want? They want more uncluttered space, physically and spiritually. They want a place where they can sit down without having someone tell them to move over. They want more people to practice what Rudyard Kipling called “the art of judicious letting along.”

They want a socially productive economy instead of mindless waste; they want their money’s worth, whatever they buy. They want to spend their life for something that will outlast it, as William James put it. They want people around them who are worth imitating. If we wish to develop thoughtfully creative individuals, then we must value them enough to do something to increase their number. We must place this goal high on our personal and national agenda, and think harder about thinking.

LEARNING TO LEARN

In an unpredictable world, all of us must learn to learn and to develop a taste for learning. Indeed, the chief product of learning may well be the process of learning. Every learner must develop the motivation to learn – the want-to – and he must couple this with the methods and the materials of learning – the know-how and the know-why. Therefore, his curriculum will be not only the subject matter of a field but the associated learning process as well. He must, in short, consciously learn how to process information, ideas, and subject matter.

CHARACTERISTICS OF LEARNING TO LEARN

Every learner must learn how to get his ignorance organized and how to judge what knowledge is most worth. Students must learn not only to distinguish the poor from the good, but the better from the best. They must realize that day by day, consciously or unconsciously, they are choosing their standards. A sloppy presentation, a carelessly written them, or allowing “good enough” to be a substitute for “good” are all results of inefficient, inept, and thoughtless learning. The excellence that is demanded by high standards is needed in auto repair just as it is needed in nursing or surgery.

Students must learn to see subtle differences in books and magazines, in drama and films, in poetry, and in personal conduct, where previously they saw either gross differences or no differences at all. They must discern these differences themselves, not merely memorize what other discriminating persons have seen. Learning is like eating or sleeping. A person must do it himself; it cannot be delegated.

If we learn to attack problems in depth, our usable memory of that subject will be greater, and our ability to learn from it will be enhanced. Further, the enjoyment that comes from really knowing a subject will make it unnecessary to have someone around to keep winding us up. Instead, we can become self-winding and self-sustaining in our intellectual activities. Success in learning will provide increasingly strong motivation. Indeed, the best motivation for success is success itself.

In mastering any subject, in learning to learn, we must map the field, note its basic principles, its key ideas and vocabulary, and its conceptual structure. For example, no sensible person studies the automobile by first trying to master the names of all its parts. Instead, he thinks in terms of systems – ignition, fuel, transmission, braking, and so on. In each of these cases there are meaningfully related concepts, for example, spark plug, condenser, timer, and carburetor. The basic vocabulary must be learned.

The solution of problems requires that we quickly bring dissimilar ideas together, a process that requires one’s mental scanning system to operate at full efficiency. The crux of learning is to develop a conceptual scheme for skillful filing of experience. This means constant practice in school and college in the filing and retrieval of past experiences, and a shifting from asking only: what did the textbook or reference volume say? To: what ideas do I already have that I can bring to bear upon solving this problem?

A person who is learning to learn searches for relationships—for the ways by which he can put experience together more meaningfully. Let us apply this to concept development. Nearly every college student has come into contact with words such as “dystrophy,” “eugenic,” “dyspeptic,” and “eupletic.” When he meets the word “eudemonic,” he can check the context to see if it means “good demon.” It is a little hard to work “eudemonic” into dinner table conversations, but we ought to learn some things just for our own amazement.

Many persons know such words as “neuritis,” “anemia,” “claustrophobia,” and “psychosis.” But many have not learned through discovering the following root meanings: itis-inflammation; emia-blood; phobia-fear; and osis-diseased or abnormal condition. Many persons deny ever having seen a trigon but know what a pentagon is. Few graduate students have learned that gon means angle, as in “agonic,” “bigonial,” “nonagon,” or indeed, “trigonometry.”

In learning to learn it is often helpful to build outlines, models, and paradigms as a way of classifying ideas. Thus one develops a ready system for filing, reclassifying, and retrieving past experience. I have found it useful to think about the communication process in terms of the following outline:

Producing Messages	Consuming Messages		
	Observing	Reading	Listening
Writing	X		
Speaking (including music)		X	
Visualizing (including plastic arts)			X

The outline shows visually that communication involves both the producing and consuming of ideas and that three pairs of associated abilities are needed: Reading-writing, listening-speaking, and observing-visualizing. One can also see that as the cells are filled in, there are many possible combinations, for example, reading and listening, and visualizing and listening.

The typical curriculum in English or reading now emphasizes reading-writing and speaking-listening, but rarely deals in depth with visualizing-observing as one of the key phases of communication. Thus many teachers ignore the pervasive, mediated experiences of television, motion picture and photographs – major aspects of the communication process. They may also ignore the creating of drama experience with the plastic arts, producing paintings, or making films.

What all learners need, then, is a well-organized, effective way to get in touch with the best ideas in the world. We might do this by listening and discussion, as did the early Greeks or the early Christians. We may learn by observing what others have visualized in paintings, drawings, photographs, motion pictures, or television.

These language skills and abilities are closely alike in some ways and have many transferable elements, and yet some sharp differences. Listening and speaking for example, are “mastered” before reading and writing, because they are closer to reality. Written words have been described as symbols of symbols.

We usually speak more simply than we read or write. It is in speaking and in listening that our patterns of language are established. Here is where the warmly emotional is communicated, the subtle nuances of feeling which are not so easily conveyed in writing and reading. It is in speaking and listening, too, that we are still struggling awkwardly to share ideas in formal and informal discussions. There always seem to be more speakers than listeners. Disciplined speaking and listening are necessary in learning how to learn.

The educated man has learned to observe people, things, and events. He has learned to observe directly as well as to learn from books and from conversation. He has mastered the habit of sizing up a situation, diagnosing it, and then planning what to do about it. We say: when you have a touch job to do, give it to

a busy man. This is not because his efficient secretary may do much of the work; it is because he has learned the art of getting things done efficiently and effectively. He has learned how to learn.

The person who has learned how to learn has these characteristics:

1. A heightened sensitivity to things that matter.
2. A feeling of continuing a cumulative power and growth in understanding.
3. The delight that comes from discovery.
4. An effective system from finding, mentally filing, and retrieving ideas.
5. Flexibility in transferring ideas from one situation to another.
6. Ease in obtaining meaning from words and images.
7. A zest for more learning.

A person who is moving toward maturity in reaching these goals has learned to be independent. He is developing a wide-ranging critical mind of his own. The disciplined mind will not be easily achieved through mere attendance at school or college; it must be actively and rigorously sought as a major goal of all education.

The thinking person has learned how to learn. He is not time-bound or space-bound. He is not provincial in his outlook, nor is he a willing slave to the comfortable routines of the present. He will find his way in a troubled and complicated world, whether the date is 1971 or 2001.

PRINCIPLES OF LEARNING

I have presented some of the characteristics of the art and science of learning how to learn. Let us now look more closely at the concept of learning and ask what the psychologists say about the factor involved in successful learning. The application of these principles to our learning or to teaching should increase the productivity of both students and learners. Clearly, materials and methods of instruction should reflect the use of these principles and thereby help students learn more, learn it faster, remember it better, and apply it more skillfully.

The generalizations about learning noted below have helped me as a teacher and as a learner. Even if criticized as being only common sense, the indictment is not severe.

1. The clearer and the more realistic and relevant the statement of desired outcomes, the more effective learning. If you cannot see the target clearly, the chances of hitting it are not good. The experimental psychologist Samuel Renshaw says, "Be sure the learner knows what is expected of him from the first."
2. We learn what we practice. The most commonly practiced skill in school and college is memorizing for temporary learning, and many students are highly proficient at it. The movement for accountability for learning outcomes is likely to sharpen objectives and to commit them more strongly to permanent learning. You cannot be accountable unless you know what your learning goals are and regularly practice the required skills.

As we study typical course outlines, we see that learning by discovery, critical reading, and discriminating judgment –the thinking processes – are commonly stated as objectives. However, we cannot learn to think or read critically without guided practice. Further, mere practice does not make perfect. You can practice error as well as accuracy. Neither does repetition ensure learning; indeed, it may cause boredom and distaste. Renshaw says, "Repetition does not produce learning,

but merely presents sufficient opportunities for the reorganization of the process through approximation and correction.”

If we learn what we practice, then we should practice in a way we wish finally to perform. Sloppy practice means sloppy learning. You cannot practice mediocrity and come out with excellence. Poor, inefficient practice may be worse than no practice at all; it is concentrated thoughtful, regular, and spaced practice that educates.

3. We need to transfer knowledge to new situations. Previous learning does not automatically transfer to new learning. For example, the professor of chemistry concerned about advancing knowledge by research in his own field may not transfer this research interest to his own teaching methods.

All of us have a large reservoir of inert knowledge, which does not help us solve new problems because we have no practiced ways of transferring this knowledge to new situations. We need guided practice in learning to transform or reconstruct our habitual way of doing things.

We can increase transfer by practicing our new learning in varied contexts, by noting many illustrations of a generalization in addition to those in the textbook. Most students, when asked to give an example of algae will usually mention algae growing in ponds. If a newly learned term or principle is to be widely transferred and become enriched with association, many applications must be noted and practiced. We use it often or we lose it.

We can increase transfer by generalizing or intellectualizing our experiences, by developing concepts, and by searching for an emerging principle. The habit of seeing relationships and unity in apparent diversity can be widely transferred. Learning by discovery gives practice in building insight.

Transfer may be thwarted by premature verbalization. We may talk too much before we act. Some overt or intuitive doing is probably a necessary condition for fruitful verbalization of principles. Dewey says, “an ounce of experience is better than a ton of theory has vital and verifiable significance... A theory apart from an experience cannot be definitely grasped even as a theory.”

4. Learning is increased by knowledge of results. If correct responses are to be awarded, the learner must get prompt, reinforcing feedback. The beginning golfer who made a hole in one asked his instructor, “What did I do right?” Learning behavior must be diagnosed and remedial measures proposed when necessary. Delayed approval or disapproval is not highly motivating.
5. There is a motivation factor in all learning. Nothing motivates like success. We learn when we are rewarded and fail to learn when we are punished. Although what is rewarding to one student may not be rewarding to another, teacher enthusiasm and peer group acceptance is generally important factors in motivation.

Immediate rewards usually produce more learning than delayed rewards, and intrinsic rewards are better than extrinsic ones. We can learn to be motivated by both present and future rewards. Immature persons must have all their rewards right now, but the mature person has learned that the future as well as the present can be rewarding.

Praise is better than scolding. Do we praise good ideas or only the absence of errors? Are we stingy with pats on the back and generous with slaps on the wrists? We need systematic plans for commending satisfying performance, and we need equally a supporting climate or learning. James

Coleman said in his report, Equality & Educational Opportunity, that “Of all the variables measured in the survey, the attitudes of student interest in school, self-concept and sense of environmental control show the strongest relation of achievement.”

If success is the best motivation for learning, then we must artfully arrange sequences of instruction for maximal success. And we must help students learn to arrange their own sequences. Perhaps, too, a “cafeteria” of learning materials will enable students to select experiences in which they can secure daily success.

We must not be beguiled by the notion that learning is a series of simple little steps, taken without references to a broad pattern and without reference to preceding material or material to follow. A well-developed programmed curriculum has been sequenced for the most productive learning. Sometimes we will have to do it on a step-by-step basis, especially when some of the steps are critical. But the most important programming for learning is self-programming, what we eventually do for ourselves.

6. We learn best what is meaningful. The most meaningful experiences provide a means to our own goals. Hadley Cantril said “No occurrence is an event for us until it has some bearing on our purposes.”
7. Most people never reach their potential. The data from measurement of mental ability and achievement are sometimes accepted as defining the upper limits of student potential. We also use these data to sort out for classify students and to explain failures on the basis of low test scores. But such data are not adequate predictors of college success. Further, low correlation between mental ability tests and creativity is not uncommon.

A major development in the future will be the discovery of undeveloped talent. For this purpose, sensitive diagnostic instruments are necessary; it is also necessary to develop educational programs based on such a diagnosis.

Given high motivation and superior teaching, notable changes can be made in student learning. This is well-illustrated in sports, where all the modern media of instruction are used to develop the potential of promising football players. These include specialized coaching, special meals, and film analysis of performance combined with extensive public praise.

Some happy day we may spend as much money developing excellent readers and writers as we now spend to develop superb athletes. When that time comes, we shall discover many later bloomers, a rich abundance of undeveloped talent.

I have stated repeatedly in this book that the environment or the atmosphere in which we learn is critically important. Learning blossoms in a mood of mutuality. Learning, after all, does not look like a textbook; it surrounds you and becomes incorporated into your life.

“Learning to Learn” and “Thinking about Thinking” were adapted from Edgar Dale, Building a Learning Environment, Phi Delta Kappa, 1972.