

# Adult Basic Education Level II & III Instructors' Handbook

December 1995 Edition

Government of Newfoundland and Labrador Division of Institutional and Industrial Education Department of Education and Training

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### 1990 Revision

ABE Revision Project Coordinator: Mildred Minty, Avalon Community College (1990)

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### 1995 Revision

# **Acknowledgements**

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# Introduction

The Adult Basic Education (ABE) Program Guides for Levels I, II, and III are supplemented by two Instructors' Handbooks. The Instructors' Handbook for ABE Level I was compiled by Susan Hoddinott. It contains a wealth of information, valuable to instructors of ABE at all levels.

This Instructors' Handbook for ABE Levels II and III is a collection of what I hope will be helpful nuggets of information garnered from many sources, inspired by many conversations with practitioners around the Province. Policy statements, Acts of the Legislature, anecdotes, experience, personal thoughts, opinions, reviewed literature, excerpts, quotes, and inspired dreams (if not divine intervention) have all provided "grist for the mill" in the production of this document. Many sections are written in the first person because I am still an instructor, and I identify with instructors in this Province. "We" are engaged in Adult Basic Education (ABE) together. I also include anecdotes, experiences and quotes from actual instructors. This handbook is grounded in the real world, as well as in adult education literature and theory.

Although it supplements the Program Guides for the revised ABE program, this handbook makes reference also to the former ABE and Basic Training for Skill Development programs. I thought it too soon to leave them out. Perhaps the "next edition" will lay them quietly to rest. In the meantime, many instructors may be helped in the transition to the new program.

This document is intended to serve many purposes. It is **not** a policy directive from the Department of Education. It is meant to provide support to practitioners in Adult Basic Education (ABE) in Newfoundland and Labrador. New instructors can use it to familiarize themselves with a basic understanding of the ABE program and some helpful organizational tactics. More experienced instructors may find selected sections, such as Professional Development, of more interest. All of the suggestions offered will not be possible, or even pertinent, for everyone. Use what works for you, in your situation.

Throughout this handbook the words student, client, and learner have been used interchangeably to allow diversity in sentence structure. Similarly, the words teacher and instructor may be interchanged. **Chapter One** describes the background and organization of the ABE System in Newfoundland and Labrador--information that all practitioners need to run their programs. **Chapter Two** delves into adult learning theory. **Chapter Three** highlights some different delivery methods and offers helpful hints for delivering your program. **Chapter Four** covers some assessment, placement, and evaluation concerns and techniques. **Chapter Five** will help you deal with the counselling aspects of your role in working with adults. **Chapter Six** discusses selection of resources for the ABE Program. **Chapter Seven** offers sources of information regarding professional development. **Chapter Eight** covers methods to offer ABE at a distance. **Chapter Nine** completes the handbook with an invitation to you to participate in ongoing program evaluation. All of this information is offered, however, with the caveat that **no handbook can provide a better guide than common sense**!

# Chapter •

## THE ADULT BASIC EDUCATION PROGRAM



### Background

### Adult Basic Education

The offering of part-time evening programs in adult basic education has existed in this province for many years. Initially, courses were offered in regular school subjects as outlined by the Department of Education. Students wrote examinations similar to those in regular school, as well as public examinations, and received a regular high school grade certificate.

In 1967, with the introduction of full-time Basic Training for Skills Development (BTSD), the Department of Education began issuing an adult basic education certificate based on three subjects - mathematics, communication skills, and science. Students receiving the certificate were eligible for admission to trades and technical programs in vocational schools. In the late 1970's, new outlines were developed especially for part-time programs.

With the introduction of the revised high school program in the early 1980's, the Adult Basic Education program was restructured to parallel this approach. In September 1983, Level III and IV were implemented. Mathematics and science were organized with DACUM charts and outlines which contained the learning objectives for each course. A flow chart and course outlines were developed for Communication Skills. In September 1984, a similar type of program was implemented for Level II. Courses in Levels III and IV were redefined in terms of credits, and a graduation requirement similar to the high school system was implemented. While the program was still focused primarily on the subject areas of mathematics, communications, and science, it also included a "general options" component and an English Literature component which allowed for a broader-based curriculum. This permitted the program to be recognized by postsecondary institutions other than vocational schools. In 1985, the Program was deemed to meet the entrance requirements of Memorial University. Subsequent negotiations were carried out with other training agencies, such as the schools of nursing, to recognize the ABE Program.

### Basic Training for Skills Development

BTSD was introduced to the Province at the Stephenville Adult Centre in 1967 and by 1970 was well established at a number of locations throughout the province. It was designed to prepare students for entry into trades and technical-training programs. BTSD was funded by the Federal Government and administered by the Department of Education. Initially, courses in mathematics, communications skills, science, and social studies were delivered in a traditional manner on a semester basis. As the program evolved, social studies was dropped because it was not a pre-requisite for any trade, and a more flexible intake/exit system was implemented. In 1970, courses were designed around six-week modules; and in 1971-72 a mastery-based individualized BTSD Program, patterned after the Saskatchewan Newstart Program, was piloted in Stephenville. Later in 1972 full implementation followed in all the adult centres across the Province. The Life Skills component of the Saskatchewan Program was not included at that time.

In 1973, the BTSD Program was completely revised by a provincial working committee. This program development was funded by the Federal Government and money was made available to produce learning activity packages. There were three basic streams (technical, biological, and

### Instructors' Handbook ABE LEVELS II & III

commercial) with grade cut-off points that were similar to the various trades and technical programs.

BTSD was a federal program and inconsistencies were soon discovered in the grade level requirements for the same trade in different provinces. Consequently, it was costing more to prepare a student in one province than in another for the same trade. In order to rectify this situation, the provinces were urged to use the **generic skills** approach to determine trade entry prerequisites. The generic skills concept, that a student do only generically what is needed to gain entry on the skill training of his/her choice, was the basis for a Training Initiatives Project acquired by the Division of Adult and Continuing Education in 1976. The BTSD Program was edited and revised jointly by the Division and the Bay St. George Community College. The Generic Skills Research, which was conducted by the Occupational and Career Analysis and Development Branch of the Canada Employment and Immigration Commission during the mid 1970's, was used to determine which parts of the program were pre-requisite for entry level to different occupational training programs. As part of the project, a life skills component was then added to the Program. Up until 1989 the curriculum and resources that were developed in this project were still being used in the BTSD Programs.

[**NOTE:** Basic Training for Skills Development is, in fact, the name Employment and Immigration Canada applies to the process of directly purchasing training seats at the academic upgrading level. In Newfoundland and Labrador, we fell into the habit of using BTSD as the colloquial name of the upgrading program which was funded by that process. Actually, the official name for our "BTSD" program has always been the Newfoundland Individualized Adult Basic Education Program (NIABE).]

### ABE Revision Project

In 1989, in response to dissatisfaction expressed by practitioners around the province, the Department of Education appointed a Review Committee comprising representatives of all the community colleges and the Department. The committee members were: Walter Smith, Eastern Community College, Chairman; Mun Batstone, Department of Education, Secretary; Shirley Crewe, Labrador Community College; Cherry Dalley, Avalon Community College;

Jim Davis, Western Community College; Cyril Farrell, Central Community College; and Wayne Taylor, Department of Education, Literacy Policy Advisor. This committee was asked to make recommendations on how to resolve the following problems:

- 1. Each basic education program in the adult education system had its own format and purpose.
- 2. The Literacy Program had no clearly written objectives. It existed as a package of resources that varied from college to college.

- 3. The BTSD program was restricted to the mathematics, communications skills, and science prerequisite to trades training.
- 4. The ABE Program had an English Literature component in addition to mathematics, communications skills, and science; and credit could be given for up to 12 general options.
- 5. Transfer credit was accepted in the ABE Program, but difficult in the BTSD Program.
- 6. Postsecondary institutes would accept one program as fulfilling entry requirements and reject another--even though the content was largely the same.
- 7. This duplication of services resulted in unnecessary costs.

The Review Committee toured the province, soliciting discussion from practitioners in all the ABE programs offered at the postsecondary institutions. That process culminated in the recommendation to consolidate the various programs into one, consisting of Levels I, II, and III, to encompass and integrate the Literacy, ABE, and BTSD programs, as follows: Level I relating to Literacy, Level II relating to an equivalent program of study between Literacy and high school, and Level III relating to a high school equivalency. The Review Committee felt that this revised approach would eliminate duplication of effort, lack of continuity within programs, and non-conformity among programs, leading to a more functional and standardized ABE Program for the province.

On the recommendation of the Review Committee, the Department of Education tendered the contract to revise the ABE program within the community college system. Subsequently, the contract was awarded to Avalon Community College. To develop the learning objectives, Avalon Community College appointed working committees to: (1) examine the offerings in ABE and BTSD both in this province and in samples obtained from other provinces, and other countries, and (2) propose objectives for the revised program. Each committee comprised experienced practitioners from the former ABE and BTSD programs, the high schools, and other postsecondary institutions. As is commonly done in a DACUM process, index cards were used to record ideas in a brainstorming process. General topics were refined into learning objectives through discussion and group consensus. Further refinement and validation resulted in the objectives now offered in the ABE Program Guides.

### Purpose

The revised ABE program was designed with the intent of providing adults who have not completed high school with the opportunity of acquiring a **solid**, **high quality educational background** to allow them to function in our society, and to access avenues to further education, training, employment, and personal enrichment. It encompasses and integrates the former Literacy, ABE and BTSD programs into a more consistent and comprehensive curriculum.

### Underlying Assumptions of the Revision Teams

Although the Departmental guidelines for ABE are expressed at the general learning objective level only, and are in no way prescriptive regarding delivery methods, the working groups tried to picture "real-life" scenarios as much as possible in developing the course outlines. For example, though a course may be offered in an individualized, self-paced manner, the committees tried to include an amount of material which could also be covered reasonably in roughly seven weeks, or a half-semester, in a part-time group setting (that is, three hours per week) or in two weeks in a full-time, day-time setting for <u>each</u> credit. The committees felt that Level II might take a year to complete in classes at night, part-time, but should take six to eight weeks full-time. This estimation, of course, is subject to great variation, depending upon the interests and abilities of the learners involved, and the delivery methods used.

Another assumption guided decisions about recommended resources. The committees' work would have been made a great deal easier if they had simply taken one resource text for each course and written objectives to fit that text. The committees, however, assumed that such an approach would be too restrictive and too soon out-dated. There is so much variation in learner's abilities and preferred learning styles, in resources available in different centres, and in instructors' preferred approaches, that the committees wanted to provide general objectives which could be covered in many ways, using many resources. Similarly, learning activities were not prescribed. The committees hoped that this approach would allow ABE practitioners a greater degree of flexibility in responding to each learner's individual needs.

### Change in Philosophy

As described above, the BTSD program was the first program in Canada to adopt the **generic skills** research described by Smith (1976). Prevalent education and training theory, however, stresses the importance of providing more rounded basic educational opportunities to prepare people to cope with the pressures of information technology and a fluid labour market. "Today's workplace demands not only a good command of the three R's, but more.

Employers want a new kind of worker with a broad set of workplace skills--or at least a strong foundation in the basics that will facilitate learning on the job." (Carnevale, Gainer, & Meltzer, 1990, p.2). Problem solving, creative thinking, and "learning how to learn" are the essential basic skills, not memorization and specialization. Confidence, independence, and the ability to seek and use many learning resources are desirable attributes to foster in adult learners. For this reason, the Department has not produced the specific learning activity packages or generic skills charts for entrance into trades programs which characterized BTSD. Former ABE instructors will not find the new program such a drastic change as will those who have taught mainly in the BTSD Program.

### Position of ABE in Department of Education

When the community college system was created, administration of adult basic education programs was shifted from the Department of Education to the colleges, and the former Division of Adult and Continuing Educations ceased to exist. The Advanced Studies Branch of the Department of Education and Training now sets guidelines for the Adult Basic Education Program which is delivered and administered at the colleges. The ABE Provincial Standing Committee, made up of a representative from each of the five public colleges and a Program Consultant from the Department, sets policy and reviews the program.

### Department Responsibilities/College Responsibilities

The <u>Act to Establish a Community College System in the Province</u> (1987), gave each community college the autonomy and the responsibility to "operate facilities which, in order to meet the needs of adults in the region, shall provide programs of instruction leading to a certificate from the college" (section 3(2)(a)). It is the duty of a college's Board of Governors "to grant certificates for courses and programs of study", (Section 15(a)). In other words, though the Department can set objectives for a provincial program, by law it is the responsibility of the Institutions to deliver and certify completion of the programs it offers. The Department will, therefore, not impose evaluation standards and measures upon the community college system.

### **ABE Framework**

The revised ABE Program has three Levels, as indicated in the following framework:

ABE Level I Communication Skills, including: ABE Level I Writing Oral Communications Mathematics Science General Knowledge

### INSTITUTIONAL CERTIFICATION

	Communication Skills, including:
ABE Level II	Reading
	Writing
	Spelling
	Oral Communications
	Study Skills
	Mathematics
	Science
	General Options (Level III credits)

### INSTITUTIONAL CERTIFICATION

	36 credits required, including:
ABE Level III	Minimum of 6 Communication Skills
	Minimum of 6 Mathematics
	Minimum of 6 Science
	Minimum of 4 Employability Skills
	Plus 4 additional credits from the above
	Maximum of 10 General Options (may include
	equivalency and maturity credits)
	1 5 5 7

### INSTITUTIONAL CERTIFICATION

### **Content Areas**

For Level II, courses are outlined in the ABE Program Guide in three content areas: Communication Skills, Mathematics, and Science. This represents a departure from Levels I and III. For Level I it is recommended that students acquire the **reading** and **writing** skills associated with literacy in the **context** of several content areas, including general knowledge areas such as government, law, history, and consumer education. Level III also covers such topics in courses for credit in the General Options component. However, Level II does not include them. Level II is meant to provide a transition between the literacy skills adults need to function in our society and the skills associated with high school completion. Level II courses are not credit courses as are those of Level III. For this reason, Level II was not expanded to include general knowledge objectives, which would lengthen the time to complete the program. Instead, Level II students are permitted to work on Level III General Options or Employability Skills courses for credit towards Level III certification **while** they are enroled in Level II, if they so desire. Objectives for content areas such as democracy, law, history, and consumer education may be found in the Level III Program Guide.

### Credit System

Levels I and II do not rely upon accumulation of credits for certification. If students are competent in those areas covered by the learning objectives, institutions may award a completion certificate for each level. However, certification of completion of Level III requires the accumulation of <u>36 credits</u>.

A credit is awarded for covering a block of content as represented by a stated range of learning objectives. Courses described for Level III have been assigned credit values by the revision committees who designed them. The second digit of the course number indicates the number of credits assigned to that course. Level II courses, though similarly presented to those of Level III, do not have a credit value, and consequently all have 0 as the second digit.

### Accumulation of Credits

Credits may be accumulated by ABE students in a number of different ways:

1. Completion of each ABE course described in the ABE Level III Program Guide accrues the number of credits assigned to that course, as indicated by the second digit of the course number.

Example: Completion of IM 3211 gives two credits of the 36 required.

2. Equivalency credits will be awarded for courses successfully completed under the former ABE

program or BTSD program, and through the present provincial high school program. Credits previously accumulated will be translated directly into ABE credits in the **same content area** on a **one-for-one** basis. For high school courses completed **before** the reorganization in **1982**, one grade 10 or 11 High School Course in Mathematics, English, and Science will be equated to **four** ABE credits. In the case where Mathematics or English were divided into two parts worth 100% each (Math A/B, or Algebra/Geometry, or Language/Literature) **two** credits will be given for each section completed. All other High School Courses (Geography, for example) will be equated to **two** General Options credits. For ABE and BTSD courses completed **before 1983**, these courses will count as ABE credits on the same basis as High School Courses, where Grade Levels are quoted.

Examples: (1) a student who has accumulated 18 credits in the high school program can have 18 credits toward ABE Level III certification; (2) a student who has completed a high school credit such as Math 1203 will carry over the two credits from high school, and be exempted from doing the equivalent ABE courses (IM 3211, IM 3212, and IM 3116 in this example) as indicated by the Course Comparison Matrices on page 27. A maximum of 10 General Options credits may be transferred from the high school program.

[NOTE: See Chapter 3, pages 72-87 for detailed examples].

- 3. Equivalency credits will be awarded for courses previously completed in content areas outside those described by Level III of the revised ABE program. For example, driving courses, apprenticeship programs, courses in other languages, and so on, may be awarded credit as General Options courses. Such courses must entail a minimum of 60 hours of learning time, and students must offer certified proof of completion of the course's objectives to be allowed one equivalent credit. Courses of less than 60 hours duration can be combined in order to qualify for the equivalent credit; however, all regulations regarding proof of completion of the courses' objectives must be followed. Each multiple of the minimum may be awarded an additional equivalent credit, up to a maximum of 10 General Options credits.
- 4. <u>Equivalency credits</u> will be awarded as an incentive to those students who have completed Level II to continue with Level III. Such students will be awarded one General Options credit for every **five** ABE Level II courses successfully completed, to a **maximum** of **four** credits. This does not apply to courses completed by challenge exams. If all 19 Level II courses are completed, four credits are allowed.
- 5. <u>Maturity credits</u> will be awarded in recognition that experience in the adult world can produce competence and understanding equivalent for some purposes, and to varying degrees, to that which might have been gained through formal education. Maturity credits will be awarded to all students <u>over age 21</u>, at the rate of one credit for every two years <u>beginning at age 19</u>, up

to a <u>maximum of 5 maturity credits</u>. Maturity credits must be awarded within the General Options category and are not to be considered as additional credits.

### **Certification**

In selecting courses within Level III, students should make sure they fulfil the following credit requirements for certification:

Minimum of 6 Communication Skills credits Minimum of 6 Mathematics credits Minimum of 6 Science credits Maximum of 4 Employability Skills Plus 4 more selected credits from the above Maximum of 10 General Options credits Minimum of 36 Total credits.

For those students who are awarded a large number of equivalent credits from outside the ABE system (for example, a student who dropped out of regular high school in grade 12/Level 3), a minimum of <u>six</u> credits must be attained through completing Level III ABE courses in order to receive an ABE Level III certificate. This would include a minimum of 4 courses in Math, Communication Skills, and/or Science.

Students who meet the above criteria can then be issued a Level III Adult Basic Education Certificate by your institution. The Department of Education does not offer the completion certificate (in accordance with the Community Colleges Act).

A student who wishes to do less than six credits, for example a person who wants to do an ABE mathematics course as a refresher before entering university, may do so at the discretion of your institution. This student would not, however, be eligible for an ABE Level III certificate unless six credits were completed.

### Credit Transfer/Equivalent Credit Assessment

To help you make your decisions and change your records to the terminology of the new program, the following Course Comparison Matrices were prepared. Compare what each student has done against its equivalency in the revised ABE program, and consider it completed for record-keeping purposes. Keep in mind, however, that the content is not a perfect match. In terms of pre-requisites for other courses, students may not have exactly the full background required to move into the new program and may need some extra help during the transition period. For example, Chemistry for BTSD students would be such a case.

If the student has completed courses in high school, you can transfer credits on a one-for-one basis in the appropriate content area. For example, science credits from high school translate into the same number of science credits in ABE, whether there are or are not equivalent ABE courses. For example, Environmental Science 3205 and Biology 3201 could both be transferred as two ABE credits. Keep in mind the restriction on General Options: the maximum is 10.

[**NOTE:** For information on transfer of credit in Newfoundland and Labrador Public Postsecondary Institutions see the 1994-1995 **Transfer Guide** published by Newfoundland and Labrador Council on Higher Education, Department of Education and Training.]

F

### ABE LEVEL II COURSE COMPARISON MATRIX

1

Revised ABE Course Name & Number	Former ABE Course Number	BTSD Course Number
IC 2011 Study and Research Skills	Former ABE Level II	C-5
IC 2012 Vocabulary	Former ABE Level II	C-1, C-2, C-14
IC 2013 Reading Comprehension	Former ABE Level II	C-4, C-8, C-11
IC 2014 Literature	Former ABE Level II	
IC 2015 Writing Skills	Former ABE Level II	C-3, C-7, C-17, C-18
IM 2011 Whole Numbers	5001	M-1
IM 2012 Fractions	5001	M-2
IM 2013 Decimals	5004	M-3
IM 2014 Percent	5023, 5024	M-4
IM 2015 SI Measurement	5003	M-5
IM 2016 Introductory Geometry	5026, 5028	M-10, M-11
IM 2017 Introductory Statistics	5021	M-9
IM 2018 Introductory Algebra	5025	M-13
IM 2019 Word Problems		

Revised ABE Course Name & Number	Former ABE Course Name & Number	BTSD Course Name & Number
IS 2011 Introduction to Science	6001, 6002	
IS 2012 Health	6006	S-5
IS 2013 Matter		S-10
IS 2014 Energy	6003, 6004, 6005	S-7. S-9, S-12
IS 2015 The Planet Earth	6007	

### ABE LEVEL II COURSE COMPARISON MATRIX

lease note the following: There are <b>5</b> subject areas covered by the attached matrices. These matrices are up-to-date to <b>October 1995</b> .
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**ABE LEVEL III COURSE COMPARISON MATRICES** 

alent under "current ABE", then the student may qualify for general options credits. General options credits are not to exceed 10 - this includes maturity and equivalency credits. *с*і

Courses in the high school prior to 1982 (in Math, English, and Science) are worth 4 credits each, unless otherwise indicated. Courses in other subject areas (Geography, French, etc.) are worth 2 credits each. 4.

For BTSD courses, former ABE courses (including 1990-1991 edition), and current high school courses, taken has the same credit value transferred into the current ABE program. Examples: CS 3<u>2</u>15 is worth credits will be transferred on a "one-for-one" basis. This means that the credit value of each course 2 credits, Language 3<u>1</u>01 is worth 1 credit, C9 + C12 are worth a total of 2 credits.

For the International Correspondence School's High School Program (ICS High School) credits are indicated. Because there is some overlap in the equivalency between these and the current ABE program, the equivalencies are given in [square brackets].

- Current high school courses with a third digit of "9" are transfers in from other provinces for which there are no exact equivalents. <u>ى</u>
- Current high school courses with a third digit of "6" are modified courses. . ق
- Current high school courses with a third digit of "8" are enriched courses.

# ABE LEVEL III GENERAL OPTIONS COURSE COMPARISON MATRIX

Currents ABF Course	Former ABF Course		BTSD Course	Current High School Course	Old High School Course	ICS High School
(revisions to be implemented in 1995)	'90 - 94	Prior to 1990		(not including recent MPEF revisions)	(Prior to '82)	
IG 3211 NF & LB Culture	GO 3211 NF & LB Culture			1200 Cultural Heritage		
IG 3114 Canadian Issues	GO 3114 Canadian Issues			1201 Canadian Issues	Canadian Issues 10 (2 credits)	-
IG 3215 Family Studies	GO 3215 Family Studies			2200 Family Living		
IG 3118 Individual Study	GO 3118 Individual Study	4209	-			-
IG 3119 Canadian Law	GO 3119 Canadian Law			2104 Canadian Law		
IG 3120 Democracy	GO 3120 Democracy			2102 Democracy		I
IG 3221 Human Geography	GO 3221 Human Geography			3202 World Geography	Geography 11 (2 credits)	1
IG 3217 Contemporary History	GO 3222 Contemporary History			3201 World History	History 11 (2 credits)	MH07 World History (2 credits)[G O 3222] <u>or</u> P51 Canadian History (2 credits)[GO 3222]
IG 3116 Women's Studies	GO 3123 Women's Studies	I		-	-	1

ABE courses are sequenced in accordance with the equivalent courses from the high school system to facilitate credit transfer.
ABE LEVEL III GENERAL OPTIONS COURSE COMPARISON MATRIX (Continued)

Current ABE Course	Former ABE Course		BTSD Course	Current High School Course	Old High School Course	ICS High School
(revisions to be implemented in 1995)	<b>'</b> 90 - 94	Prior to 1990		(not including recent MPEF revisions)	(Prior to '82)	
IG 3113 World Religions	GO 3124 World Religions	ł		3100 Religious Studies	½ of Religious Education III 11 (Western Religions)(2 credits)	
IG 3112 Physical Education	GO 3125 Physical Education			1100 Physical Education	Physical Education 10 (2 credits)	
				3204 World Problems	W orld Problems 11 (2 credits)	
				1290 Social Studies	Geography 10 (2 credits)	
1				2103 Canadian Economy		
				3190 Economics	<pre>&gt; Economics + I (2 credits)</pre>	
1				2100 French		
		1		2101 French	<pre>&gt; Frencn 10 (2 credits)</pre>	-
-				3200 French	French 11 (2 credits)	
				2200 Art & design	Art 10 (2 credits)	
				3200 Art & Design	Art 11 (2 credits)	
-				1100 Foods		
				1101 Clothing	<ul> <li>Home Economics 10</li> <li>(2 credits)</li> </ul>	
-				3100 Nutrition		
-		1		3101 Textiles	Home Economics 11 (2 credits)	
-		-				MN00C Human Relations (1 credit)[no equiv.]

Current ABE Course	Former ABE Course		BTSD Course	Current High School	Old Hiah	ICS High School
(revisions to be implemented in 1995)	<b>'90 - 94</b>	Prior to 1990		Course (not including recent MPEF revisions)	School Course (Prior to '82)	
IC 3113 Evaluative Comprehension	CS 3113 Evaluative Comprehension	4101	C-13	1101 Language		
IC 3214 A/B Oral Communications	CS 3214 A/B Oral Communications	4204	C-9, C-12		> English 10 (4 credits)	I
IC 3218 A/B Introduction to Literature	-	4208	ł	2201 Literacy Heritage <u>or</u> 1200 Thematic Literature		
IC 3211 Basic Grammar	CS 3211 Basic Grammar	4100	C-16			M37HC Writing for Success (2 credits)[CS 3211] <u>or</u> 97A English (3 credits) [CS 3211 + CS 3116]
IC 3215 Research Writing	CS 3215 Research Writing	4203	C-18, C-21	2101 Language		
IC 3116 Business Communications	CS 3116 Business Communications	4205	C-14, C-16, C-19	3102 Business English		97A English (3 credits) [CS 3116 + CS 3211]
IC 3117 Vocational English	CS 3117 Vocational English	4106	C-9, C-12, C-18	2102 Vocational English		-
IC 3219 Newfoundland Literature	CS 3219 Newfoundland Literature	4215				
IC 3220 Canadian Literature	CS 3220 Canadian Literature			2204 Canadian Literature		
IC 3112 Writing Skills	CS 3112 Writing Skills	4102	C-17, C-20	3101 Language		

# ABE LEVEL III COMMUNICATIONS SKILLS COURSE COMPARISON MATRIX

-			
<ul><li>&gt; English 11</li><li>(4 credits)</li></ul>			
3201 Thematic Literature <u>or</u> 3202 <u>or</u> 3203	3103 Advanced Writing	3104 Language Study	
-			
CS 3318 Introduction to Literature (formerly CS 3221)			
IC 3321 Optional Literature	1	-	

### ABE LEVEL III SCIENCE COURSE COMPARISON MATRIX

Current ABE Course	Former ABE Course		BTSD Course	Current High School	Old High School	ICS High
(revisions to be implemented in 1995)	'90 - 9 <b>4</b>	Prior to 1990		Course (not including recent MPEF revisions)	Course (Prior to '82)	School
IB 3211 Cytology	B 3111 Cytology	6125	S-20	2201 Biology	> Biology 10	075 General Science
IB 3212 A/B Living Things	B 3212 A/B Living Things	6128	S-21, S-22	2201 Biology	(4 creats)	(4 credus) [B 3212 A/B + S 3213]
IB 3113 Ecology	B 3113 Ecology	6128	S-23	3201 Biology		
IB 3115 Evolution	B 3114 Evolution		1	3201 Biology	> Biology 11	M45HC Biology
IB 3214 Genetics	B 3115 Genetics	1	S-24	3201 Biology	(4 creats)	(z creaits) [B 3114 + B 3115]
IB 3316 Human Systems	B 3316 Human Systems	6132	S-4, S-25	3201 Biology		
IS 3211 Oceanography	S 3211 Oceanography	l	1	I	1	l
IS 3212 Geology	S 3212 Earth Science	1	-	3203 Geology	Earth Science 11 (4 credits)	ł
IS 3213 Physical Science	S 3213 Physical Science	6122, 6005, 6130	S-10, S-12, S-18	2205 Physical Science	Physical Science 10 (4 credits)	075 General Science (4 credits)

[S 3213 + B 3212 A/B]	
	IS 3215 Life Science

Current ABE Course	Former ABE Course		BTSD Course	Current High School	Old High School	ICS High
(revisions to be implemented in 1995)	<b>'90 - 94</b>	Prior to 1990		Course (not including recent MPEF revisions)	Course (Prior to '82)	School
IS 3214 Environmental Science	S 3214 Environmental Science			3205 Environmental Science		
IH 3111 Introduction to Chemistry	C 3111 Introduction to Chemistry	6122	S-10	2202 Chemistry	1	1
IH 3112 Chemical Language	-	6126	S-10, S-17	2202 Chemistry	1	-
IH 3113 Reactions & Equations	-	6126	I	2202 Chemistry	I	1
IH 3114 The Mole & Stoichiometry	C 3113 The Mole & Stoichiometry	6134	-	2202 Chemistry		
IH 3215 Chemical Bonding	C 3114 Chemical Bonding	6126	ł	3202 Chemistry		
IH 3116 Solution Chemistry	C 3115 Solution Chemistry	6126	S-8, S-11	3202 Chemistry	Chemistry 10 and 11	
IH 3117 Rates, Reaction & Equilibrium	C 3116 Rates, Reaction & Equilibrium	1	S-17	3202 Chemistry	" (4 creats each)	1
IH 3118 Acids and Bases	C 3117 Acids and Bases	6126	-	3202 Chemistry		

ABE LEVEL III SCIENCE COURSE COMPARISON MATRIX (Continued)

Transfer Guide will show (4 credits) not (4 credits each).

## ABE LEVEL III SCIENCE COURSE COMPARISON MATRIX (Continued)

Current ABE Course	Former ABE C	ourse	BTSD	Current High School	Old High School	ICS High School
(revisions to be implemented in 1995)	<b>'90 - 94</b>	Prior to 1990	Course	Course (not including recent MPEF revisions)	Course (Prior to '82)	
IH 3119 Organic Chemistry	I			*	1	-
IH 3120 Electrochemistry	I	1	1	*	1	1
IP 3215 Mechanics I	P 3111 Mechanics I	6124	S-15	3204 Physics		
IP 3216 Mechanics II	P 3212 Mechanics II	6005	S-12, S-15	3204 Physics	<ul><li>&gt; Physics 10</li><li>(4 credits)</li></ul>	-
IP 3213 Waves	P 3214 Waves	6130	S-18, S-19	2204 Physics		
IP 3111 Electricity I	P 3115 Electricity I	6123	S-19	3204 Physics	<ul><li>&gt; Prnysics 11</li><li>(4 credits)</li></ul>	1
IP 3112 Electricity II	P 3116 Electricity II	6129	S-16	3204 Physics		
	I		l	2203 Earth Science	Earth Science 10 (2 cr. General Options)	ł
	I		1	3290 Physical Science	Physical Science 11 (2 cr. General Options)	I
IP 3214 Fluids and Heat	P 3113 Fluids and Heat	6121, 6127	S-9, S-14	1	Physical Science 10 (4 credits)	075 General Science (4 credits) [S 3213 + B 3212 A/B]

Students that complete the high school Chemistry 3202 must do one elective unit in carbon chemistry or electrochemistry or nuclear chemistry. Students that complete the first elective should be awarded credit in ABE for IH 3119; students that complete the second elective unit should be awarded credit for IH 3120. (\*)

ABE LEVEL III MATHEMATICS COURSE COMPARISON MATRIX

Current ABE Course	Former ABE Cours	6 6	BTSD Course	Current High School Course	Old High School	ICS High School
(revisions to be implemented in 1995)	<b>'90 - 94</b>	Prior to 1990		(not including recent MPEF revisions)	Course (Prior to '82)	
IM 3101 Algebra Readiness						
IM 3102 Geometry Readiness						
IM 3109 Algebra I	M 3211 Algebra I	5142, 5183	M-13, M-14, M-15	1300 Mathematics <u>or</u> 1203 Academic Math		
IM 3210 Algebra II	M 3212, Algebra II	5143, 5147	M-14, M-17	1300 Mathematics <u>or</u> 1203 Academic Math	<ul><li>Matriculation Math 10 (4 credits)</li></ul>	-
IM 3114 Geometry I	M 3116 Geometry I	5148	M-10	1300 Mathematics <u>or</u> 1203 Academic Math		
IM 3211 Algebra III	M 3213 Algebra III	5162, 5163	M-15, M-17	2200 Mathematics <u>or</u> 2203 Academic Math		
IM 3115 Geometry II	M 3117 Geometry II			2200 Mathematics <u>or</u> 2203 Academic Math		
IM 3212 Algebra IV	M 3214 Algebra IV	5183	M-15	3200 Mathematics <u>or</u> 3203 Academic Math	<ul><li>Matriculation Math 11</li><li>(4 credits)</li></ul>	M98JC Geometry (1 credit) [M3118]
IM 3213 Algebra V	M 3215 Algebra V	5182	M-17	3200 Mathematics <u>or</u> 3203 Academic Math		
IM 3216 Trigonometry	M 3120 Trigonometry II	5161, 5181	M-16	3200 Mathematics <u>or</u> 3203 Academic Math		
IM 3219 Advanced Algebra III		-		3201 Advanced Math		
IM 3218 Advanced Algebra II				2201 Advanced Math	> Honors Math 11 (4 credits)	I
IM 3221 Advanced Geometry II			ŀ	2201 Advanced Math		

ABE LEVEL III MATHEMATICS COURSE COMPARISON MATRIX (Continued)

Current ABE Course	Former ABE Cours	Se	BTSD Course	Current High School Course	Old High School	ICS High School
(revisions to be implemented in 1995)	<b>'90 - 94</b>	Prior to 1990		(not including recent MPEF revisions)	Course (Prior to '82)	
IM 3217 Advanced Algebra I	1	1	1	1201 Advanced Math	Honors Math 10 (4 credits)	1
IM 3220 Advanced Geometry I	I		ŀ	1201 Advanced Math	Honors Math 10 (4 credits)	-
IM 3203 Consumer Math	M 3222 Consumer Math	5141	1	1202 Consumer Math	Basic Math 10 (4 credits)	I
IM 3204 Practical Math I	M 3223 Practical Math I	5144, 5145, 5146	M-18, M-11, M-13, M-14	2202 Vocational Math		M99RC General Math II
IM 3205 A/B Practical Math II	M 3224 A/B Practical Math II			2202 Vocational Math	1	[czzcw](sinaicz)
IM 3106 Business Math I	M 3225 Business Math	5164	M-18			
IM 3207 Business Math II	M 3226 Business Math II	5164		⟩ 3202 Business Marn	-	
IM 3208 Statistics	M 3227 Statistics		-	3104 Statistics	-	1
IM 3222 Calculus Readiness	-			3105 Calculus Readiness		M40HC General Math I (2 credits)[no equiv.]

# ABE LEVEL III EMPLOYABILITY SKILLS COURSE COMPARISON MATRIX

ICS High School				1	
Old High School	Course (Prior to '82)				
<b>Current High School</b>	Course (not including recent MPEF revisions)	2206 Computer Studies	3101 Career Education		1202 Consumer Studies
BTSD Course		-	-	l	
	Prior to 1990	5165			
Former ABE Course	'90 - 9 <b>4</b>	GO 3113 Computer Studies	GO 3216 Career Awareness	GO 3217 Personal Development	GO 3212 Consumer Studies
Current ABE Course	(revisions to be implemented in 1995)	IE 3212 * Computer Studies	IE 3213 Career Awareness	IE 3214 Personal Development	IE 3211 Consumer Studies

\* Note: Transfer Guide will show IE 3112 not IE 3212.

### Initial Placement of Students in the ABE Program

Perhaps the most confusing stage you will share with a prospective ABE student will be your initial assessment of what that student brings to the program, what credits you can give at the start, and what to counsel the student to do next. A preregistration placement interview is imperative, especially for part-time students. You do <u>not</u> want to see students register for courses for which they do not have the prerequisite background or which they will not need for their future plans, nor should students have to cover material which they have already mastered.

For your preliminary counselling session, you will need information on the following:

- 1. the student's educational background
  - (a) last grade completed in day school
  - (b) transcript of credits attained in high school
  - (c) transcript of ABE or BTSD credits previously completed
  - (d) certification of completion of other courses (eg. first aid, apprenticeship, etc.)
  - (e) the interpretation of results of diagnostic procedures and/or entrance assessment (eg. TABE, CAAT) if this has been done. (Procedures may vary from college to college).
- 2. the student's aspirations for further education or career choice.

Use this information to help you decide which level the student should enter. For example, a student who left school before completing junior high, and who reads at a low level, for example, should be advised to enter Level II. However, a student with previous high school or adult education courses may have the skills and confidence to enter Level III directly. Decide how many equivalent credits such a student can be given for high school, ABE, BTSD, and other courses, by following the Credit Transfer guidelines. Use the Course Comparison Matrices to determine exemptions. Award maturity credits if appropriate.

Next, consider the student's abilities and interests. Use the calendar of course descriptions in Appendix A to help the student to select courses. A student with poor reading, organizational, and personal development skills should be counselled to take ABE courses which contain corresponding objectives. On the other hand, a student intending to enter an engineering technology program will need to take extra math and science courses, and the computer course as well. Plot a path for the student to proceed through the courses which will benefit him/her the most. Choose a route which will address basic needs first, and which will allow success to build upon success. A summary chart and some sample scenarios are worked out for you in Chapter 3, pages 70-87.

Accepting and placing a learner in your ABE program is the beginning of a journey for both of you. The itinerary of that journey will differ for each learner you accompany. Consider the following chapters in this handbook to be a travel guide to help you navigate through ABE.



The wealth of research done on characteristics of the adult learner and on learning styles can provide tremendous insights into how to motivate and facilitate learning in our ABE program. I have provided an annotated bibliography in Chapter 8, page 155. It lists references which deal with adult learning. I have summarized below some of the points discussed in the literature.

### Andragogy versus Pedagogy in Practice

Most instructors in adult basic education arrive there indirectly. Many have experience in the secondary or even elementary systems. Consequently, they bring many routine practices which served them well, or were required, in dealing with children and adolescents. Classroom techniques or issues which may have been high profile in dealing with children, for example discipline and truancy, inevitably change when dealing with an adult population. The National Center for Research in Vocational Education (1987a) pointed out that *"many instructors who have taught secondary students...have developed a particular mind-set about the instructor-student relationship, and it usually has to do with authority. These teachers tend to view themselves, perhaps subconsciously, as authority figures, and students as subordinate; themselves as older and wiser, the students as young and inexperienced; themselves as the leaders, the students as followers", (p. 24). Working with adult learners should soon dispel such preconceptions, however.* 

As Hiemstra and Sisco (1990) reminded us, *"adults as learners are not simply 'big kids".* (p. 21). They have multiple roles and responsibilities. They have accumulated many life experiences. They continue to move through physical, psychological and social phases which influence their learning. They may experience anxiety and ambivalence in their orientation to learning.

Malcolm Knowles is variously praised and blamed for adding to "edu-babble" by making a distinction between the teaching of children, "**pedagogy**" and the teaching of adults "**andragogy**". In fact, the derivation of the term andragogy comes from the Greek word for "man", rather than adult, so you may or may not think it an appropriate term! Whatever the jargon, however, there are certain teaching practices which are recommended for adult learning situations. I think they are perhaps just "plain good teaching", which can work well with children also. Below I have collected from the literature some pointers you might like to consider in managing the adult learning process:

- 1. Appreciate adults for the wide range of experience and interests they have accrued over the years. They have valuable insights to share. They are not blank slates or empty vessels, but may be familiar with many subjects.
- 2. Help them develop self-motivation and independence in working for what they want.
- 3. Deal with the whole person. The pursuit of education is just one facet of an adult's life--family responsibilities, employment, health or financial problems may take precedence over their work in your class. Consider the learner's background, cultural heritage, and native language.

- 4. Treat adult learners with respect, as your equal. Establish a comfortable rapport. For example, use their first names and have them use yours. Do not act as the absolute authority. Share information with them about your experiences and opinions.
- 5. Arrange the physical surroundings in a comfortable, non-threatening way--get away from the traditional school look. Consider the physical needs of your students. Keep in mind the natural physical stages of maturation, such as vision or hearing changes.
- 6. Facilitate adult independence. Involve learners in goal setting and making decisions. Help them learn how to learn--how to use resources, information sources, and study skills. Be a role model by admitting you do not know everything and searching for information or solutions to problems with them.
- 7. Provide support by being a friend and counsellor. Help students find community resources when they need them. Be an advocate when necessary, to ensure that your students do not get lost in bureaucracy.

### Domains of Learning

Bloom (1956) categorized the variety of activities involved in human learning into three **domains** of **mental activity**. The **cognitive** (thinking/knowing) domain comprises activities that vary in complexity from simple recall of material to original and creative ways of combining and synthesizing new ideas. Cognitive domain skills include knowledge, comprehension, application, analysis, synthesis, and evaluation. **Psychomotor** (physical) skills are used to learn how materials and objects can be manipulated, and how to perform tasks. The **affective** (attitudinal) domain comprises skills and processes that people use to deal with their feelings, emotions, or degree of acceptance or rejection. Affective domain skills include receiving, responding, valuing, organizing, and characterizing.

### Learning Styles

There is great variety in the ways in which people learn and respond to learning environments. We, in adult basic education, see evidence of that concept on a daily basis! Various taxonomies have been advanced to categorize different styles of learning. Whatever theory we

espouse, one implication for consideration on the part of ABE practitioners is that no <u>one</u> method of delivery, learning environment, or set of reference materials is going to work for <u>all</u> ABE students, or even for one student all the time.

While many people respond well to the traditional approach of receiving information from printed

matter, and proving retention of the concepts through pen-and-paper exercises, there are many who do not. The learning process is complex and comprises many interrelated stages and phenomena. Our adult students vary a great deal in their strengths and limitations. Some are inclined toward reflection, others to action. Some exhibit predominantly divergent thought processes, others convergent. Some are visual learners, but others respond better to auditory, psychomotor, or tactile learning activities. In the next section, I summarize some different theorists' work on categorizing the ways in which people perceive and process information.

### Categories

The National Center for Research in Vocational Education (1987a) categorizes learning styles, in terms of **sensory preference**, into three subgroups (modalities): auditory, visual, and kinesthetic-tactile. Although there are several prepared instruments for assessing preferred learning styles, most adult educators gain a feel for sensory preferences by observing and getting to know their students. Some behaviours you can use to tentatively identify the learning modality preferences of your students based on this classification are listed below:

### The Kinesthetic-Tactile Learner

- · Doesn't like sitting still; gets fidgety during lectures
- Likes to touch people and things
- Often learns best by doing
- May enjoy taking notes (the act of)
- Quite likely is well-coordinated; may be an athletic type
- Likes to disassemble things and try to put them back together

### The Visual Learner

- Enjoys looking at and/or reading books
- Often learns better by demonstration
- Is sometimes a good detail "person"
- · Is not particularly talkative in class; uses words sparingly
- Often has some degree of artistic ability
- May have difficulty in learning and speaking other languages
- Often likes to work puzzles

### The Auditory Learner

- Is often a "talker"
- Likes to tell jokes and long, involved stories
- Remembers spoken material better than visual material
- Likes music; often knows the words to many songs
- Sometimes has poor spatial perception; may get "turned around" in unfamiliar surroundings

- Is not the world's best writer or artist; hand-writing may be unintelligible--the proverbial "chicken-scratcher"
- Is sometimes physically awkward

Another classification of learning styles is described in terms of how people **perceive** information. "A **field-independent** learner characteristically approaches learning in an **analytic** way, separating the elements of a learning task from its background or field", while a "**field-dependent** learner characteristically approaches learning tasks in a **global** sort of way, viewing the task as a whole, rather than separating parts from the field. Such learners are dependent upon the field to make sense of the problem." (The National Center for Research in Vocational Education, 1987a, p. 26). You may find that your preferred teaching style does not coincide with a student's perceptual style. For example, you might prefer to analyze and present the solution to a problem in rationale, sequential steps. However, some students may not see the point, and may need to consider the whole problem in context before they can relate to it. If you find that a "tried'n'true" technique for explaining a concept suddenly does not work, it may be due to variation in individual learning needs. Consider shifting to a different presentation for that student.

Kolb (1984) described an **integrated perspective**, combining experience, perception, rognition, and behaviour, in his work on **experiential learning**. He categorized learners as convergers, divergers, assimilators, or accommodators, and attributed the following characteristics to each:

### Converger

- best at finding practical uses for ideas and theories
- · able to solve problems and make decisions based on finding solutions to questions
- would rather deal with technical tasks and problems than with social and interpersonal issues
- · effective in specialist and technology careers

### Diverger

- best at viewing concrete situations from many different points of view
- approach situations by observation rather than action
- enjoy situations that call for generating a wide range of ideas, as in brainstorming
- may have broad cultural interests
- likes to gather information
- · effective in arts, entertainment, and service careers due to imaginative ability and sensitivity

### Assimilator

• best at understanding a wide range of information and putting it into concise, logical form

- less focused on people and more interested in abstract ideas and concepts
- may be more concerned that a theory have logical soundness than practical value
- · effective in information and science careers

### Accommodator

- best at learning from "hands-on" experience
- enjoy carrying out plans and trying new and challenging experiences
- tend to act on "gut feelings" rather than on logical analysis
- rely more upon people for information than on their own technical analysis
- effective in action-oriented careers such as marketing or sales.

Once you get to know your students' needs, you will be able to vary your teaching strategies accordingly. Similarly, students who come to understand their own needs can learn more effectively. Reference texts have been the traditional resource in a school setting, but may not be the best learning tool for those students who are not visual learners. For example, laboratory projects and "hands-on math" would help reinforce learning for kinesthetic-tactile learners, while audio- and video-tapes would be better resources for auditory learners.

### Assessment

There are various inventories and assessment instruments, in both computerized and hard copy forms, which can be used to determine preferred learning styles. Here are a few:

Learning Style Assessments Process Associates 3360 Olivesburg Road Mansfield, Ohio 44903 Telephone: (419) 522-4644.

Learning Styles Inventory Educational Activities, Inc. Freeport, N.Y. 11520.

Learning-Style Inventory McBer and Company 137 Newbury Street Boston, Massachusetts 02116 Telephone: (617) 437-7080

However, as Snider (1990) cautions: "people are different, and it is good practice to recognize and accommodate individual differences. It is also good practice to present information in a variety of ways through more than one modality, but it is *not* wise to categorize learners and

prescribe methods solely on the basis of tests with questionable technical qualities." (p.53). Assessment instruments are only as good as their creators and interpreters allow, but they do contribute another piece of the puzzle. Ultimately, common sense should be your guide, as always. You should go with what works for the learner.

### **Applications**

The idea that people perceive and process information differently is a novel one for most learners, and many teachers. Many ABE students did not learn well in the standard school setting which relied heavily on lectures and the printed page. They may feel inadequate and insecure. They may have labelled themselves as "stupid" because they could not do what other students around them handled with ease. It comes as quite a revelation to such a student to find that there are other ways to receive and process information which are **perfectly acceptable** and can lead to success. An awareness of their learning styles can lead students to new perspectives on their learning processes, to appropriate learning strategies, and to greater tolerance for each other's differences. An inexpensive study skills workbook which can do that is <u>No Sweat! How to Use Your</u> Learning Styles to Be a Better Student by C. Ulrich and P. Guild, available from:

The Teaching Advisory Dept. N2, P.O. Box 99131 Seattle, WA 98199 Telephone: (206) 282-3420.

### **Cultural Differences**

"The language students learn as young children, and use with their immediate family and close friends, plays an important role in the development of their identity and view of the world. At whatever age they enter school, their first language or dialect has been, to that time, their principal tool for giving shape and meaning to their experience." (Etobicoke Board of Education, 1987, p. 12). Learning does not take place in a vacuum. What we perceive, and what we learn, is coloured by our life histories. Robin Hill, an ABE instructor at the Adult Learning Centre in North West River (which serves the community of Sheshatshu), shared the following insights with me.

The mental development of an individual is tied to that individual's emotional, physical, and spiritual development. It has been suggested by native groups, including the Sheshatshu Innut, that these are in turn tied to the economic, social, cultural, and political development of the community as a whole. The Innut have recommended that course content and instruction by non-Innu instructors reflect a valuing of traditions, traditional skills, and the country; that Innut elders be involved in instruction of courses designed to help the Innut find their economic, social, spiritual, and cultural niche; and that the Innut have greater control of educational activities within their community.

The ABE staff in North West River (Extension Services, Labrador College) works under the advise of several community advisory committees. At the classroom level, learners are allowed to take part in events that the community identifies as important, for example, court cases and aboriginal rights issues, community gatherings, and a suicide prevention and grieving workshop. Learners brainstorm in identifying videos, optional learning activities, and topics for special workshops which can be used to meet the learning objectives of the ABE program. For example, sessions conducted by the Innu Alcohol Program in Sheshatshu and the Labrador Inuit Alcohol and Drug Abuse Program in North West River were used to cover learning objectives in IS2012, and a visit to the local weather station covered objectives in IS2015. Involvement with and support from the native community may be essential for an individual to successfully complete the program.

Words, concepts, and situations which seem commonplace to one learner can be totally foreign to another. For example, some native groups have no words or concepts to describe fractions. Teaching mathematics to learners of such a background may require entirely different strategies from those commonly used with learners of a different background. In some cultures, knowledge has traditionally been passed on by the elders, a situation which could cause problems if a young instructor attempts to teach older learners. Ethics and principles differ among cultures. Some examples include non-interference, not showing anger or gratitude, different concepts of time and sharing, strict codes of etiquette, and personal independence. In some native groups silence or laughter is often a response when people are nervous or fearful; however, it may be misinterpreted as inappropriate or rude behaviour by instructors not accustomed to the culture. We must see, and respect, learners in the context of their native tongue and cultural heritage.

Materials which you use to accomplish the ABE objectives should be relevant to the individual learner and to the community. For example, a learner may be able to calculate the distance between the floor of a tent and the kettle sitting on a stove, but be puzzled by a similar calculation involving buildings, or trains, or tunnels. The learner can create a mental picture of something familiar. A problem involving dividing a steel bar into equal pieces may cause much more difficulty than a similar problem involving dividing bags of flour equally among sisters. A matching word exercise involving matching the word "cat" with "purr" will not come naturally to member of the Innu culture which considers cats evil.

It is extremely important that we, as instructors, be sensitive to each learner's cultural background and native tongue.

### Learning Strategies

"*The most important learning is learning to learn. The most important knowledge is self-knowledge.*" (Nisbet & Shucksmith, 1986, p. vii). Traditionally, curricula have been concentrated on useful or desirable **content** including reading, writing, mathematics, practical subjects, science, environmental studies, creative arts, and specialist studies. Often neglected are general processes and **strategies** of learning, such as solving problems, using memory effectively, and selecting appropriate methods of working. As adult educators, we should help our students equip themselves with the skills essential to survival, both in school and in the workplace. "*To adapt quickly to new workplace demands, employees must know how to learn. They need problem-solving skills to overcome barriers that arise in new situations. In addition to feeling comfortable with innovation, they must be able to think creatively as they cope with new challenges." (Carnevale, Gainer, & Meltzer, 1990, p. 7).* 

Effective learning is not just a matter of intelligence, nor is it a matter of mastering the correct procedure for each situation. *"Some apparently intelligent people can be remarkably unintelligent in their approach to learning....Successful learners have developed a range of strategies from which they are able to select appropriately and adapt flexibly to meet the needs of a specific situation. To do this, they need to be aware of what they are doing and of their own learning style, and to monitor their learning so as to be able to make appropriate decisions and to switch their choice if it appears to be ineffective." (Nisbet & Shucksmith, 1986, p. 6). In other words, effective learners can "step back" from the content or skills that they want to learn. They can examine and control the mental processes they use to accomplish the learning. This awareness of one's mental processes is termed metacognition.* 

Ideally, of course, students would have come to this ability long before reaching adulthood. In reality, adult learners who enrol in adult basic education programs do not know how to learn

effectively. As instructors, how can we help them do that? We must try to help learners understand themselves, their unique learning needs, and a range of strategies to try. Here are some pointers:

- 1. Promote self-awareness. Have students consider learning styles and assess their own preferences. Ask students to describe successful learning situations they have experienced and consider why they were successful. Get them to think about how they learn.
- 2. Coach them in a variety of strategies they can use in:
  - **studying**, for example, rehearsal (repeating orally or mentally), notetaking (selecting main topics, paraphrasing, summarizing), organizing, and time management.
  - **finding information**, for example, using books, libraries, and other sources of information.
  - **completing assignments**, for example, routinely answering this series of questions: What do I need to do? Where could I go? How do I get the information? Which resources shall I use? How shall I use the resources? Of what should I make a record? Have I got the information I need? How should I present it? What have I achieved?
- 3. Help them transfer these skills and strategies by using them in context and practising them in various content areas.
- 4. Help them realize that "the skill of learning to learn is the key to acquiring new skills and sharpening the ability to think through problems and to surmount challenges....It opens the door to all other learning and facilitates the acquisition of skills from literacy to leadership." (Carnevale, Gainer, & Meltzer, 1990, p. 17).

There are various books which you can use to facilitate the development of these skills, for example <u>Learning for Success: Skills and Strategies for Canadian Students</u> which is described in Chapter 8 (see Fleet, Goodchild, & Zajchowski, 1990).

### Learning Disabilities

One of the puzzles in basic education for adults revolves around the question of why many apparently bright people did not succeed in school in the first place, or why they might not be performing as well as you think they should. Aside from suspecting the obvious explanations like visual or auditory impairment (problems that are extremely prevalent), an explanation you should consider is that students who are returning as adults may well have failed at school because of undiagnosed learning disabilities. As defined by the Learning Disabilities Association of Newfoundland and Labrador, a **learning disability** is:

- a dysfunction which interferes with the processing of information
- predominately a problem of perception (visual and/or auditory), organization or coordination, not intelligence (people with learning disabilities have average or above average intelligence)
- often an invisible handicap and is therefore all the more frustrating.

The Association emphasizes that a learning disability is not

- a form of mental retardation
- a sign of a lazy or unmotivated student.

There are various clues which may indicate that a person has a learning disability, and may need extra help in managing particular aspects of their learning. Although you are probably not a trained psychologist, there is much you, as a concerned instructor, can do.

### **Recognizing Learning Disabilities**

The Learning Disabilities Association suggests that a learning disabled student may have any, or a cluster, of the following characteristics:

- an uneven and inconsistent achievement profile
- problems with reading, comprehension and/or mathematical computations
- difficulty with writing, spelling, grammar or oral expression of language
- disorientation in space and/or time
- reversal of letters, numbers or words
- difficulty in following directions
- inability to organize studies
- social skill deficits
- problems with short- or long-term memory.

**Recognize any of your students?** If so, don't give up on them--you can make a real difference by helping them understand and cope with their disability. Many learning disabled students can be successful in further education, even university, if their disability is recognized, and help is available.

Diagnostic instruments are available for assessment of learning disabilities. One such test is the <u>Structure of Intellect--Learning Abilities Test</u> (SOI-LA). Specialized training is required to administer and interpret this instrument, but the information obtained is very useful and easy to translate into prescriptive teaching plans. Training, usually two days in length, is conducted by certified SOI trainers across Canada and the United States. If you have a guidance counsellor on staff, perhaps that person might be interested in learning more about assessment of learning disabilities. For more information, contact:

SOI Systems 45755 Goodpasture Road Vida, Oregon 97488 Telephone: (503) 896-3936.

### Types of Learning Disabilities

In terms of the problems that an affected adult faces, there are several categories of learning disabilities:

- Visual perceptual problems cause impairment in obtaining information via the sense of sight.
- Auditory perceptual problems cause impairment in obtaining information via the sense of hearing.
- Intersensory problems result in difficulties in using two or more senses simultaneously.
- Motor problems result in difficulty in using the body efficiently in performing some task.
- **Directional problems** prevent trouble in distinguishing physical directions or in telling right from left.
- **Inappropriate social behaviours and responses** result because people with this disability do not automatically learn social nuances we tend to take for granted, such as making eye contact, not interrupting people, or distinguishing between different emotional responses. Such people have to be taught, step-by-step, socially acceptable behaviours.

Any of these functional discrepancies can affect a person's ability to perform in an educational setting. As outlined by the Province of British Columbia (1990), the student with learning disabilities may experience breakdown at any of the steps involved in learning:

At the **input** stage:

- Very little information may be taken in at one time.
- There may be a high level of distractibility or short attention span resulting in lost and/or inaccurate information.
- One or more of the five senses or modalities of learning may be impaired in the ability to receive information.
- There may be difficulties receiving information from more than one modality or sense at any one time.

In the **process** stage:

- It may be difficult to organize or put information in order, causing this information to be confused or jumbled.
- There may be difficulty integrating old knowledge with new learning.
- Short or long term memory may be limited so that information is forgotten.
- It may be difficult to transfer or associate information learned visually with that learned audito-orally or vice versa.
- There may be difficulty in language encoding and decoding.

In the **output** stage:

- There may be difficulty expressing in written form knowledge that is understood and can be expressed verbally.
- There may be difficulty in performing tasks even though the knowledge is present.
- There may be difficulty in expressing verbally knowledge that can be applied in a shop or lab setting.

### **Coping Strategies**

People do not outgrow learning disabilities, or have them cured, but they can learn compensatory

strategies for coping with them. Since learning disabilities are so varied, there is no one strategy for dealing with them. The Learning Disabilities Association recommends some techniques which might mean the difference between success and failure for one of your students:

In class.	<ul> <li>provide a detailed course outline, a reading list, and if possible, an alternative, less demanding list for students</li> <li>present material in both a written and a spoken form</li> <li>allow students to tape lectures</li> <li>encourage students to borrow other students' written notes</li> <li>explain clearly, preferably both orally and in writing, the assignments which are required, stating clear deadlines</li> </ul>
Assignments	<ul> <li>give plenty of time for completing assignments</li> <li>consider letting the student submit a cassette tape rather than a written presentation</li> <li>allow students to have someone proofread their assignments</li> <li>be available in person to discuss assignments and/or refer the students to someone else who may be able to help</li> </ul>
Examinations	<ul> <li>be flexible, consider oral examinations or taped responses</li> <li>permit the use of calculators and dictionaries during the exam</li> <li>recognize that an examination is particularly stressful for a learning disabled student, consider giving some extra time or providing a different, quiet room</li> <li>vary the format within the examination, multiple choice and brief answers may be easier for the student to cope with than several long essay items</li> <li>remember that the purpose of examinations is to find out what students know, not what they do not know.</li> </ul>

Perhaps some of these ideas could fit in your situation. Other detailed strategies for reading comprehension, vocabulary development, spelling strategies, and written language strategies are described in the work of Purton (1990a).

Karassik (1989) and Winzer (1990) describe learning disabilities in terms of **metacognition**. Learning disabled students have failed to develop good thinking and learning strategies, and must be taught how to think and how to learn. To do this, an instructor analyzes a task into small stages, then performs it for the student while verbalizing aloud about self-guiding

instruction on how to do the task, and self-evaluation of the performance of the task. The student then performs the task while the teacher instructs. In the next step, the student performs the task while verbalizing aloud. Eventually the student performs the task while using self-verbalization in a whisper, and finally uses only sub-vocalizations. In other words, learning disabled students sometimes need to be taught how to "talk to themselves" to ensure the development of the right problem-solving strategies.

When you come right down to it, all of these strategies are little more than flexible, humanistic teaching applied to individual learning needs. Although you may suspect that a person has a learning disability, you may have no means of diagnosis to make sure. However, you might consider a learning disability as, in essence, just another learning style. If you can employ some strategies which help a person learn, you will both benefit by that learner's success!

### Resources

If you want to learn more about learning disabilities and how to help people who have them, there are many resources you can access:

### Support Services

Both the national and provincial associations listed below have information, publications, and resources available on learning disabilities. The provincial group can give you information on local chapters and services.

Learning Disabilities Association of Canada 323 Chapel Street Suite 200 Ottawa, Ontario K1N 7Z2 Telephone: (613) 238-5721

Learning Disabilities Association of Newfoundland and Labrador P.O. Box 26036 St. John's, NF A1E 5T9 Telephone: (709) 754-3665 Fax: (709) 754-3678

### Print

These publications may help:

Cowen, S. (1985). College Choice for LD Students: Know your "SWIS". <u>Academic Therapy</u>, 21(1):77-82.

This paper gives guidelines for matching the needs of students with learning disabilities to appropriate college programs.

Karassik, J. (1989). <u>Literacy and Learning Disabilities: A Handbook for Literacy Workers</u>. Ottawa: Learning Disabilities Association of Canada.

This concise handbook has information on identification, coping strategies, and remedial techniques. It is available for \$5 from the provincial and national LD Associations (address above).

Province of British Columbia. (1990). <u>Learning Together: A Handbook for Teaching Adults</u> with Learning Disabilities. Ministry of Advanced Education, Training and Technology.

This compact, inexpensive handbook is a real gem which contains a wealth of information on understanding learning disabilities, identification, assessment, strategies and resources. Available from: Provincial Curriculum Publications, Marketing Department, Open Learning Agency, P.O. Box 94000, Richmond, British Columbia V6Y 2A2. Telephone: (604) 660-2190 or 7780. FAX: (604) 660-2272. Order number: VA0078.

Purton, D. (1990a). <u>Instructional Strategies for Adults with Learning Disabilities: Tutor's</u> <u>Handbook</u>. Yorkton, Saskatchewan: Parkland Regional College.

This concise handbook describes various strategies for helping learning disabled students read, spell, and write. It is available from: Parkland Regional College, 306-2nd Avenue North, Yorkton, Saskatchewan, S3N 1H2, Telephone: (306) 783-6566, FAX: (306) 786-7866.

Purton, D. (1990b). <u>Literacy for the Learning Disabled: Project Report 1989-90</u>. Yorkton, Saskatchewan: Parkland Regional College.

This report describes an exploratory and developmental project aimed at providing appropriate literacy training to learning disabled adults through the utilization of individualized tutorial instruction. It is available from Parkland Regional College (address above).

Vogel, S.A. (1982). On Developing LD College Programs. <u>Journal of Learning Disabilities</u>, 15(9):518-528.

This is quite a comprehensive paper on identification and assessment of LD, planning, staffing, and establishing support programs for LD learners.

Winzer, M. (1990). <u>Children with Exceptionalities: A Canadian Perspective</u>. Scarborough, Ontario: Prentice-Hall.

Chapter 8 in this university text covers learning disabilities in great depth.

### Videos

These videos may help you, and may also be used to help a learning disabled student who has problems with print:

### We're not stupid.

Vignettes of children, adolescents, and adults with learning disabilities talking about what it is like having a learning disability. Approx. 17 minutes. Available from Media Services, Nova Scotia Department of Education (send blank videotape and ask for #V0045).

Learning disabilities: The hidden handicap, Characteristics of the hidden handicap, Preemployment preparation, Work experience preparation.

These four half-hour tapes were prepared by Nancy Lassiter. The technical quality of the tapes is not great, but they do give good information about what learning disabilities are, characteristics, and ideas for helping people. The set is available for \$60 from St. Lawrence College, 2288 Parkdale, Brockville, Ontario, K6V 5X3, Telephone: (613) 345-0660.

### Employment and learning disabilities.

This was prepared for Employment and Immigration Canada (CEIC) by the Learning Disabilities Association of Canada (LDAC) and Cathy Smith. This hour-long video presents Cathy in conversation with an employment counsellor, and people with four different types of learning disabilities. The technical quality is not great, but the information is good. Available for \$20 from the LDAC, 323 Chapel Street, Ottawa, Ontario, K1N 7Z2, Telephone: (613) 238-5721.

### ABE Courses

Several of the courses outlined in the ABE program could be of significant help to adults with learning disabilities.

IC 2011 Study Skills, IM 2019 Word Problems, IE 3214 Personal Development, IC 3214 Oral Communications, and IE 3213 Career Awareness contain components which could be used to help a learner cope with learning disabilities, while proceeding through the ABE program and obtaining credits (for the 3000 Level courses) at the same time!

### Math Anxiety

The Task Force on Mathematics and Science Education (Crocker, 1989) highlighted a number of problems in the mathematics education of today's children. Those same children may be enroled shortly in ABE programs, and adult educators will also have to search creatively for solutions. Unfortunately, at a time when mathematics, science, and technological applications face us on a daily basis, many adults find themselves without the mathematics they need to continue their education or to function effectively as adults. One phenomenon which recently has been the subject of a fair amount of attention is that of "math anxiety", a problem which many practitioners may have to help their students surmount.

Math anxiety refers to the feelings of distress and inability to cope which are evoked in many

people when they encounter any kind of mathematical problem. For some people it is as extreme as being unable to balance a chequebook. For others it arises for concepts beyond arithmetic. It is somewhat more prevalent in females than males, but it more common than most people realize in both genders, at all ages. It is found in people of diverse educational backgrounds, even university graduates.

Most sufferers of math anxiety report a negative experience with math in school which resulted in their not grasping some concept crucial to later study. Failures then compounded until mathematics in general caused feelings of helplessness and panic. These people often profess that they do not have a "mathematical mind", though they may well feel competent or talented in other areas. However, programs which focus on counteracting math anxiety do so on the premise that you do not have to have an appropriate mind, but rather appropriate learning experiences. This stance is represented by the works of Afflack (1982), Langbort & Thompson (1985), and Tobias (1980).

Some teaching strategies suggested in the literature for encouraging all students in math are:

- 1. Begin with success stories. Start the anxious learner well below the frustration level and encourage lots of practice.
- 2. Ground mathematical concepts in everyday, relevant, job-related experiences. Use practical examples which are familiar to the individual.
- 3. Encourage students to ask questions until they understand, and to view mistakes as opportunities to learn, rather than be shamed by them. Be patient and supportive.
- 4. Use hands-on and manipulation of concrete objects. Many students are not good at dealing abstractly with concepts, while many mathematics teachers are.
- 5. Provide opportunities to develop spatial visualization skills. Many students, particularly females, have not had the kinds of experiences which develop the ability to mentally picture and manipulate objects from word descriptions. Yet, given practice, most people can develop these skills, and use them in subjects like geometry or physics. Blackwell (1982) gives exercises of this type.
- 6. Teach problem-solving strategies so that students can understand the problem, formulate a plan, carry out the plan, and check the answer.
- 7. Counsel students on the importance of a good foundation in mathematics to employment and further study.
## Characteristics of Students in Full-Time and Part-Time Programs

Conversations with ABE practitioners around the Province reveal differences in the characteristics of students attending full-time and part-time programs. The needs of these two groups vary considerably. Instructors who teach in only one of these two arrangements may, therefore, not understand why some of the facets of the ABE program were constructed as they were. For example, if you teach only day-time, full-time students, you may not see the need for some of the repetition and overlap which exists in the program structure. If you teach only in part-time programs, you will probably understand the significance. Here are some of the differences instructors have stressed:

## **Characteristics**

•

Full-time: • The majority of these students enter at low level.

- Most students attending full-time are HRDC-funded, and hence under pressure of time constraints to finish in 65 weeks. However, for the most part, these students are relieved of the pressures of holding down a job while they study.
  - These students are often referred by HRDC with specific trades-oriented goals already decided.

Part-time:	•	The majority of part-time students come in with some high school credits. They can start at higher level.
	•	Those who enter at a low level usually take a long time to complete, at least three years.
	•	These students are less likely to have definite career goals attached to education. They may be vague about their goals at first, but become more decided as they proceed. They may develop a late interest in attending university, for example.
Needs		
Full-time:	•	Most of these students need to complete both Levels II and III.
	•	They need to progress quickly to complete both Levels within allowable funding period, and hence do not need much repetition.
	•	If they are trades-destined they may need academic work with a more specific focus, geared toward the trade.
Part-time:	•	The majority of part-time students need to complete only Level III (or part of it).
	•	Those who enter at low levels, and take a long time, may get lost along the way. They need repetition and review.
	•	They need the breadth of program and higher level courses to accommodate the variety of goals and interests.
	•	These students may be studying under the pressures of juggling a job (likely low-paying) and family commitments with their studies, because they are not funded. They may also need flexibility in scheduling to fit classes, assignments and exams around their work schedules.

Of course, these generalizations do not apply to all students in either full or part-time studies. However, the fact that there are such diverse characteristics highlights the need for flexibility and interpretation in delivery of the ABE program.



There are several variables which affect choice of instructional methods. Instructional goals and objectives, student characteristics, content, instructor characteristics, and available resources are factors which must be considered in selecting the best method for your situation. A variety of delivery approaches will be necessary to accommodate the varied needs of adult learners. Both full-time and part-time attendance will continue to be a necessity to our students as they attempt to fit upgrading of their education into the hierarchy of priorities in their lives. Where numbers permit, teacher-led group classes may be the appropriate approach for students who thrive in that environment. Individualized, self-paced work will be required in more remote areas, for distance education, and for students who are more comfortable in that approach.

**NOTE**: This chapter discusses the characteristics and uses of some delivery methods. The choice, however, is strictly an institutional decision. The Department has set objectives for ABE as a provincial program, but by law it is the responsibility of the Institutions to deliver and certify completion of the programs it offers. Method of delivery is dictated by the policies of each institution.

## Methods

Hiemstra and Sisco (1990, pp. 15-16) described three broad approaches to instruction:

- 1. Didactic--"*the instructor controls most of the direction and content through a lecture format. Learners are expected to acquire and retain knowledge primarily through memorization*". Perhaps we are so comfortable with this approach because we have all experienced it ourselves. How many poems did you have to memorize? I can still recite <u>Invictus</u>!
- 2. Socratic--"*the instructor uses questions to take the learner through a prepared and logical sequence of content acquisition. Learners are expected to respond to the questions.*"
- 3. Facilitative--"*the instructor creates an educational environment in which learning can* occur. A variety of instructional techniques can be used. Learners are expected to assume increasing responsibility for specific content determination and acquisition."

These authors strongly endorse using this facilitative approach to individualize instruction. They plead such a persuasive case for individualized instruction that I introduce it first.

# Individualized Instruction

## What is It?

To many seasoned BTSD instructors, the term "individualized instruction" may have become synonymous with "competency-based" instruction. This is not strictly accurate, however, since competency based instruction is just <u>one</u> way to individualize. According to Hiemstra *and Sisco (1990), individualized instruction is "not a matter of programmed instruction or teaching machines. Nor is it the same as individualized education, where learners use specifically designed teaching-learning units or modules for the mastery of self-selected goals, "(p. xii). It "emphasizes individual responsibility for efforts in performance, "(p. xii). According to the National Center for Research in Vocational Education (1986) individualized instruction in vocational-technical programs can be defined as "<i>instruction structured to meet the learning needs of each student in a unique way in order to give each the skills, abilities, knowledge, and personal qualities that will enable him or her to enter the occupation of choice".* (p. 6).

Hiemstra and Sisco (1990) advocate a change in role for instructors in adult education. "*The traditional role of instructors was to impart knowledge to receptive learners. However, the instructional process that we advocate requires the instructor to facilitate or manage the learning process itself, especially when mature, adult learners are involved. In other words, the learning process is more important than the content of the course or body of knowledge being covered. <i>Therefore, the instructor or trainer works to assist individual learners in taking responsibility for their learning. This does not mean that you as an instructor may simply ignore subject matter",* (p.11). "*Frequently, you will need to maintain control to varying degrees over key concepts or topics studied because of your institution's expectations or because your learners may have limited initial awareness of these concepts or topics.*"(p. 13).

These authors include the following activities as part of the **role** *"the instructor must undertake in any facilitative model where individualization is an intended educational goal"*, (pp. 17-18):

- 1. serving as a content resource for learners
- 2. managing a process of assessing learner needs rather than presupposing what all those needs might be
- 3. arranging and employing the resources necessary for your learners to accomplish their personal goals (may include finding or creating new resources, obtaining knowledge or expertise on new areas of relevance to the learning experience, or making outside experts available)
- 4. using a wide variety of instructional techniques and devices to maintain learner interest or to present certain types of information, and allow the learner to make choices

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- 5. stimulating and motivating learners [see also Wlodkowski (1985)]
- 6. helping your learners develop positive learning attitudes and positive feelings about their ability to be independent
- 7. helping learners accomplish personal reflection through such techniques as small group discussions, and journals
- 8. evaluating learner progress in various ways and encouraging self-evaluation.

The National Center for Research in Vocational Education (1986) attributed the following **characteristics** to individualized instruction, (p.7):

- 1. The needs, abilities, and interests of individual students become prime focal points around which the instructional program centres.
- 2. Students are encouraged to become more active, involved, and responsible for their own instruction.
- 3. The teacher becomes less a presenter of lectures, and more a learning manager and guide.
- 4. The learning objectives are clearly stated in performance terms.
- 5. Varied alternative and optional learning experiences are available to meet the stated objectives.
- 6. The strategies or methods of instruction are designed to reach students as individuals.
- 7. A variety of media and instructional resources is employed, for example: games, role-playing, simulations, case studies, brainstorming, lab work, peer instruction, independent study, community involvement, conferences or interviews, library research and reading, small and large-group study, completion of learning packages or programmed materials, project work, group activities such as lectures, presentations, or demonstrations.
- 8. The learning environment is designed for flexibility and variety.
- 9. Students are evaluated in terms of individual performance and not by comparison with others.

The theory sounds great, but how is it put into practice? It is quite a leap from a traditional system to one where the learner begins to accept responsibility for his/her own learning and accepts you as a facilitator!

#### Introducing Individualized Instruction

The National Center for Research in Vocational Education (1986) cautioned that "*initially, students will need help in learning how to handle themselves and their responsibilities in an individualized situation. Most students will have experienced only structured group instruction in which the teacher made the* 

assignments and gave the directions. The students all did basically the same thing at the same time, and the tests were designed to separate the quick from the slow." (p. 14).

The concepts involved in individualized instruction may be new to you. They will certainly be both new and strange to most students. Without orientation to the process and guidance in how to begin efforts, both of you may become confused and frustrated. Instructors should have the benefit of an inservice session in individualization policies and procedures. Students need to know what is expected of them, what freedoms and responsibilities they have, and what restrictions exist. The procedures for working with individualized materials will need to be explained. For example, students should know how to use the reference library, how to proceed with the learning activities, and where to find the multimedia equipment.

The National Center for Research in Vocational Education (1986) recommended an initial student orientation to individualized instruction, requiring a day or two of instruction and discussion. Here are the steps they recommended for the student orientation process (p. 14):

- 1. Briefly outline the basic ideas involved in individualized instruction, emphasizing that students help plan learning activities so that learning will be more personal and relevant to them.
- 2. Show students the resource materials and equipment they will be using. Instruct them in the use of special equipment (eg. videotape recorders). Indicate that students will be expected to find some of their own materials.
- 3. Define the role of the teacher as someone available to **help** students meet their goals, discover the best learning resources, and plan learning activities.
- 4. Define the role of the student as an **independent learner**, a responsible individual working toward personal learning educational goals.
- 5. Review with the students the objectives of the unit, the learning activities the student may pursue, the key concepts and skills to be learned, and the target completion dates.
- 6. Discuss the procedures for student self-evaluation and the criteria and methods for the final individual evaluation.
- 7. Review basic classroom and lab procedures relating to such things as cleanup and how to check out materials.
- 8. Encourage student response, reaction, and questions.

#### Pitfalls to Avoid

Such a departure from tradition cannot happen smoothly without organization, energy, and conviction. Hiemstra and Sisco (1990) shared some of their experience in predicting that:

the individualizing process will often require you to weather some initial learner confusion, anxiety, or suspicion. It has ever been our experience that occasional hostility or uncooperativeness must be overcome. In other words, an investment of time is required to build a "community of learners", where you become a specialist in the learning process and evolve a personal role appropriate to that process. In such a setting content expertise often will be secondary to your skill in learning management and developing a community spirit that allows learners, your expertise, and available learning resources to come together. (p. 13).

These authors attach great importance to you, the instructor. They predict that success in individualizing is contingent upon your own attitude. "*In other words, an instructor in a facilitator role will need to believe in the overall potential of promoting self-direction in learning, accept learner input, criticism, and independence, and seek out a wide range of learning resources. Changing your approach or attitudes toward instruction generally requires dedication, hard work, practice, and time."* (p. 13). Adaptation to a new instructors work in this province. *"Many instructors and trainers who are faced with large numbers of adult learners may have some initial difficulties in adapting their own instructional styles to [individualization]. Adaptation, experiment, fitting various techniques to one's personality, and some plain old trial and error will be required,"* (Hiemstra & Sisco, 1990, p. 10), not to mention good, old-fashioned patience!

There is a great range in the extent to which a program may be individualized, completely or just to the extent of individualizing assignments, lab work, and so on within a course. If a program is completely individualized, old rigid timetables will have to give way to a more flexible approach. Flexibility in what you do, how you do it, and when you do it will be a great asset. **Rigid scheduling can quickly kill any attempt to individualize**.

#### Stimulating the Learner to Learn

An important variable in facilitation lies in your success at providing the stimulus for learners to become excited about a subject area, so that they want to learn about and are willing to use such resources. This will entail your helping learners locate a variety of resources and discover their own ability to use such resources. We suggest that the development in individuals of a positive attitude about learning and the relevancy of the subject matter to personal needs may be more important than mastery of the actual subject matter. (Hiemstra & Sisco, 1990, p. 14).

The ABE revision teams developed the CS 2011 Study Skills unit based upon the same concerns. Communications skills instructors, and communications skills units are good resources for all instructors to consult. They are hidden resources within arm's reach.

Integral to the individualized process and learning how to learn is the development of a positive attitude toward learning. *Research evidence supports this notion that the facilitative approach to instruction does in fact promote a positive attitude toward the learning activity itself...In general, such researchers have found that individualized involvement usually does not increase or decrease* 

content mastery. However, those having ownership of the process almost always have a more positive attitude toward the content, instructional process, and facilitator, as well as a greater desire to study the content further after the formal learning experience has ended....A final point concerns how the instructor relates to learners. It has been our experience that the best way of stimulating people to become interested in the subject matter, involved in the instructional process, and positive about learning is to treat them as individuals not just as members of a group. (Hiemstra & Sisco, 1990, pp. 14-15).

# Competency-Based Adult Basic Education (CBABE)

One popular pathway to individualized instruction is the competency-based route. **Competency-based education** is a system by which:

- competencies to be achieved are vigorously identified, verified, and made public in advance of instruction
- the instructional program provides for the individual development and evaluation of each of the competencies specified
- assessment of competency takes the student's knowledge and attitudes into account but requires actual performance of the competency as the primary source of evidence
- criteria to be used in assessing achievement and the conditions under which achievement will be assessed are explicitly stated and made public in advance
- students progress through the instructional program at their own best rate, by demonstrating the attainment of specified competencies. Learning is the constant, not time to acquire the learning. Content is mastered at the learner's individual pace.

Competency-based instruction has been (and still is) both heralded as the panacea to all educational woes and damned as the cause of many of them! The truth is that it is neither. Like all methods used in education, there are times, places, content areas, learners, and instructors for which it works admirably well--and others for which it is not appropriate at all. The former BTSD program was developed around competency-based principles, so if you taught in that system you are probably already comfortable with its characteristics. The revised ABE system can be offered in the same manner, but does not have to be. The philosophy and traditions of your institution will dictate whether or not you use CBABE as your delivery method.

Competency-based (also known as performance-based, criterion-referenced, mastery, or individualized) instruction is commonly used in occupational training courses throughout this province. Such courses were developed through occupational analysis and reflect the competencies a learner must achieve before becoming qualified to enter a specific occupation. Trades programs at your community college are likely using such methods.

Should your institution choose to offer the ABE program using CBABE delivery methods, the first step is provided by the Department of Education. The competencies which your adult learners must achieve are the learning objectives listed in the program guides. To cover these objectives, learners will need resources supplied by your institution. There are two approaches which your college might adopt to providing students with instructional materials:

- 1. **learning guides**, or prescription sheets, which reference the objectives to pages in reference texts
- 2. **learning activity packages**, or modules, which are self-contained collections of content and required work.

Production of either of these lies within the domain of the College's responsibility, and some colleges, notably Western Community College have put considerable effort already into spear-heading the production of learning guides.

If you are a newcomer, you will face major role changes in shifting to CBABE. You will no longer be the dominant force in the classroom. Instead you will be the learning manager, or resource person. The students will now be required to take responsibility for their own learning, to move through the program at their own pace, and to come to you for help when they feel they need it. If the student understands the learning objectives and has access to resources, it should not be difficult to establish this relationship, and work out an individualized program for each student. However, before embarking upon CBABE, assess your own readiness for the role of learning manager. Students new to such an approach are bound to be uncomfortable with change. They will need support, coaching, and understanding in assuming their new roles. If you find yourself less than willing, you are unlikely to succeed in using a CBABE approach, doing a disservice not only to yourself, but to your students as well. You will have to decide whether to seek further professional development in CBABE, or to use different methods with which you are comfortable. Good orientation of staff and students to the underlying principles and methods of CBABE is essential to the smooth operation of the program.

Mastery learning is one of the underlying principles associated with CBABE. Students are generally required to demonstrate 80% mastery of the skills in a particular item before they are allowed to proceed to the next. They are permitted to retake tests (a reasonable number of times) to achieve mastery. Typically, tests span relatively small sections of work, and mastery is possible in a reasonable time-frame. CBABE is based on the concept that all students can learn and master competencies if given the right opportunities.

Managing a CBABE program involves non-traditional groupings of furniture to allow for individual work stations, test areas, and resource centres. Duplication of resources is not needed to the same extent as in group classes, because students proceed at different rates through the program.

There are certainly many advantages to using CBABE as a method to individualize instruction for clients, including:

- 1. open-entry, open-exit
- 2. flexibility in meeting individual needs
- 3. mastery of short chunks of content works well with clients who have low self-esteem or learning disabilities
- 4. greater accountability.

## Group Methods

Perhaps, since we have spent a good deal of our own learning time in "chalk'n'talk" situations, there is a natural tendency to equate group methods with lectures. Although lecturing may on many occasions be the most efficient way to convey information to a group, there are other activities which may be more productive in stimulating a group to "get things going". Some of the communications skills courses include objectives which involve activities such as group discussions, panel discussions, or symposia. Other creative ideas include:

#### Brainstorming

This technique can be used to stimulate creativity and promote the involvement of students in a learning situation. Select a group or no more than 12-15 people to consider a specific topic which is of concern to them. A leader (either you or a group member) should guide the session, but not dominate the ideas expressed. A recorder should be appointed to keep a written record of suggestions, either on a chalkboard, flipchart, or large index cards taped to a wall. Discourage evaluation, criticism, or discussion of ideas during brainstorming, rather

concentrate on spontaneous generation of ideas and participation of the whole group. Ideas accumulated through a brainstorming session can later be used to develop learning activities, social events, projects, and solutions to problems.

#### **Question Box**

This easy-to-use technique has many creative applications in stimulating interest. Learners are requested to place questions or ideas on paper in a box by a specified time, allowing anonymous, low stress contributions and time for consideration of ideas. Contributions can be used for discussions or debates, to solicit information from a resource person, or to help in creative problem-solving.

### **Role Playing**

Unrehearsed dramatization of a situation or incident can be a powerful instructive tool in studying human relations, employer/employee interactions, social situations, and conflict. Character-playing, role-reversal, and position role-playing are variations on the same theme. One mistake commonly made in using role-playing is the emphasis of negative behaviours or wrong reactions. Concentrate on playing the right responses for more positive impact.

#### Peer Coaching

Many adult learners return to an educational setting with low self-esteem, little confidence, and little support. "School and teacher" evoke fearful memories. Pairing up students can facilitate the formation of a support network, increase coaching opportunities for students who need them, reinforce more advanced students' learning, and help to extend instructors' expertise throughout the class.

## Computer-Assisted Instruction

Computers have become so commonplace that adult learners will not be surprised to encounter them in the classroom, although they may be intimidated the first time they actually have to sit down to deal with one! However, once that hurdle has been jumped, many adults find computer assisted learning to be extremely helpful. There are **many** computer assisted programs which can be used in ABE. In some settings, such as correctional institutions, such packages can be a godsend. For example, instructors in the ABE program offered at Her Majesty's Penitentiary in St. John's have found the <u>PLATO Network System</u> to be a useful instrument in offering components of the ABE program there, especially to prisoners who are confined to certain maximum security areas. Winnie Montague from Labrador College and

Daisy Williams from Cabot College have put a great deal of work into referencing the ABE program to the activities found in PLATO. The result of their efforts, a report entitled <u>ABE/PLATO Correlation</u> (Montague, 1991), is available on request from Labrador College.

As Daisy explained, "the PLATO Network System comes with published PLATO routing activities. These activities cannot be edited, but it is possible to create new routing activities using the material from the other activities. We have found that much of the material contained in the PLATO system corresponds with the material in the new ABE program. We have been setting up our own routing activities using the prescription sheets from the ABE program [ie. those produced, in fact, by Western Community College]. It is possible to create a routing activity using the ABE course name, number, and title. This course is then assigned to the student on the PLATO network. We have set up most of the ABE Level II courses this way and are currently working on Level III. We have found the Level I material to be extremely useful, since it is all Canadian content. Several of our Level II students have been using PLATO activities and have completed between four and six courses in a three-month period. We feel that this material could be very helpful to other campuses, and we are in the process of sharing unit modules with other correctional schools."

However, Daisy points out that *"although we consider PLATO to be an excellent instructional tool for the ABE program, in some cases teaching and the use of other materials are necessary."* PLATO has components covering reading, mathematics, language arts/writing, science, social studies, computer awareness, and life skills. The mathematics and science components extend to senior high school levels. The content is Canadianized. More information about PLATO is available from:

Elizabeth Ploughman-Walters TRO Telephone: (709) 861-3230 OR 1-800-869-2058 1-800-869-2570

Of course, PLATO is just one of many computer assisted learning systems. Another comprehensive system is the YES Canada <u>Pathfinder Learning System</u>. This computer-managed learning system contains Canadian basal curriculum, based on the requirements of all English-speaking provinces and territories. It offers individualized, self-paced, mastery-learning in all the subject areas up to, and including, grade 12. The various learning styles of individual learners are addressed through a multi-media approach. The materials are promoted as adult-appropriate. In fact, many of the texts which come with the Pathfinder library are included in the suggested references for the ABE program. For more information, contact:

Progress Learning Incorporated 60 Homewood Avenue, Suite 436 Toronto, Ontario M4Y 2X4 Telephone: (416) 962-8421 FAX: (416) 362-0089

Campus America markets <u>People-Oriented Information Systems for Education (POISE)</u> and <u>Learning Management Expert (LMX)</u> which Cabot Institute piloted in 1990. More information on their systems is available from:

Campus America Regency Business Park, Suite 205 900 Hill Avenue Knoxville, TN 37915-2523 Telephone: (615) 523-9506

Columbia Learning Systems markets the <u>CCC Instructional System</u> which has been piloted at Labrador Community College. It is comprehensive and user-friendly, but most powerful at ABE Levels I and II. Above that level the science component is very scant. It is an integrated system

with a voice component at lower levels. For more information:

Columbia Learning Systems 802 Manning Road, N.E. Calgary, Alberta T2E 7N8 Telephone: (403) 273-0315 FAX: (403) 272-3805

Another system which offers literacy through GED levels, but is not Canadianized, is <u>Invest in the</u> <u>Future</u> produced by the Jostens Learning Corporation. It is available from:

Zynex Systems Inc. 550 Alden Road Unit 112 Markham, Ontario L3R 6A8 Telephone: (416) 477-3511 FAX: (416) 470-9701

Added advantages offered by all of these systems include the ease of assessment using computergenerated and graded tests, and the time-saving aspects of organized record-keeping. Individual tutoring packages on various subjects are also available through book publishers and suppliers of laboratory equipment.

## Eclectic Approach

All approaches have their good and bad points. For example, in spite of the good attributes of CBABE, it is often criticised as being concerned with minimum competencies, and hence overly reductionistic, or too behaviour-oriented, or too choppy, and so on. Lectures and group methods are also termed "lock-step", a pejorative image at a time when flexibility is

touted. In truth, you are free to take the best facets of all approaches, and use them combined to provide a concerned, customized, personalized method that best fits the relationship you have with your students, within the context of the policies of your institution.

# Helpful Hints

Since you, as facilitator of the learning experience, are responsible for getting things off to a good start and keeping them running smoothly, you will want to be as well-prepared as you can be! An Adult Basic Education Pre-Service Package (Pre-Service Manual) developed by Paul Foote for the Department of Education and Training (1995) is available from your local college campus. If you are an experienced instructor, many of the "common sense" ideas suggested may be "old hat" to you. If you are a new instructor, they may help a lot! Renner's (1983) handbook, annotated in the Chapter 8, has many hints of this nature. Draves' (1984) handbook and accompanying video also offer many practical suggestions for teaching adults. The National Center for Research in

Vocational Education has produced teacher education modules on assisting students improve oral communications, mathematics, survival, and problem-solving skills.

# Classroom Set-up

It is important to establish a first impression of warmth and invitation, and to continue to supply a supportive environment in which adults can grow in independence and self-esteem. The traditional authoritarian classroom set-up, with desks in neat rows facing a teacher at the front of the class appears cold, formal, and even threatening to an adult "returning to school". Consider some different arrangements. Take a new look at your classroom through the eyes of a stranger. Small groups around hexagonal tables, a "U" shape, or a diamond shape might draw your group together more. Bright posters, plants, cartoons, and the like can make the room more welcoming. There are many sources of free posters. Write to the Government Departments and other agencies listed in your ABE Program guide. They will send a wealth of materials and information.

## Orientation of New Students

As adult learners return to school, they probably come with misgivings and fears about their ability to succeed second time around. They may well believe that they are returning to the same situation and the same problems that they left. It is important to have an orientation session with new students to let them know about the ABE program, your institution, your role, their responsibilities, and anything else they might need to know.

#### Setting the Scene

Rather than getting bogged down in a heavy load of information, the first session should establish a tone of mutual support, trust, respect and warmth. Show your interest in the learner as a whole person with individual needs and goals. Highlight important aspects of the ABE program and your institution, but give a hand-out to cover more detail.

#### Getting Acquainted

If you have a large group starting at once, ice-breaker type activities which allow students to get to know each other's names and interests are appropriate. If you have a continuous intake-output system, you may be dealing with only a few students at any given time, but it is still important to establish rapport, get to know your students, and let them know you.

#### Making Information Packages

If your institution does not already have a student handbook, make up an orientation hand-out to

give new students. Include information on: the ABE program, calendar descriptions of courses, obtaining credits, student profile sheets, evaluation standards, and policies of your institution. Appendix <u>A</u> contains sample photocopying masters which you may feel free to duplicate for use in your program. The Etobicoke Board of Education (1987) resource book described in the bibliography in Chapter 8 has some excellent student handouts on study skills and essay-style questions which purchasing schools are permitted to photocopy for classroom use.

### Plotting a Customized Route for Each Learner

Either before registration or soon after, you should have an individual counselling session with each new student to assess what that student brings to the program, discuss his or her goals and expectations, and help the student map out a route to achieve those goals. For this session you may, in fact, need to assume many roles, such as instructor, career counsellor, and advisor. More career counselling information follows in Chapter 5. This section contains a summary of the steps to follow and some examples of how to plot a route for a student.

## Summary of Steps to Consider in Plotting a Route to ABE Level III Completion:

<b>STEP 1</b> Assess what you can give the student credit for:	<b>STEP 2</b> Plot a customized route:	<b>STEP 3</b> Award certification
Courses done in high school before 1983?	TRANSFER CREDITS	AWARD ABE LEVEL III CERTIFICATION
Courses done in high school after 1983? Courses done in former ABE or BTSD? Courses done in areas outside ABE? Courses done in ABE Level II?	NOTE: There is a maximum of 10 General Options Credits which can be applied toward Level III Certification.	Remember requirements: Minimum of 6 credits in each of Communication Skills Mathematics Science Minimum of 4 Employability Skills credits
<u>Maturity?</u>	CHOOSE ABE LEVEL III COURSES observing entrance requirements to postsecondary institutions <b>and</b> rules for Level III certification	<ul> <li>Plus 4 additional credits from the above areas</li> <li>Maximum of 10 General Options credits</li> <li>TOTAL OF 36 CREDITS</li> <li>NOTE: At least 6 credits must be completed in ABE to receive ABE Level III certification (and 4 of them must be in Mathematics, Communications Skills, and/or Science)</li> </ul>

This process must be a negotiated process. Involving learners in planning is essential, because adult learners must eventually become independent, and take responsibility for their own learning. Beginning with you may be the first step on that journey.

The following profiles indicate sample pathways students might use to proceed through the revised ABE program to attain either Level III certification or the necessary prerequisite courses to enter programs of further study.

Student A is twenty years old, left school in grade 7 or 8, and is reading at a grade 7 level. Consequently she/he has no equivalency or maturity credits to transfer, and needs to complete both Levels II and III of the revised ABE program. This student wants to go on to study Marine Engineering Technology at the Fisheries and Marine Institute of Memorial University, and so will need a strong math/science background. As you look through the ABE course descriptions, the student indicates an interest in the Career Awareness course, IE 3213, and the Computer Studies course, IE 3212, so you include them as well.

You discuss the student's interests and needs, and together the two of you plan a route to Level III completion, consulting a Marine Institute calendar to make sure the student will cover the prerequisites\* for entrance into Marine Engineering Technology:

\*[IC 3116 is equivalent to English 3102; IM 3212, IM 3213, and IM 3216 are equivalent to Math 3203; and IP 3215, IP 3216, IP 3111, and IP 3112 are equivalent to Physics 3204. The high school prerequisites are also covered by equivalent ABE courses.]

Student A will cover the following number of credits:

Communication Skills Credits	6
Mathematics Credits	15
Science Credits	7
Employability Skills	4
General Options Credits	<u>4</u>

TOTAL CREDITS AWARDED 36

The actual breakdown of courses is indicated in the profile for this student shown on the next page.

Revised ABE Course #	Former ABE or BTSD Course #	High School Course #	Equivalency or Maturity Credits	Credits Awarded
Level II (All)			General Opt. (Level II)	4
IC 3211				2
IC 3112				1
IC 3215				1
IC 3116				2
IM 3101				1
IM 3102				1
IM 3109				1
IM 3210				2
IM 3211				2
IM 3212				2
IM 3213				2
IM 3114				1
IM 3115				1
IM 3216				2
IP 3111				1
IP 3112				1
IP 3215				2
IP 3216				2
IH 3111				1
IE 3212				2
IE 3213				2

#### ABE STUDENT PROFILE FOR STUDENT A

Student B is twenty-five years of age and has received certification for completing: a driving course (35 hours), a standard first aid course (16 hours), a CPR course (10 hours), a hunter education course (20 hours), and a water safety Instructors' course (40 hours). This student actually completed Grade 9, but really needs Level II as a refresher to build confidence and improve reading ability. He/she wants to do a business management course at Cabot College. This student can have **three** maturity credits, **one** equivalency credit for the combined driving, first aid, and CPR courses, and **one** equivalency credit for the combined hunter education and water safety Instructors' courses. (See regulation 3 on page 19.)

You discuss the student's interests and needs, and together the two of you plan the following route to Level III completion, consulting a Cabot College calendar to make sure the student will cover the prerequisites\* for entrance into Business Management. Since there are no specific science pre-requisites for Business Management, you agree upon a variety of science courses. The student is interested in attaining some computer skills, so you include IE 3212.

\*[IC 3116 is equivalent to English 3102; IM 3212, IM 3113, and IM 3216 are equivalent to Math 3203; there is no Science pre-requisite for Business Management. The high school prerequisites are covered by equivalent ABE courses.]

Student B will cover the following number of credits:

Communication Skills Credits	8
Mathematics Credits	9
Science Credits	6
Employability Skills	4
General Options Credits	<u>9</u>

TOTAL CREDITS AWARDED 36

The actual breakdown of courses is indicated in the profile for this student shown on the next page.

Revised ABE Course #	Former ABE or BTSD Course #	High School Course #	Equivalency or Maturity Credits	Credits Awarded
Level II (All)			General Opt. (Level II)	4
IC 3211				2
IC 3112				1
IC 3214 A/B				2
IC 3215				2
IC 3116				1
IM 3211				2
IM 3212				2
IM 3213				2
IM 3115				1
IM 3216				2
IS 3211				2
IS 3214				2
IS 3215				2
IE 3211				2
IE 3212				2
			General Opt. (Maturity)	3
			General Opt. (Driving, First Aid, CPR)	1
			General Opt. (Hunter Ed. & Water Safety)	1

#### ABE STUDENT PROFILE FOR STUDENT B

Student C is over twenty-nine years old, and has done two typing courses (30 hours each), a standard first aid course (16 hours), a CPR course (8 hours), a quilting course (18 hours), a floral design course (18 hours), and a Career Exploration for Women (CEW) course (180 hours). This student started but did not pass grade 10 under the old high school program and wants a high school equivalency. She reads well, enjoys literature, and intends to do a course in office administration at Cabot College. This student can have the full **five** maturity credits, **one** equivalency credit for the typing, **one** equivalency credit for the standard first aid, CPR, quilting, and floral design, and **three** equivalency credits for the CEW course.

You discuss the student's interests and needs, and agree that any work done in Grade 10 will not be considered for credit transfer because the student wants to refresh math and communications skills. The student does not, however, need to do Level II. Together the two of you plan the following route to Level III completion, consulting a Cabot College calendar to make sure the student will cover the prerequisites\* for entrance into Office Administration:

\*[IC 3116 is equivalent to English 3102; IM 3106 and IM 3207 are equivalent to Math 3202; there is no Science pre-requisite for Office Administration. The high school prerequisites are covered by equivalent ABE courses.]

Student C will cover the following number of credits:

Communication Skills Credits	9
Mathematics Credits	7
Science Credits	6
Employability Skills	4
General Options Credits	<u>10</u>

TOTAL CREDITS AWARDED 36

The actual breakdown of courses is indicated in the profile for this student shown on the next page.

Revised ABE Course #	Former ABE or BTSD Course #	High School Course #	Equivalency or Maturity Credits	Credits Awarded
IC 3211				2
IC 3112				1
IC 3113				1
IC 3214 A/B				2
IC 3116				1
IC 3219				2
IM 3204				2
IM 3205				2
IM 3106				1
IM 3207				2
IB 3211				2
IB 3212				2
IS 3214				2
IE 3211				2
IE 3212				2
			General Opt. (Maturity)	5
			General Opt. (Typing)	1
			General Opt. (1st Aid, CPR, Quilting, Floral Des.)	1
			General Opt. (CEW)	3

Student D is twenty-eight years old. She/he finished grade 9, but is not very confident. This student intends to do a Small Equipment Repair course at Central Newfoundland Regional College. She/he is entitled to three maturity credits, but has no equivalency credits. Student D reads at a grade seven level. You both agree that about half of Level II should be completed to strengthen weak areas you will determine through pre-tests. (Remember that 5 Level II courses entitles the student to one credit, and half the Level II courses entitles the student to two credits.) This student works very slowly, and would probably take a longer than usual time to complete the entire Level III program.

You discuss the student's interests and needs, and together the two of you plan the following route to completion of Central College's prerequisites\* for entrance into Small Equipment Repair.

\*[IC 3117 is equivalent to English 2102; IM 3204 & IM 3205 are equivalent to Math 2202; and IP 3213 is equivalent to Physics 2204. The high school prerequisites are covered by equivalent ABE courses.

Student D will cover the following number of credits:

6
8
10
6
<u>6</u>

TOTAL CREDITS AWARDED 36

The actual breakdown of courses is indicated in the profile for this student shown on the next page.

Revised ABE Course #	Former ABE or BTSD Course #	High School Course #	Equivalency or Maturity Credits	Credits Awarded
Level II (Half)			General Opt. (Level II)	2
IC 3211				2
IC 3112				1
IC 3215				2
IC 3117				1
IM 3204				2
IM 3205				2
IM 3106				1
IM 3207				2
IM 3115				1
IP 3111				1
IP 3112				1
IP 3214				2
IP 3215				2
IP 3216				2
IS 3213				2
IE 3211				2
IE 3212				2
IE 3214				2
			General Opt. (Maturity)	4

#### ABE STUDENT PROFILE FOR STUDENT D

Student E is nineteen years old, has 18 high school credits, reads well, and particularly enjoys literature courses. She/he wants to go to Memorial University. This student has no maturity credits, but can transfer 18 credits from high school as indicated in the profile. She/he has done two guitar courses (30 hours each), which can count as **one** equivalency credit. This student can go directly into Level III.

You discuss the student's interests and needs, and together the two of you plan the following route to Level III completion, consulting a Memorial University calendar to make sure the student will cover the prerequisites for entrance into General Studies. Memorial University has accepted ABE and states the following admission requirements:

Communication Skills: IC 3113, IC 3112, IC 3215, and IC 3321

Mathematics:	The group of IM 3210, IM 3212, IM 3115 Or
	The group of IM 3212, IM 3213, IM 3216, IM 3211 or IM 3219
Science:	The group of: Physics: IP 3213, IP 3214, IP 3215, IP 3216, IP 3111, IP 3112 Or
	Chemistry: IH 3111, IH 3112, IH 3113, IH 3114, IH 3215, IH 3116, IH 3117, IH 3118
	Biology: IB 3211, IB 3212 A/B, IB 3113, IB 3214, IB 3115, IB 3316

Between the courses the student completed in high school and the ABE courses, these requirements will be met.

Student E will cover the following number of credits:

10
10
9
4
7

TOTAL CREDITS AWARDED 40

While 36 is the minimum number of credits required, Student E may be awarded 40 credits.

The actual breakdown of courses is indicated in the profile for this student shown on the next page.

#### ABE STUDENT PROFILE FOR STUDENT E

# Chapter

Revised ABE Course #	Former ABE or BTSD Course #	High School Course #	Equivalency or Maturity Credits	Credits Awarded
		Language 1101		1
		Language 2101		1
		Literature 2204		2
IC 3211				2
IC 3112				1
IC 3321				3
		Math 1203		2
		Math 2203		2
IM 3212				2
IM 3213				2
IM 3216				2
		Biology 2201		2
IB 3113				1
IB 3214				2
IB 3115				1
IB 3316				3
		Foods 1100		1
		Fam. Liv. 2200		2
		Phys. Ed.		1
		Religion 1100		1
		Religion 2100		1
IE 3211				2
IE 3212				2
			General Option (Guitar)	1

Student F is 28 years old. She/he was part way through the BTSD Program before leaving in 1989. She/he returned in 1993 and completed several ABE courses before leaving for medical reasons. She/he now wishes to enter the Medical Radiography Program at Cabot College. The student should be advised, where possible, to follow the revised ABE program in order to meet graduation requirements as well as the pre-requisites for Medical Radiography. This student can transfer credits from BTSD and the former ABE program, and has 4 maturity credits.

You discuss the student's interests and needs, consult the Course Comparison Matrices (pages 19-29) to see where the student's BTSD/ABE units fit in, and together the two of you plan the following route to Level III completion, consulting a Cabot College calendar to make sure the student will cover the prerequisites\* for entrance into Medical Radiography.

\*[IC 3116 is equivalent to English 3102; IM 3212, IM 3213, and IM 3216 are equivalent to Math 3203; and IH 3111 through IH 3118 are equivalent to 2000 and 3000 level Chemistry courses. The high school prerequisites are covered by equivalent ABE courses.]

Student F will cover the following number of credits:

Communication Skills Credits	9
Mathematics Credits	14
Science Credits	7
Employability Skills	4
General Options Credits	4

TOTAL CREDITS AWARDED 38

The actual breakdown of courses is indicated in the profile for this student shown on the next page.

#### ABE STUDENT PROFILE FOR STUDENT F

Revised ABE Course #	Former ABE or BTSD Course #	High School Course #	Equivalency or Maturity Credits	Credits Awarded
	C-9, C-12 [= CS 3214]			2
	C-13 [= CS 3113]			1
	CS 3215			2
	CS 3116			1
IC 3211				2
IC 3112				1
	M-13, M-14,M-15 [= M 3211]			2
	M-14, M-17 [= M 3212]			2
	M-15, M-17 [= M 3213]			2
	M-10 [= M 3116]			1
	M-8, M-11, M-13 M-14 [= M 3223]			2
	M 3117			1
IM 3213				2
IM 3216				2
	S-10 [C 3111]			1
	S-10, S-17 [C 3112]			1
	C 3114			1
IH 3116				1
IH 3117				1
IB 3211				2
IE 3211				2
IE 3212				2
			General Options	4

#### DELIVERY METHODS AND TECHNIQUES

# Chapter o

	(Maturity)	

#### ABE STUDENT PROFILE FOR STUDENT G

Revised ABE Course #	Former ABE or BTSD Course #	High School Course #	Equivalency or Maturity Credits	Credits Awarded
		Gr. 10 English (Lang/Lit)		4
	4205			2
IC 3211				2
IC 3112				1
		Gr. 10 Math (Algebra/Geom)		4
	5162			1
IM 3106				1
IM 3207				2
		Gr. 10 Gen. Sci		4
		Gr. 10 Biology		4
IS 3214				2
IE 3211				2
IE 3212				2
		Gr. 10 History		2
			General Opt. (Maturity)	5

Student H is below 21 years of age, and left high school without completing Level III (Grade 12). Consequently he/she has many equivalency credits, no maturity credits, and must complete at least six Level III ABE courses to get certification. This student wants to apply for a job which requires high school completion, but does not have immediate plans for further postsecondary education.

You discuss the student's interests and needs, and together the two of you plan a route to Level III completion, considering how you can transfer credits to maximize what the student can bring from high school. You might remind the student that the preferable course of action would be to keep all options open bearing in mind that University or Engineering Technology courses might be a future option. Since Student H has decided NOT to do academic math, you should have him/her sign a Waiver Form to that effect. Student H has, in fact, more General Options than can be considered for certification purposes (10 maximum).

Student H will cover the following number of credits:

9
7
6
4
5 (but only 10 count toward certification)

TOTAL CREDITS AWARDED 36

The actual breakdown of courses is indicated in the profile for this student shown on the next page.

Revised ABE Course #	Former ABE or BTSD Course #	High School Course #	Equivalency or Maturity Credits	Credits Awarded
		Basic English 1102		1
		Gen. Business 1101		1
		Voc. English 2102		1
		Lit. Heritage 2201		2
		Bus. English 3102		1
IC 3211				2
IC 3112				1
		Consumer Math 1202		2
IM 3106				1
IM 3207				2
IM 3101				1
IM 3102				1
		Physical Sci. 2205		2
		Environ. Sci. 3205		2
IS 3211				2
IE 3212				2
IE 3213				2
		Physical Ed. 1100		1
		Typing 1102		1
		Typing 2102		1
		Morality 2108		1
		Physical Ed. 2100		1
		Foods 1100		1
		World History 2206		2
		Cult.Heritage 1200		2
		Physical Ed. 3100		1
		Family Living 2200		2
		Career Ed. 3101		1
Home Mainten. 3108	1			
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## Time Management

Once the route is mapped, you and the learner should establish time frames. Learners enroled in group classes will be bound by the time frames of the institution. However, those proceeding through the ABE program in a self-paced, individualized manner will need counselling in establishing time frames to cover the material they need in a reasonable length of time. This will be essential for those students who are directly funded by HRDC for a finite period. A student who has no equivalency credits, no maturity credits, and needs to complete both levels will have to move as quickly as possible through all the courses, and may not complete the full program within the allotted 65 weeks. According to the assumptions of the review committees who developed the ABE program, this student should try to complete Level II within six to eight weeks, and take no longer than **two weeks** to cover the objectives in one **one** credit course in Level III, (or six weeks if they are working on three courses at once). Referring back to Example #1 in the previous section, Student A, in fact, would take 70 to 75 weeks to complete the requirements for Level III graduation at this rate.

Fortunately most students are likely to bring more maturity and equivalency credits than this student. They may be exempted from doing parts of both levels, or may even write some challenge tests (if that is allowable at your institution). Such students will not take so long to complete the program.

If you find that your students are taking a great deal longer to complete courses than indicated here, consider the following possibilities:

- 1. You are including more material and work than was envisioned by the committees who developed these objectives. Is everything the student is doing actually required to meet the general learning objectives? Can you cut back on what you are asking students to do, without leaving out objectives?
- 2. You do not believe it is possible to meet the minimum standards in the course in less time. Have you completed a Program Evaluation Form (see Chapter 9) and returned it to the Department?
- 3. Particular students may be entering the course with insufficient background, for which they must compensate in the course. This is a problem of placement, rather than course design.
- 4. Particular students cannot work at that pace, and will continue to need extra time to suit their unique learning needs. HRDC-sponsored students whose individual needs dictate a slower pace may indeed experience difficulty in completing ABE Level III within 65 weeks.

# Motivation

Davis (1990) suggested a number of creative ways to maintain student incentive. Perhaps some of the following ideas may be of use to you:

- 1. Individual educational plans can help motivate students to complete tasks which are relevant to their own personal goals. If students have clear expectations they can make meaningful choices. By following an individual educational plan, and completing important goal-related tasks, each student is likely to experience continuous success.
- 2. Interactive teaching methods and materials allow adults to actively use the information they are seeking to learn. Lessons which encourage a variety of responses, both oral and written, and which use various testing formats should keep adults involved in their learning process.
- 3. Group support is important for effective learning. When possible, encourage peer tutoring and group projects. Provide a supportive environment to encourage each student to speak out and to become a vital part of the class activities.
- 4. Social and personal development are important facets of the learning experience. Studentcentred programs support student development through academic and extracurricular activities. Schedule out-of-class educational and social events (trips to museums, libraries, or holiday parties) to foster camaraderie and develop class friendships.
- 5. Recognition of hard work and accomplishment goes a long way. Rewards can come in all shapes and sizes, from an approving smile to cold, hard cash from an ABE scholarship or prize. Attaining credit for courses should provide motivational steps, while graduations from the ABE program can serve as the long-term reward. Without the reward, work is often viewed as drudgery.
- 6. Quick feedback on tests and assignments, frequent progress updates and informal evaluations are important. Adults should be apprised frequently as to the nature and extent of their progress in class. A quality individual educational plan will have progress markers built-in. Students are motivated by seeing progress on a daily basis, as tasks are completed and goals are achieved.
- 7. Instructors are important influences on students. Close teacher/student rapport provides continuous support for the student. Often this relationship is the most effective student retention strategy you can try.

# The Importance of Reading, Writing, and Study Skills

As Galgay (1990) pointed out, teachers frequently encounter "students who cannot read school textbooks because they do not possess the basic skills of how to read and comprehend. It is essential that students be able to read their textbooks since they are often used as the basic instructional tool in the classroom, despite the advances in technology and modern classroom supplementary aids". (p. 13). He listed several problems associated with a student's handling of various texts, including: specific vocabulary content, approach to abstract concepts (especially in the junior high school level), writing style, patterns and study skills. Galgay drew attention to the many technical and special words with which all students must equip themselves in order to comprehend a particular paragraph or chapter. He noted that experienced teachers usually develop a number of activities to help students learn to retain vocabulary, including crossword puzzles, scrambled words, and definition exercises. Considering the high rate of functional illiteracy in this Province, it is extremely important that ABE instructors concentrate on literacy across the curriculum.

Galgay (1990) also stressed that "one of the more common reasons for students being unable to effectively read their school textbooks is the lack of developed study skills. [Students] should develop those skills which enable them to organize the information and remember the facts and concepts presented in a particular book. There are a number of techniques suggested by experienced teachers which are used to improve study skills. Among some of them are study guides, outlines and summaries of specific headings." (p. 15).

The revision team which developed the ABE Communication Skills objectives attributed such importance to study skills that they developed the first Level II course around them. The objectives in IC 2011 cover skills which are, indeed, essential to any student's success in studying in any course or any content area, not just Communication Skills. IC 2011 can be accomplished in any context, and could be even more effective if used in another content area. Carol Jones, an ABE instructor, informed me that when she was confronted with the dilemma of covering the unfamiliar content of the IS 2015 course, the Planet Earth, without any of the suggested texts, she integrated the objectives of the IC 2011 Study Skills course with those of the IS 2015 course. The student learned to use reference books, research/library skills, note-taking, and so on, while finding the information needed to cover the objectives listed in the Planet Earth course. Both student and instructor were pleased with the result! The Etobicoke Board of Education (1987) resource book has some helpful tips for teaching study skills.

Another ABE instructor, Verna Smith, told me that, from her experience in working with adult learners, *"motivation is the key ingredient to student success in the acquisition of reading and writing skills"*. She spends a major portion of her time in communications skills courses

"*encouraging or cajoling students to read as a means to improve writing skills*". Some of her suggestions include:

- 1. Provide encouragement on a continual basis. Check often with students to monitor their progress.
- 2. Provide book lists and books in the classroom. Bring novels that you are reading to class regularly to encourage and motivate students.
- 3. Suggest books and magazines as gift alternatives for special occasions. <u>Reader's Digest</u>, for example, provides articles to satisfy a wide variety of interests.
- 4. Encourage students to read in order to "meet new and exciting people, travel to distant lands, enjoy exotic experiences, enrich monotonous daily routines, reduce boredom, and make waiting time enjoyable and informative".
- 5. Promote reading as an exciting alternative to watching soap operas or movies.
- 6. Encourage students to carry a book with them at all times. Pocket novels were intended to serve this purpose, after all.

Verna also encourages her students to keep a record of their daily activities, because "their routine, ideas, opinions, moods, and feelings are important and worthwhile". She maintains that the journal provides an opportunity to write in a logical and sequential manner, producing at least three paragraphs (morning, afternoon, and evening). She encourages students to be innovative by beginning each sentence with a different word; using sensory descriptions like sights, sounds, and smells; discussing family, community, provincial, and world happenings; describing effects of the weather on clothing, activities and routines. She provides a sample journal entry as a guide, and recommends students include "the 5 W's and H" (who, what, when, where, why, and how).

A literature section is included in Level II. Reading literature is not, to be sure, a basic skill. However, the revision team felt that **appreciation** of reading <u>is</u> an important consideration in learning how to read. The more one reads, the better a reader one becomes. If learners can develop an appreciation of reading not only as an essential survival skill in this world, but also as an enjoyable leisure-time activity, chances are that their skill level will rise. Literature was introduced in Level II on that basis. It was not expected that Level II students would study the novel, for example, in depth, but rather that they would come to appreciate what novels are by reading them at whatever level is appropriate to their own skill level. There are, in fact, quite a number of novels available at low readability levels!

# Science with Limited Resources

Science experiments are not limited to sophisticated or expensive laboratory environments. If your program does not have access to a well-equipped laboratory, there are many chemistry experiments which can be done in a kitchen, or fields trips you can make in the neighbourhood of your classroom. In fact, such practices can provide a non-threatening introduction to science in any case. There are also inexpensive alternatives to laboratory equipment. If a microscope which costs \$500.00 is out of the question, how about a microslide viewer which costs less than \$10.00? The <u>New Unesco Sourcebook for Science Teaching</u> (1973) is a useful source of ideas for science experiments, and is still available from:

Renouf Publishing Company 1294 Algoma Road Ottawa, Ontario K1B 3W8.

Marilyn Huggins, an ABE instructor at Selkirk Community College in British Columbia, wrote a resource booklet entitled <u>Science on a Shoestring</u>. In it, she converted several science experiments into projects easily completed with everyday, household ingredients. Her booklet is available for \$5 from:

Marilyn Huggins Box 32 Kaslo, British Columbia V0G 1M0.

### Audio-Visual Aids

Many of your students may not learn best from the printed word. They may well have low reading abilities and have done poorly in school before for this very reason. The use of audio-visual materials to enrich your techniques can be of great benefit to your students. Some audiovisual media you might consider are:

### Audio Recordings

Although they may have trouble with the printed word, most people are comfortable listening to radios as a source of information. A learner who is intimidated by the thought of reading a novel might be more comfortable hearing it first on tape. Public libraries and book stores now commonly carry recorded books, and audiocassette players are available in most communities. Headphones or an earplug can make these ideal resources for individualized program as well.

### Slides

A quick and inexpensive way to provide visual reinforcement and local significance just requires the use of your camera and some slide film. ABE courses like Newfoundland Culture or Ecology could be enhanced by viewing slides which you or a student have taken.

#### **Overhead Transparencies**

Overheads are more commonly abused than used! They can be very effective in making a group presentation, but <u>do not</u> copy whole pages of fine-print text or complicated figures onto an overhead transparency--save them for hand-outs. Instead, use overheads to emphasize points you are making in your discussion. Make them bold and eye-catching.

#### Videotapes (and films)

There is a wealth of materials available to you free or at low cost. Check your ABE course outlines. The resources suggested often include videos and films. Home VCR's are so common now that a student may well have access to one if your facility does not. Headphones can be used to adapt VCR's for use in individualized programs. If you are fortunate enough to have access to a video camera, you can make recordings of interviews, demonstrations, role-plays, field trips, and all sorts of wonderful activities.

### Learning Contracts

This chapter has outlined many delivery methods. However, there are as many ways to deliver the ABE Program as there are instructors/facilitators involved in delivery. The important point, in the end, is that the learner achieve her/his objectives (which may cover far broader territory than the minimum outcomes described in the ABE Program Guides). One instrument which has been used successfully by many people to help learners set and attain goals is the **learning contract**. Learning contracts, as their name implies, are signed, written agreements between learner and instructor which specify outcomes of stated learning activities. Knowles (1986) has produced examples of learning contracts which are very useful in clarifying for learners the following questions:

- 1. What are you going to learn? (Objectives).
- 2. How are you going to learn it? (Resources and strategies).
- 3. Target date for completion.
- 4. How are you going to know that you learned it? (Evidence).
- 5. How are you going to prove that you learned it? (Verification).

Learning contracts can be used to consolidate many of the decisions related to the topics covered in this chapter. Such contracts are the backbone of a truly individualized approach, which may incorporate a broad range of delivery techniques and resources. They can be used to clarify roles and issues in an orientation session. They fall in place quite naturally in plotting a customized route for each student. They are excellent time management strategies, and they can be fantastic motivators.



Certification (hence evaluation associated with it) is legislated to be the responsibility of the Institutions. The Department of Education will, therefore, not impose evaluation standards and measures upon the Community College system. However, as you work within your institution to assess, place, and evaluate the achievement of your students you may wish to consider some of the points discussed below. Four excellent resources described in the annotated bibliography in Chapter 8, Etobicoke Board of Education (1987), Meyer (1988), Division of Evaluation (1990), and SCOTVEC (1989), can also help you make decisions about student evaluation.

# Why, When, What & How to Evaluate. What's Appropriate?

# Why Evaluate?

Adults come to a learning situation with specific needs, and they want tangible evidence that the investment of their time and energy is well-placed. *"Information that provides learners with a view of their strengths, achievements, and the direction in which their work is heading gives them that evidence.... When students of any age obtain immediate feedback about their progress, they consistently learn more, retain more, and are more motivated to continue with their learning activities, "(National Center for Research in Vocational Education, 1987b, p. 6). Instructors also benefit from the information gained from assessment activities. Such information will help you decide when to move students on to new activities, when to give extra help, and where you need to make changes in your instructional plans to meet individual needs. Lastly, receiving institutions will need evidence that your students have acquired certain basic entrance prerequisites before accepting them into further education.* 

# When to Evaluate

Evaluation of students in courses and programs can be conducted at three major phases: preassessment or entrance assessment, progress assessment, and postassessment.

**Preassessment** *"involves evaluating learner's skills and knowledge in a specific area before or at the beginning of a program (or course or learning activity). It enables you to verify student placement, identify individual training needs, and determine the appropriate level at which to present new learning experiences. The results of preassessment also provide a reference point for measuring the progress learners have made throughout the program,"* (National Center for Research in Vocational Education, 1987b, p. 8).

Many community colleges routinely administer preassessment instruments such as the Tests of Adult Basic Education (TABE) or the Canadian Adult Achievement Test (CAAT) as a regular part of the enrolment and admissions process. These instruments are further discussed on page 101. Preassessment can also be used in a challenge approach to certification. If a student shows evidence that the objectives of a course or item have already been accomplished, then credit can be given and the student can proceed to the next item or course. This type of approach allows students to concentrate on the areas in which they are weak.

**Progress assessment**, also termed formative evaluation, is an ongoing process which should occur at regular intervals throughout the program. Obtaining feedback throughout the program allows learners to develop, practice, build on their skills, and get remedial help at the appropriate times. Instructors can use information garnered through ongoing assessment to provide effective learning experiences. *"As a general rule, the most valid and reliable results are provided by tests administered any time from several days to two weeks after skills and knowledge have first been learned,"* (National Center for Research in Vocational Education, 1987b, p. 8). Checklists, rather than tests, can also be used effectively by both students and instructors to assess attainment of objectives.

**Postassessment**, theoretically, sums up what the student has learned since the beginning of the program, and generally plays a large part in determining a student's final grade. Summative evaluation is another term for this process. Scholarship examinations are also often given as a postassessment.

### What to Evaluate

Learning is often categorized into three primary areas, or domains: knowledge (**cognitive**), skills (**psychomotor**), and attitudes (**affective**). Bloom (1956) was a major contributor to this theory. Although the majority of objectives listed in the ABE program are phrased in cognitive terms, many are associated with skills and attitudes. You may choose to employ learning activities which relate to these domains, and you may also wish to consider each of the three domains when designing your evaluations. Courses such as Personal Development, Career Awareness, or Literature contain objectives which involve feelings and attitudes. Similarly, many of the objectives in the science component can be achieved through laboratory work and projects. We are all familiar with tests of knowledge, but is there any way to evaluate changes in attitudes and other affective-domain learning? While feelings and attitudes cannot be observed directly, they can be inferred from behaviour as indicated by what a person does or says. Psychomotor learning can also be monitored through observation.

### How to Evaluate

"When one considers the range of skills, interests, abilities and levels of achievement to be evaluated throughout the year, and the fact that all three domains must be taken into account, it is reasonable to conclude that no single procedure can possibly be used to evaluate everything. Teachers must make decisions about what should be evaluated and which

*strategies are appropriate. A variety of evaluation techniques should be used in every course or program to provide a balanced, flexible and effective plan for evaluating student achievement."* (Etobicoke Board of Education, 1987, p. 56).

Although the word evaluation is often used synonymously with testing, there are many instruments other than traditional written tests which can be used to monitor progress and achievement. Observation, project work, participation, and cumulative credit for class work are avenues to evaluate without subjecting students to endless test-writing sessions. The importance students attribute to tests must not overshadow the importance of learning itself! However, there are times when tests are the preferred and most appropriate means of evaluating student attainment of objectives.

Written test items may be divided into two categories, **objective** and **subjective**. Objective items are those for which the correct answer will always be the same, no matter who is giving or scoring the test, while subjective items require the scorer to judge and interpret individual responses. Multiple choice, matching, true-false, and completion items are generally considered to be objective, while essay items and journals are examples of subjective assessment instruments.

#### **Objective Test Items**

#### Advantages:

- 1. These items can be answered fairly quickly, allowing coverage of a wide range of information in one test.
- 2. Answer keys can make scoring quick, easy, and accurate.
- 3. Judgement calls are neither necessary, possible, nor desirable.

### Disadvantages.

- 1. When done properly, these items can be time consuming to develop and write.
- 2. The types and levels of learning evaluated is limited to identification and recall. Analysis, synthesis, and organization must be tested by other means.

#### Subjective Test Items

Advantages:

- 1. Learners' abilities to analyze, synthesize, and organize can be tested for a broad or narrow range of information.
- 2. Creative problem-solving, an essential skill in today's rapidly changing work place, can be employed in cases where there is no one correct answer or solution.
- 3. Affective domain objectives can be covered, because there is room in subjective items for expression of opinions, attitudes, and feelings.

#### Disadvantages:

- 1. More time is needed for reading and scoring these items.
- 2. The personal judgment, opinions, and preferences of the scorer, as well as the learner, are integral to the answering and scoring processes. Absolute value is hard to assign.

Pen-and-paper tests are not the only appropriate media to use in evaluating student progress. Oral tests should be considered for students who are visually impaired or have learning disabilities. Performance tests are valuable instruments for assessing skill levels associated with attaining some ABE objectives, for example laboratory procedures in science. Checklists for instructor observation of behaviours can help in indirectly measuring changes in learner's attitudes.

### **Entrance Assessment Instruments**

There is a wide variety of prepared preassessment instruments from which you can select. Kevin Quinlan, from Labrador Community College reviewed a number:

in addition to TABE and CAAT, I recommend that you look at the Canadian Test for Basic Skills (CTBS), the Wide-Range Achievement Test - Revised (WRAT-R), or the Weshler Adult Intelligence Scale - Revised (WAIS-R). CTBS is an achievement test which assesses skills in a number of college-related areas. The WRAT-R produces Grade Level Equivalence for standard scores and percentile ranks for three areas, reading, writing, and arithmetic, from preschool to college levels. The WRAT is more diagnostic in nature, but it can assist instructors in understanding the student's areas of difficulty. The WAIS-R is an adult achievement test which ascertains overall mental ability and gives some indication of intra-individual strengths and limitations. This can help instructors focus on the individual's capabilities. We should also use such instruments as the Canadian Occupational Interest Inventory (COII), the Choices program, and the General Aptitude Test Battery (GATB) in counselling our students towards careers. In my opinion, we should be doing more than simply administering the TABE or CAAT to send people either to the left or to the right!

Since the two most commonly-used instruments for entrance assessment (or preassessment) at the community colleges are TABE and CAAT, those two are discussed in more detail below.

# TABE and CAAT--Comparison/Contrast

In 1988-89, Cherry Dalley, an instructor at the former Avalon Community College, reported on a comparison project to assess the appropriateness of TABE (1976), TABE (1987), and CAAT for admissions testing. The following are excerpts from her reports:

A comparison of the three tests showed that both the new edition of the TABE and the CAAT include the popular features of the 1976 edition of the TABE as well as other comparable added features....The most notable differences between the TABE (1987) and the CAAT are that the CAAT was designed specifically for Canadian adults, its norms are based on a Canadian sample, and it includes mechanical reasoning and science subtests as well as the basic reading, mathematics, and language subtests.

As part of this comparison project a sample group of 19 students was tested on the TABE (1976), the TABE (1987), and the CAAT....The comparison of Grade Equivalent scores shows that generally students tended to score higher on the new TABE and the CAAT than they did on the 1976 edition of TABE. This tendency might be attributable to the fact that the TABE (1987) and the CAAT were designed for and standardized with adults. [TABE (1976) was not].

Comments from students in the sample testing group indicated that, on the whole, they felt that neither one of the TABE (1987) or the CAAT was more geared toward adults than the other; that the items in one test did not seem more like they were taken from a textbook than the items in another; and that the content of the items in both tests was suitable for any adult, no matter where he/she is from.

More than half of the students tested indicated that they had felt more relaxed when writing the CAAT than when writing the TABE (1987). Some students specified that they were more relaxed when writing the CAAT because they were not timed. However, the CAAT was administered after the TABE (1987), so the fact that they felt more relaxed may be attributable to their getting used to the testing situation.

The majority of students tested said that most words used in the vocabulary section of the TABE (1987) were words they had come across in their work or daily activities; however, only one-half the students tested made this comment about the CAAT. A comparison of scores on the vocabulary sections of both tests indicates that more than one-half the students tested scored higher on the vocabulary section of the TABE (1987) than on the vocabulary section of the CAAT. A comparison of scores on the comprehension sections, however,

indicates that almost all the students tested scored higher on the CAAT than on the TABE (1987). (Dalley, 1989, pp.1-3).

The CAAT format was designed to be less textbook oriented. Subtests are untimed in order to reduce the testing anxiety experienced by many adults returning to a classroom situation. Aside from the scores and format, a significant difference to consider is expense. The CAAT is untimed. Consequently, it may take twice as long to administer as the TABE. This will cost more in terms of the test administrator's time. Also, answer sheets for the CAAT are nearly three times as expensive as those for the TABE.

The CAAT materials are available from:

The Psychological Corporation Harcourt Brace Jovanovich, Canada 55 Horner Avenue Toronto, Ontario M8Z 6X6 Telephone:(800) 268-2132 FAX: (416) 225-4046

The TABE (1987) materials are available from:

Canadian Test Centre 85 Citizen Court Unit 7 Markham, Ontario L6G 1A8 Telephone: (416) 513-6636 FAX: (416) 513-6639

# What Can We Learn from these Instruments?

Standardized achievement tests such as CAAT and TABE are given for two reasons:

- 1. to assist admissions personnel with the placement of students in programs requiring various reading/language/mathematics skills.
- 2. to assist instructors with diagnosing reading/language/mathematics deficiencies.

Dalley (1988, pp. 1-2) summarized what we can learn from TABE and CAAT as follows:

The TABE are achievement tests in reading, mathematics, and language. They do not measure specific knowledge or recall of facts; they are designed to measure understanding and application of principles. TABE can be used as a survey instrument to provide preinstructional information about a student's level of achievement in the basic skills of reading, mathematics, and language. Specifically, these tests can be used to identify general areas of strengths and weaknesses, to place students in appropriate learning groups, to assist

the teacher in preparing an instructional program to meet the student's needs, and to measure growth in skills after instruction.

Like the TABE, the CAAT is a core skills achievement test designed to assess the current functional level of adults. It is, however, a more comprehensive survey instrument than the TABE in that it contains mechanical reasoning (Levels B & C) and Science (Level C) components as well as reading, language, and mathematics....Both tests have a pretest designed to determine which level should be used if prior educational information is unavailable.

Most community colleges have traditionally used only the reading subtest for admissions purposes. In both TABE and CAAT the reading subtest is broken down into two categories: vocabulary, which is really a test of how many words the student knows; and comprehension. In CAAT the comprehension category is further broken down into four special types: Functional Reading, Educational Reading, Literal Comprehension, and Inferential Comprehension. The scores attained by a student in these categories can give an instructor important insights related to that student's needs. Comparison of the scores from the student's test with the mean scores in each category (given in the CAAT Norms Booklet, p. 32) can highlight the student's strengths and weaknesses, and indicate where remediation may be necessary. Dorm Chipp, who has many years of counselling and testing students at Western Community College, stressed that *"there are many factors to be considered when interpreting CAAT or TABE scores, such as age, academic background, and cultural background. In isolation, these may mean very little, but together they help to form a 'reading picture' of the student". He provided me with the following examples of actual CAAT test scores.* 

**NOTE:** The scores may be recorded as grade level equivalents or stanines. A **stanine score** is a type of standard score, based on dividing the normal curve into nine divisions. The term stanine is a combination of the words standard and nine. Stanine scores, then, range from one to nine (top), with a mean of five. Stanines present a broader range than do grade levels, and are less likely to give wrong impressions to instructors or students.

This 16-year old student obtained the raw scores bolded in the table below on the CAAT Level B Vocabulary and Reading Comprehension subtests. The CAAT Norms Booklet provided the information needed to compare her/his raw scores with the mean raw scores for these items, stanine scores, and grade equivalents (GE).

SUBTEST	RAW	MEAN	STANINE PROFILE			GE
	SCORE	RAW SCORE	Below average	Average	Above average	
VOCABULARY	12		1 <b>[2]</b> 3	4 5 6	789	3.9
READING COMPREHENSION	43		1 2 3	4 <b>[5]</b> 6	789	11.0
Functional Reading	21	21				
Educational Reading	24	20				
Literal Comprehension	24	22				
Inferential Comprehension	20	19				

### Individual Report for CAAT Level B

There are no sure explanations regarding the large discrepancy between the Vocabulary and Reading Comprehension scores obtained by this student. Dorm Chipp postulated, based on similar situations, that students coming from poor academic backgrounds (both at home and at school), where books and words are neither appreciated nor experienced, usually exhibit this kind of disparity in their scores. He recommended that, though able to comprehend from context, this student needs to do a large number of remedial vocabulary exercises. The discrepancy in scores may be highlighting the difference between this student's innate intellectual ability and her/his learned words.

This 36-year old student obtained the raw scores bolded in the table below on the CAAT Level B Vocabulary and Reading Comprehension subtests. The CAAT Norms Booklet provided the information needed to compare her/his raw scores with the mean raw scores for these items, stanine scores, and grade equivalents (GE).

SUBTEST	RAW	MEAN	STANINE PROFILE			GE
	SCORE	RAW SCORE	Below average	Average	Above average	
VOCABULARY	31		1 2 3	456	[7] 8 9	12+
READING COMPREHENSION	48		1 2 3	456	[7] 8 9	12+
Functional Reading	24	21				
Educational Reading	24	20				
Literal Comprehension	25	22				
Inferential Comprehension	23	19				

## Individual Report for CAAT Level B

Although this student has been out of school for many years, obviously a lot has happened in between. This student is reading at a post-high school level (12+) on both the vocabulary and comprehension subtests, and may well be capable of entering a program at a higher level than would be assumed if academic background alone was used as the criterion.

The results of TABE testing can be used similarly to help instructors to understand a learner's needs. Grade Equivalents (GE) are used in the selection of programs and instructional materials for students, and they can also facilitate the organization of study groups. Assessing the student's GE score, educational background, age (used as a reference to the student's formal education), and reading habits (past and present), combined with an in-depth analysis of her/his learning difficulties (TABE results) will help in the appropriate placement of the student. Wayne Watton, from Fisher Institute supplied the following examples of interpreting TABE scores.

This 29 year old student obtained the raw scores bolded in the table below on the TABE Level M Form 3 Skills Area: READING, Test Section 1 - Vocabulary and Test Section 2 -Comprehension. The TABE Examiner's Manual provided the information needed to compare her/his raw scores with the mean raw scores for these items to scale scores and grade equivalents.

	READING		
	VOCABULARY	COMPREHENSION	TOTAL
Maximum Possible Raw Score	40	42	82
Raw Score	18	23	41
Scale Score	386	450	408
Grade Equivalent	4.1	5.3	4.7

#### Student Profile Sheet TABE Level M Form 3

#### Analysis of Learning Difficulties

	Number of Items	Number Missed
VOCABULARY (40 Items)		
Reading Words in Context/Recall	40	22
COMPREHENSION (48 Items)		
Using Reference Skills	6	2
Recalling Facts	11	5
Understanding Main Ideas	5	2
Making Inferences	20	10

This particular student left school while attending Grade 9, approximately 14 years ago. The student has had no reading habits since grade 9 (no books, magazines, or newspapers), and her/his reading skills have regressed. Analysis of the student's TABE score reveals not only a Grade 4-5 reading level, but also that the student is a very slow reader (indicated by failure to complete all questions in the prescribed time). This student would be recommended to the ABE Level I

Program with appropriate instructional materials based upon the student's learning difficulties.

This 41 year old student obtained the raw scores bolded in the table below on the TABE Level M Form 3 Skills Area: READING, Test Section 1 - Vocabulary and Test Section 2 -Comprehension. The TABE Examiner's Manual provided the information needed to compare her/his raw scores with the mean raw scores for these items to scale scores and grade equivalents.

	READING		
	VOCABULARY	COMPREHENSION	TOTAL
Maximum Possible Raw Score	40	42	82
Raw Score	40	41	81
Scale Score	609	664	653
Grade Equivalent	10.0	10.0	10.0

### Student Profile Sheet TABE Level M Form 3

### Analysis of Learning Difficulties

	Number of Items	Number Missed
VOCABULARY (40 Items)		
Reading Words in Context/Recall	40	0
COMPREHENSION (48 Items)		
Using Reference Skills	6	0
Recalling Facts	11	0
Understanding Main Ideas	5	0
Making Inferences	20	1

This particular student successfully completed Grade 8 approximately 27 years ago and left school to take a permanent job. The student reads books, magazines, and newspapers. She/he is very interested in automotive manuals and uses the public library frequently. Analysis of the student's TABE score indicates a senior high school reading level (Level M Form # has a maximum GE of 10), and placement in the ABE Level III Program would be appropriate with course selection

based upon the student's occupational goal.

## Placement

## Criteria & Guidelines, for all Levels

Each postsecondary institution sets its own admission standards, so policies regarding placement of students may vary from one institution to another. Achievement tests scores, grade levels previously attained, other educational background, and employment history can all be used to provide information to help place a student at the most appropriate level. As an example of how to use achievement test scores as criteria, WestViking College observes the following cut-off points based on two years of informal research at that institution:

1. Entrance to ABE programs:

Vocabulary Stanine 3 (Grade levels 4.7 - 5.3) Comprehension Stanine 3 (Grade levels 5.9 - 7.7)

Students with Stanine scores of 3 and above would enter Level II (or perhaps Level III if they had completed Grade 9 in school), whereas students with stanine scores below 3 would be placed in Level I.

- Entrance to Certificate level programs: Vocabulary Stanine 4 (Grade levels 5.6 - 6.7) Comprehension Stanine 4 (Grade levels 8.1 - 9.5)
- Entrance to Diploma level programs: Vocabulary Stanine 6 (Grade levels 9.6 - 11.2) Comprehension Stanine 6 (Grade levels 12+)

# Challenge Exams/Placement Tests

Instructors familiar with competency-based systems will not be strangers to the idea of testing for placement. It makes sense to acknowledge that adults may have acquired knowledge and skills in various subjects through experiential learning and on-the-job training. A logical extension of any system which puts the needs of the student first is to allow students who are confident that they have already achieved learning objectives to write a challenge test either on selected items, or even on a whole course. Since you will have to generate questions for posttesting students who have completed items and/or courses, why not consider allowing students who already have knowledge/skills in an area to write a challenge exam for credit? If the student has accomplished some of the objectives in a course, but not all, such a test could be used to concentrate efforts on areas of weakness, allowing the student more effective use of time.

# **Student Evaluation Procedures**

# Test Construction

To a learner who has failed in the school system, tests may appear to be arbitrary collections of "trick questions" designed specifically to trap the unwary, to fail as many people as possible. If you create good tests, and are fair to your students, you will be able to help them understand the benefits and satisfaction of taking a test. There's more to writing a good test than dashing off a few questions and problems.

### Pointers

What makes tests good or bad? What qualities should your tests have?

- 1. A good test is **valid**. That is, it measures what it is supposed to measure. In other words, the test is fair, and referenced to the learning objectives stated up front in that course or unit. Do not include items or skills which the learners cannot be expected to have gained from the course.
- 2. Use test items which correspond to learner's abilities to understand and respond. Give clear simple instructions. Students cannot be expected to provide a correct answer if they cannot clearly understand the question or problem.
- 3. A test that is too long can measure students' speed in test-taking as much as it tests their knowledge.
- 4. A good test is **reliable** in that it <u>consistently</u> measures what it is supposed to measure. Objective tests tend to be more consistent than subjective, due to the influences of personal judgement in scoring.
- 5. A good test is **usable**. Tests should not be unreasonably difficult or time-consuming to prepare, administer, or score. Use no more than three kinds of items on a test, so that students do not have to waste time figuring out the type of item rather than on the subject matter. Group items of the same kind together.
- 6. Provide early success by putting easier items at the beginning to help students "warm up".
- 7. Multiple-choice items comprise a stem (problem or question to be answered) and several responses, one of which is the one correct answer, while the rest are incorrect distracters. Stems should be clearly and unambiguously stated. Do not use negative stems--many people will miss the small word <u>not</u> when under pressure. All distracters

should be completely incorrect, but plausible, and written in the same format as the correct answer. There should be only one correct answer. Avoid using a predictable pattern of correct answers. Four or five responses is enough.

- 8. **Matching** items require students to identify relationships between words and concepts, or symbols and objects. To avoid confusion, use sequential numbers for one list, and letters for the other. Provide extra responses to reduce the possibility of guessing the correct answer by elimination, but keep the responses brief and clear. Make sure the whole matching section appears on one page. Again, avoid using a predictable response pattern.
- 9. **True-false** items are not terribly reliable since there is a 50-50 chance of guessing the right answer.
- 10. **Completion** items are better for testing recall, as opposed to identification, of the correct answer. Only significant terms should be omitted, and the item should provide enough information so that the student can know how to respond. There should be only one correct answer for each term that is omitted, and even then you will have to allow leeway in scoring for answers expressed in different words which have the same meaning.
- 11. **Essay** items can be used to assess much higher levels of thinking and communication skills, or achievement of affective domain objectives, but must be used with care for those students who do not have well-developed verbal and written communication skills. Decide precisely what information you want to request, and what knowledge or abilities you will evaluate in writing an essay item. The essay item should clearly state the type of information or solution the learner should provide, and how that information should be presented. Scoring elements should be identified and the weight or point value identified (for example, content, organization, grammar, spelling, and clarity). Some types of essay items you might consider are:
  - <u>summary</u>, to assess ability to recall, identify, and report essential elements of a body of information
  - <u>critical analysis</u> or <u>critique</u>, to determine whether learners can identify, analyze, and weigh strengths, weakness, limitations, or unique characteristics
  - <u>comparison and contrast</u>, for evaluation of identification and discussion of similarities and differences
  - <u>case study</u>, to assess ability to analyze a situation or problem and recommend an effective solution. Such case studies should be presented in a realistic and relevant manner, and could employ alternate techniques, such as videotapes.

If you prepare a model answer in point form as an answer key, you can reduce subjectivity in scoring. The Etobicoke Board of Education (1987) resource book described in the bibliography in Chapter 8 has a helpful criteria checklist for marking essays.

12. To construct a psychomotor performance test, decide in advance whether you will evaluate product, process, or both. Develop a task sheet, a list of materials, tools and equipment, a

checklist of criteria, and a rating scale. Trades programs often rely upon such evaluation techniques.

13. Attitude scales can be used to assess student achievement of affective objectives. For example, a Likert scale, also called a rating scale, supplies a statement to which the student responds on a scale varying from strongly agree to strongly disagree. Henerson, Morris and Taylor Fitz-Gibbon (1978) produced a small handbook which can help you construct such scales.

### Software

Several computer packages will allow you to accumulate banks of test questions and generate endless numbers of test forms.

One such package is <u>Test Composer</u> by Vernon Johnson, promoted as "valuable to teachers who must regularly prepare alternate forms of a test, or test to measure mastery of a specific set of objectives. Items may be stored and coded for type, class, difficulty level, and objective. Item types include true/false, multiple-choice, matching, short answer, and essay. Has editing utility". It is configured for IBM PC, and is available from:

Bertamax, Inc. P.O. Box 31849 Seattle, WA 98103 Telephone: (206) 547-4056.

The College Board <u>Computerized Placement Tests</u> are another alternative you might want to research. Information is available from:

The College Board 45 Columbus Avenue New York, NY 10023-6992.

### Grading Systems & Conversion Between Them

A number of grading systems are in fairly common use, including letter grades or numerically equivalent grade points and percentage systems. The table on the next page compares such approaches:

RATINGS	MASTERY	PERCENT
A	Exceeds Performance Objectives Without Assistance	80 - 100%

### GRADE CONVERSION CHART

В	Performs Objectives Satisfactorily with Periodic Assistance	65 - 79%
С	Performs Objectives or Significant Aspects Thereof with Extra Time and Assistance	50 - 64%
СС	Student's Career Choice Did Not Include This Course	
SC	Successfully Completed	
NC	Not Completed	
ТС	Transfer of Credit	

Final grades often reflect a learner's total achievement, accumulating results of each graded test or learning activity with a pre-determined weight. Regardless of how the relative value of learning experiences is actually established at your institution, however, **learners need to be made aware of these values at the beginning of the program**.

# Test Anxiety

Many adults re-entering the educational setting bring with them negative memories and feelings about taking tests. Anxiety, intimidation, low self-esteem, fear of failure, and physical discomfort can all lead to stress which will negatively affect a learner's performance, and result in an inaccurate reflection of that person's capabilities or knowledge. As an instructor, you can help such students greatly, not only in your course, but in future educational endeavours, by empowering them with positive attitudes toward taking tests. Here are some pointers:

- 1. Provide positive and informative feedback throughout the course to prepare students to take tests.
- 2. Explain and provide students with written information on how the course will be evaluated.
- 3. Create fair tests which match the objectives of the course. Students should not be surprised by the contents of tests. Explain to students that a good test is not an arbitrary collection of problems designed to fail students. Help students view tests as positive learning devices, designed to determine where they are in relation to meeting their objectives, and to identify areas that need to be strengthened.
- 4. Acknowledge possible anxiety as a common and normal phenomenon which does not necessarily equate with poor results. Group discussions about testing may help the whole class gain confidence.
- 5. Offer tips on how to study for and complete an exam, for example:
  - Space out studying. Do not cram. Set up a timetable for regularly studying each

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course.

- Focus on main points and concepts when you study.
- Your physical condition is important. Get a good night's sleep rather than cram before a test.
- Read instructions thoroughly before answering any questions. Ask questions if you do not understand what you are supposed to do. Write legibly. Review answers.
- Determine how much time can be spent on each test item. Leave questions for which answers are in doubt until last. Do not let the hard parts keep you from doing well on the easy parts.
  - Use test results as a learning tool.

The Etobicoke Board of Education (1987) resource book described in the bibliography on page 156 has some excellent student handouts on study skills and essay-style questions which purchasing schools are permitted to photocopy for classroom use.



# Education and Career Counselling

Few adults return to the educational setting for the sake of education alone. For the majority, their aim is improvement of educational credentials for employment. A high school equivalency, such as an ABE Level III certificate, may be necessary for obtaining a job or a promotion, or for entrance into further training. You, as their prime contact with the education system, will be expected to provide the advice students need in pursuing their career goals. The National Center for Research in Vocational Education has produced teacher education modules on how to provide information on educational and career opportunities and how to assist students in applying for employment or further education. You can find the address on page 158.

# Entrance Requirements for Further Study

Memorial University of Newfoundland (MUN) has accepted the revised ABE program and will be including it in the MUN calendar in listing prerequisites (see Appendix B). Other receiving institutions such as the Schools of Nursing, Armed Forces, and RCMP are aware of the revised ABE program. If ABE prerequisites are not specified, use the high school prerequisites and the Course Comparison Matrices to select equivalent ABE courses. You will need to make sure you keep current calendars from all the postsecondary institutions on hand for this purpose.

### Sources of Further Information

### Looking Ahead: A Guide for Senior High School Students

This guide is produced and updated annually by the Department of Education, School Services Division. Although it is written in terms of the high school system, it contains a wealth of valuable information on career planning, educational and career alternatives, entrepreneurship, scholarships, and financial assistance. Copies are available from the Department of Education and Training.

### Career Support Services

"Helping Build Careers" is the motto of this division of the Department of Employment and Labour Relations. Career Support Services has many career-related services that both instructors and students can use to learn about career opportunities available.

The **Career Information Hotline** is a toll-free telephone service that instructors, students, and counsellors can call to obtain information on:

- career planning
- · occupations, descriptions of work, salary ranges, and employment trends
- employment and career programs
- education and training opportunities
- job search techniques.

The **field services** section of the Division works cooperatively with other agencies and organizations in planning new initiatives aimed at promoting career development.

Instructors and counsellors can utilize the **Career Information and Resource Centre (CIRC)** to borrow print and video resources that can be used to assist students with their career development. These resources cover career planning, life skills, job search, education, and training. A catalogue of materials is available upon request.

The Career Support Services Division has developed a number of publications that can help with career planning. Available are: a series of factsheets describing occupations, a directory of postsecondary opportunities throughout the province, and <u>Open Your Own Doors</u>, a booklet on career planning.

To access any of these services or to obtain more information, contact the **Career Information Hotline (1-800-563-6600)**.

### Hot-100

This information guide to federal funding sources and support for jobs, training, learning opportunities, services and resources, is produced by the Public Affairs Branch of Employment and Immigration Canada. To obtain copies write:

Enquiries and Distribution Employment and Immigration Canada Ottawa-Hull K1A 0J9

### **Scholarships**

Postsecondary scholarships awarded through the provincial government for which adult basic education students qualify are described below. Further information should be available from your college committee which selects students for scholarships.

### The Florence O'Neil Adult Education Memorial Scholarship

Five of these scholarships, valued at \$1000 are awarded annually, one at each community college, to students enroled in Level III of ABE.

### The David Lawrence Memorial Award for Literacy

To be eligible for this \$500 award, a student must be enroled in the Adult Basic Education Level I program for at least two terms and meet the selection criteria established by the Selection Committee.

# **Recognizing and Handling Problems**

## Drop-outs and Retention Strategies

We must not lose sight of the fact that education may often have to take a back seat to other concerns in an adult's life. Adults drop out of classes because of personal problems: transportation, child care, health, scheduling conflicts, and myriad other personal barriers to participation. Or they may drop out of class because they lack motivation, self-esteem, goals, or do not believe they can do the work.

Whatever the problem, instructors can often be part of the solution. Davis (1990) described a retention survey conducted by the Learning Resources Network (LERN) and stated: *"it is not enough that teachers in these programs know their subject matter and present it in an effective manner; often, teachers must motivate and inspire students, and help them solve problems. In the LERN retention survey, providing a supportive teacher was listed by most correspondents as the best deterrent to student dropout."* (p. 6).

Davis (1990, p. 8) listed specific tasks a supportive teacher performs:

- 1. makes student feel like part of the group
- 2. checks to see that student is comfortable (physically, mentally)
- 3. counsels students
- 4. refers students to helping agencies
- 5. helps solve problems
- 6. keeps a positive, supportive, caring attitude
- 7. helps students set goals
- 8. teaches student problem-solving skills
- 9. contacts students who miss class

10. provides career counselling information.

This LERN survey recommended that *"adult students require periodic closure. ABE programs that divide instruction into 6-12 week modules, with some kind of a break between classes, would seem ideal,"* (p. 8). Our ABE program with its credit courses can lend itself well to this approach.

Davis (1990, p. 11) also advocated the use of **student-centred** programs to enhance retention for the following reasons:

- 1. **Student-Centred Programs Provide Motivation**. By focusing on learner's needs and interests, you can motivate students by encouraging them to pursue goals they have set themselves. Teachers who set goals arbitrarily for students (without student input) risk serving the program rather than the learner. This is not conducive to adult motivation.
- 2. **Student-Centred Programs Enhance Learning**. Adults learn better when they are pursuing personal goals they set themselves. When possible, curriculum should contain matter familiar or interesting to students. This enhances motivation and focuses attention on the program. Nothing could be less motivating for a new learner than to start off with curriculum and goals totally alien to him or her.

# Student Support

Davis (1990) categorized two types of support needed by adult education students, day-to-day and crisis support, describing them as follows:

### Day-to-Day Support

Davis (1990, pp. 16-17) highlighted a number of support systems which should be incorporated in student-centred program structure to handle the diversity of student needs, including:

- 1. **Encouragement.** The foremost system of daily support is continuous friendly encouragement from teachers and administrators.
- 2. **Counselling.** Personal, academic, and career counselling should be provided to students, either by professional counsellors or by teachers and/or referral resources.
- 3. Life-Planning Skills. Empowerment skills such as goal-setting, problem-solving, and critical thinking should be included in student curriculum. (They are covered in our ABE Program).
- 4. **Rewards.** A system of frequent, relevant rewards should be built into the program structure. These should consist of informal encouragement and recognition from teachers, as well as

# Instructors' Handbook ABE LEVELS II & III

concrete rewards.

- 5. Assimilation into the Group. Each student should feel he or she is a vital part of class activities. Identification with the class and program enhances retention.
- 6. **Student Activities.** These activities can do much to promote class/program identification and student assimilation into the group. In addition, student activities can be an important part of the education process, as well as an important opportunity to provide rewards.
- 7. **Remove Barriers.** Transportation, child care, flex-scheduling are just a few of the many services that programs can and should provide to students (when possible). Often these problems can be solved on an individual basis by counsellors or teachers, when budgets do not allow for special services.
- 8. **Identification of At-Risk Students.** Programs should pay particular attention to identifying and assisting students who are most likely to drop out.
- 9. Employment/Social Services Referral. A network of community agencies with particular contact persons should be established to assist students with problems. In cases where programs do not have extensive budgets to handle tasks (such as counselling, job search, child care, transportation) often other agencies can assist with these services.

### **Crisis Support**

Davis (1990) also recommended establishing contingencies for assisting students with major problems that affect not only class attendance but also personal/family well-being, including referral information about the following community resources:

- 1. Crisis counselling
- 2. Emergency health care
- 3. Emergency legal aid
- 4. Temporary housing

Students in adult basic education programs frequently have serious personal problems in addition to lack of educational skills. Although programs cannot provide the above services, referral networks should be in place to deal with serious problems, and instructors should make themselves aware of community resources in their area.

# Absenteeism

Undoubtedly, adults will have times when they must be absent due to their manyresponsibilities. If they understand that they can negotiate such leaves of absence, and that someone cares, they
may be more likely to return. The retention strategy mentioned most frequently in the LERN survey (Davis, 1990) was to **phone students after absences**. Several teachers/administrators also mailed letters or postcards to absent students. If the student is funded by an agency which has a definite policy on absenteeism, the student should clearly understand that policy from the beginning of the program. A written statement of attendance regulations should be given to each student at orientation, as well as kept posted in the classroom.

## Life Skills

Many adults entering basic education programs have poorly developed **life skills**, ie. those skills and behaviours which allow mature and effective management of their personal affairs. Originally, the BTSD program actually had a Life Skills component for this reason. Although the ABE Program does not have a component labelled as life skills, it does have objectives which cover them. In Level II, IC 2011, IM 2015, and IS 2012 will help build life skills. In Level III, IC 3214, IM 3203, IE 3211, IG 3215, IE 3213, and IE 3214 contain objectives which will help learners develop essential skills to manage their personal affairs and cope with the responsibilities of being a mature adult. These Level III courses will also contribute credits toward certification, so you may want to counsel your student to take any or all of them, depending upon his/her needs. Alternatively, you might consider offering a two-week orientation session in which you concentrate on life skills. This approach could be particularly beneficial to an adult who has been out of school for a long time and is re-entering at Level II. Many of the objectives in IE 3214, Personal Development, could be covered in such an orientation.



# Flexibility

The learning objectives listed in the ABE Program Guides provide a bare framework upon which ABE practitioners may build programs which suit their clients. Many of the objectives are knowledge-based. Cognitive objectives are, of course, the easiest to describe and to measure in terms of achievement. Many, however, are naturally associated with affective aspects and psychomotor skills. The print references listed with the objectives often offer learning activities which involve affective and psychomotor components which correspond to the cognitive objective expressed.

The print references are also only one avenue to covering the learning objectives. Also suggested in many cases are other resources including audiovisual presentations, sources of speakers, and materials for hands-on work. In developing programs at your institution, you are free to enhance the delivery of the stated objectives by using many different presentations, resources and approaches to delivery.

# Selecting Appropriate Resources

## Readability Levels

One of the biggest headaches in selecting suitable ABE print resources is matching texts to the reading level of your learners. An Adult Basic Education Level I **Reading Assessment Kit** is an adult reading inventory developed by Cabot College in 1994 and will help in determining readability levels. Copies are available from your local college campus. There are also computer programs which will compute readability levels on text for you. If you do not have access to such packages, you may be interested in a manual computation. Quite a number of researchers have developed complicated mathematical formulas for assessing readability levels, but few people actually use them. One of the simplest methods is the Readability Graph published by Edward Fry and reprinted, with directions, below.

#### Fry's Readability Graph

Follow these steps to plot the readability level of the text you are considering:

- 1. Select three 100-word passages from near the beginning, middle, and end of the book. Skip all proper nouns.
- 2. Count the total number of sentences in each hundred word passage (estimating to the nearest tenth of a sentence). Average these three numbers (add together and divide by 3).

- 3. Count the total number of syllables in each hundred word sample. Average the total number of syllables for the three samples.
- 4. Plot on the following graph the average number of sentences per 100 words and the average number of syllables per 100 words. Most points fall near the heavy curved line. Perpendicular lines mark off approximate grade-level areas.



This graph was developed by Edward Fry of the Rutgers University Reading Center, New Brunswick, NJ 08904. Reproduction is permitted - there is no copyright. An example of how to use the graph follows.

Sample	Sentences per 100 words	Syllables per 100 words
1st 100-word sample	6.6	124
2nd 100-word sample	5.5	141
3rd 100-word sample	6.8	158
Total	18.9	423
Average (divide by 3)	6.3	141

**EXAMPLE**: Estimation of readibility level of <u>Focus on Physical Science</u>.

Plotting these averages on the Graph for Estimating Readability on the previous page indicates about a 7th-grade difficulty level.

For further information and validity data, see the April, 1968 <u>Journal of Reading</u> and the March, 1969 <u>Reading Teacher</u>. To use the formula on shorter passages see <u>Journal of Reading</u> 33(8), 594-597.

#### Software

Two of the many available editorial-type packages which will check documents for all sorts of grammatical errors, make suggestions about style, and give summary reports which include readability levels, are:

1. Right Writer: The intelligent grammar, style, usage and punctuation checker for your PC

Computerland
Telephone (800) 387-2477
FAX (416) 458-2165

2. <u>Grammatik II: The Writing Analyst</u> (also III, & IV which needs to operate under a piece of software called <u>Microsoft Windows</u>)

Available in Canada from: Business World Telephone (800) 668-4305 FAX (416) 792-6537

## Developing Learning Activity Guides and Packages

You may choose to produce some learning activities guides or packages yourself. A learning activity guide is a prescription sheet which refers the student to specific pages in reference texts or to other media. Producing a learning activity package involves writing, drawing, recording, or filming the material yourself. If you are a Communication Skills instructor, you may have come from a background in which you honed your writing skills. If you have not produced many written course materials before, and if you have no experience in program development, you may find the following suggestions helpful:

- 1. Be organized from the start. Work from an outline. In the ABE courses, the objectives can provide this framework, since the material you develop should be referenced to the learning objectives. You may, however, want to change the sequence of the objectives to suit your preferred order of delivery. Generate assignments, answer keys and tests at the same time as you produce the learning activities.
- 2. Choose words that are appropriate to your subject and your audience. Consider the readability level you want to attain. Say what you mean, at the right level, and say only what needs to be said. Active voice of verbs is more direct than passive. Short words and short sentences are clearer. Avoid wordiness and excessive use of jargon. Do not inundate the student with too much material. You may have to omit material that is nice to know to do justice to what the student needs to know. Avoid going off on a tangent, even if it is one that interests you.
- 3. Make sure the words you use are free of bias. Avoid gender and ethnic stereotyping.
- 4. Search for ways to heighten interest and keep attention. Include humour and locally or personally relevant examples. Consider learning styles and vary your presentation.
- 5. If you use someone else's work, respect copyrights. Many authors will give permission to use material if the package you produce is not for sale. Recent copyright legislation is much stiffer than it used to be. According to the <u>Publications Handbook</u> published by the Department of Education (1988), under the Canadian Copyright Act, the author of a work, published or unpublished, is the only person allowed to copy that work or grant permission to others to copy it (except when the copyright is owned by the author's employer or publisher, or when the document was funded by government). Copyright applies to any original work, such as a book, a poem, a musical composition, a drawing, a photograph, a film, a painting, a tape, or a record. It is a writer's responsibility to avoid plagiarism. It is permissible to include short quotations (up to 500 words) from another person's work or paraphrases of it for the purposes of illustration or criticism, provided that the source is acknowledged. The use of photographs, diagrams, or sections taken from another's work without permission and acknowledgment constitutes infringement under the Copyright Act.

**NOTE**: In 1987 a memo from the Deputy Minister of Education cautioned community college principals that "as a condition of purchase or lease the Department and the colleges

are legally bound to ensure that employees do not make illegal copies or otherwise distribute this software and documentation to external parties. It is important that the staff and clients who use the programs or have direct access to them, continue to recognize both their, and our, responsibility in this respect."

- 6. Use a computer and save your work on diskette. Editing, revising, and fine tuning will be much easier.
- 7. When you have completed a learning activity package, put it aside and review it later. If it is print, read it out loud. Ask a colleague to review it. Use an editor to check grammar and punctuation (Communication Skills instructors can be a great help).
- 8. Consider the visual quality of your final copy. Make sure the layout is attractive. Do not cram too much on a page; white space is restful to the eye. Use an appropriate font. Fonts with serifs help lead the eye along a line. (Serifs are the little lines which stem from the upper and lower ends of the strokes of a letter, as in this capital letter, M. This handbook uses a font, Times Roman, which has serifs. Helvetica is an example of a font which does not have serifs). Highlight or bold key points. Use graphics. Make good, clear copies.

## Print versus Computers, Videos, and other Media

As Chapter 2 stressed, there will be some learners for whom print is not the best resource. There are many creative alternatives you may wish to consider. For example, Franklin Learning Resources produces the <u>Language Master-4000</u>, an electronic dictionary which pronounces words out loud, phonetically corrects spelling, and gives complete definitions and synonyms using 83,000 words from the Merriam-Webster dictionary. If you want a free catalogue, write:

Franklin Learning Resources 122 Burrs Road Mt. Holly, NJ 08060.

While computer technology has become extremely popular, and you may want to avail of its advantages, you may wonder how to find, review, and evaluate computer-assisted instruction packages. A tutorial package designed to help adult literacy educators use computer technology in instruction, <u>Introduction to Computers for the Adult Literacy Educator</u> presents

the basics of computer hardware and software as used in an educational setting. It covers such topics as: hardware, software, integration, trends, labs, networks, costs, brands, and philosophy. For more information or an order form, contact:

The Institute for the Study of Adult Literacy The Pennsylvania State University 204 Calder Way, Suite 209 University Park, PA 16802 Telephone: (814) 863-3777 FAX (814) 863-6108

## Involving Learners in Searching Out Resources

The Program Guides for the ABE program provide a list of learning objectives and recommended resources for each course. However, depending on your location, you may find that you do not have any of the texts which are recommended for a course. Alternatively, you may find that the resources you have do not work well for a particular student. Carol Jones, an instructor at WestViking College, gave me examples of how she has handled this type of situation. Her approach is appropriate for any adult learning situations:

"When I first started working with the new ABE program, I had very few resources: manuals for Levels II and III, major mathematics textbooks, outdated science books, students from last year, new students, 20 years of teaching experience, and enthusiasm. Immediately, I found out that these resources were not enough." Here are two examples of her solution to filling the gaps she found:

#### EXAMPLE #1

"Rod, an enthusiastic 22-year old with grade eight education, developed the Level II Math outline for me. He read the curriculum, searched through the math books available, wrote reference pages on the curriculum sheet, and compared the new curriculum with the old curriculum for reference books and similar exercise workbooks. Using both new curriculum and old curriculum resource books, Rod did various exercises/workbook sessions per specific objectives of the new curriculum. After fulfilling the requirements per objective, Rod wrote a test. This test was gleaned from the old BTSD textbooks and the new curriculum math exercises. Rod and I had to do this type of exercise for the entire Level II Math component, since the only reference we had was the curriculum printed in the new Level II program guide."

#### EXAMPLE #2

"Sheila, a mature 27-year old wanting a nursing career, helped me to develop the new Genetics curriculum. Again, with only one new biology textbook, she and I wrote references per objective. I also contacted a genetics professor-friend of mine on sabbatical and persuaded him to give a lecture (complete with hand-outs and overheads) explaining meiosis, mitosis, DNA, RNA, and

protein synthesis. Sheila is currently working through Genetics and she will be writing the examination covering the specific objectives of the program. I feel assured that she will pass the exam with an 80% score or better."

Carol added a rather inspiring qualifier to her examples: "In order for this type of learning to have maximum positive results, the new ABE student must be enthusiastic, a self-starter and a self-learner. The instructor, on the other hand, should be willing to work with and for the student. She/he must be willing to admit that she/he does not have all the answers, but is willing to find the sources of these answers. Ultimately, the instructor must let the student use resources with which the student feels most comfortable. Enthusiasm must be the key for both instructor and student in the new ABE program."



## Background

In 1990, just as the new Adult Basic Education Program was being implemented in colleges across the province, the Instructional Services Unit of Labrador College undertook a pilot project to develop a distance education approach to the delivery of ABE. They developed learning packages for all the Level II and most of the Level III courses. Student course manuals may be purchased from Labrador College. In January 1995, the Burin Campus of Eastern College piloted an ABE Home Study Program. Because the pilot proved so successful, the program expanded in September 1995 to include the whole college region. According to Louis Greene of Placentia Campus, "Eastern has taken a common sense, whatever-works approach to the delivery of this program". Materials are mailed out and the student is placed on a weekly call schedule by his/her instructor. Further information may be obtained from any campus of Eastern College.

This chapter was written by Winnie Montague of Labrador College for tutors involved in the distance delivery of ABE. Please note that throughout this chapter, the terms student/learner and tutor/teacher are used interchangeably.

## Introduction

Distance education, as an alternative delivery system, can provide a total learning experience outside of the traditional classroom. For those who live in remote areas with no access to a traditional learning environment, and also for those who, for a variety of reasons, cannot leave their home to continue their learning, plans are under way that will enable ABE to be accessed through a correspondence homestudy program. Students will be given the opportunity to study at a pace, place and time of their choosing.

Materials for delivery of any course by distance are designed so that the student becomes the "manager" of the learning process. The role of the tutor then becomes one of providing support to ensure that the learner is, in fact, learning the content. When instructional materials are designed to support the content in an instructional program and the particular needs of the target learner population, the learner can then be provided with a holistic learning experience which is rewarding, enjoyable and comparable to that of the traditional classroom.

# Methods and Strategies

The distance learner in Canada is typically an adult between 25 and 40 years old enroled parttime, possibly with work and home commitments. Since learners in any target learner population find certain methods of learning more appealing and effective than others, it is important to accommodate different learning styles, such as: mentally-centred learners who use the visual to stimulate learning, rationally-centred learners who prefer interaction, and physically-centred learners who learn best by a hands-on approach. A fully integrated learning experience should include many dimensions, and the right mix of components can meet individual requirements. Chapter 2 contains more information on learning styles.

The selection of the best media approaches and the amount of inter-activity needed between learners and tutor are important considerations in determining the methods and strategies in course delivery. The basis for selecting either a single media or multimedia approach will be determined by the requirements of the subject content, nature of supplementary materials, and the technical resources which are available.

### Correspondence

The basic and essential medium of correspondence is print. The print material in a learning package should include everything that the student will require to complete the course often including the textbook. Other components such as audio and video cassettes can be used for demonstration, enrichment and interaction.

#### Teleconference

For courses in which discussion is an important aspect of delivery, teleconferences and telewriters are powerful media. Through the facilities of the Telemedicine and Educational Technology Resources Agency (TETRA) in St. John's, tutors can converse with students across the province. Interaction with the tutor through this medium can give learners an opportunity to voice concerns and discuss matters related to the course. Interaction with other students is also possible.

## Videotape

The popularity of the home VCR enables students to benefit from the use of videotaped material in conjunction with other delivery modes. Whenever course content lends itself to visual treatment such as scientific demonstrations, guest interviews, and video "field trips", use of videotapes can be very effective.

#### Audiocassette

Audiocassettes can be particularly valuable in homestudy courses by providing information, taped discussion, lecture material, dramatizations, poetry reading, and music. This mode is very effective in improving reading, writing and spelling skills, and its use requires that students take a more active role by interacting with the instructional material rather than just passively reading it.

# Television

Telecourses are broadcast by television to the students directly into their own homes. Courses delivered through the use of this medium must be enhanced by specially-designed instructional materials.

## Support Devices

Instructional support is essential to provide an effective distance learning service. Usually the tutor gives this support in most distance learning systems, providing the important human element to the learner. Typically, the communication between tutor and learner is by **telephone**, but other means may also be used. **Mail service** can be used to transmit the students' written work, although slow service may result in delayed feedback to the student. This can be crucial to students who are experiencing problems, and may result in a student falling behind if problems are not identified quickly enough.

A **facsimile machine**, an alternative to mail service, is quite effective for submitting written work and providing timely feedback. This can also ensure quick resolution of some problems.

Another way to avoid lengthy delays in the mail service is to use **electronic mail**. This allows a person to use a microcomputer to create assignments, tests, and examples, and then transfer the data via a modem to another location. The person on the receiving end can retrieve the data for viewing, editing, and correcting on a word processor.

## Role of the Tutor

Regardless of the mode of distance delivery, the tutor's support is essential. The traditional classroom student/teacher face-to-face interaction is not a feature of distance learning, and some form of support structure must replace it. The tutor is most commonly the link between the learner and the course material, providing instructional support by means of content backup for the learning packages, marking assignments, and providing encouraging feedback.

## Skills and Characteristics

Tutoring at a distance requires particular skills and characteristics. As tutor, your **philosophy and attitude** towards the course material is important and should be communicated to students. This can help to motivate them. Your **attitude towards the learners** is crucial. A good tutor is open, encouraging, supportive, positive, relaxed and informal. The tutor's **energy and enthusiasm** are important. **Flexibility** must be maintained; the tutor and learner set out to achieve certain objectives, but must remain open to positive change. **Good listening skills** are critical to providing positive and appropriate responses. If communication is by telephone or teleconference, **expressiveness and tone of voice** must act as substitutes for facial expressions and body language. An effective tutor lets personality show through; the idea is to "**be yourself**" rather than to act in an impersonal manner. Expressions of friendliness are especially important to students at a distance, and they require small acknowledgements and courtesies even more than do students in a regular classroom setting. Students are working in isolation, in most cases, so the program can easily seem impersonal. Remember that your distance student "goes to class" by opening the course manual at the end of a demanding day which may include a long work shift, family responsibilities, and household chores.

The relationship between the learner and the tutor is a critical factor influencing successful learning. **Mutual respect** is integral to that success, and this is likely to occur when you, as tutor, recognize the needs of your students.

A **tutor's expertise** in a subject is essential to providing high quality service to students. It is your responsibility to study carefully all activities and supplementary resources, and to become thoroughly familiar with the course material.

Learners attach great importance to the ability of their tutors to communicate well. Clear understanding of what they are expected to do enhances students' learning.

## Tutor Support to the Learner

As mentioned earlier, teachers at a distance must make every attempt to provide students with the best possible learning experience. Classroom instructors have at their disposal an assortment of media and methodologies which they can use as they see fit to meet the needs of their students. This kind of flexibility is not readily available to distance tutors, so you and your students will have to make use of every possible available resource.

Your task as tutor will be easier if you take time initially to become familiar with background information on your students. The learning experience for the student can be a little more personal if students can get to know you. A short autobiography and a recent black and white photograph can introduce you and can be included in the learning package.

Aim to build your students' confidence, to lead learners into self-reliance, and stimulate learners to take advantage of activities that are most meaningful and applicable to them. Student materials are student-centred, not teacher-centred, and you should facilitate learning by providing general support to learners. Making some means of communication available also increases retention rate of students. Continuing participation is likely to occur if there is supportive instruction. Keep in mind that adult students are usually studying to fill a specific need; and they should be given a sense of directing their own learning. You can reinforce the principle of self-directed learning by referring students to resources outside the course itself when applicable, especially those resources which make the material relevant. Community libraries can be an important resource for reference purposes. If a computer-managed learning system (such as PLATO) is available, arrange access to it. Remember, however, that some distance students may be housebound or living in remote areas, so suggest the use of outside learning resources in such a way that the optional nature is obvious.

Another form of support is routine contact with each student. Support at a distance might include tutoring by phone, teleconferencing, faxing or planned visits. These contacts are the lifeline between learners and distance education teachers, so a warm dialogue is essential. You may schedule this, or your students may initiate contact when experiencing difficulties. Your students may need special counselling and personal guidance to help them through difficult stages. Praise and encouragement are important motivators, particularly for those students who are not used to working independently. Cultivate a one-to-one relationship with each student.

Recognize and accept, however, that there are very real limitations in positively affecting student motivation. Many learners, especially adults, lack confidence in their ability to learn and may require assistance at frequent intervals during their studies.

There are ways in which you can motivate distance learners. Support your student's efforts. Give credit and praise for work completed. Offer positive comments and constructive criticism. Encourage best effort. Identify strengths as well as weaknesses. Note and communicate your student's progress towards course completion. Be open and honest, giving clear and concise feedback concerning quality of work. Include model answers where necessary. Challenge bright students, and encourage students to develop good work habits.

The effectiveness of a distance program relies heavily on the turnaround time for assignments, as this is a primary vehicle of learning for the student. Prompt return of marked assignments enables students to correct errors and improve their understanding of the material being covered. Should you experience delays in marking and returning assignments, inform students, supplying reasons. Personal attention given to completed work is very important to the student. Detailed and useful comments on work which you have assessed can increase your students' motivation.

An effective support structure begins with a registration process and ready access to course texts and instructional material. If possible, visit communities so that you can meet your students. Many adult learners come to a learning experience after a long absence from any regular schooling and find that they need to "learn how to learn" again. Provide access to refresher study skills guidelines, and a detailed orientation to both the course materials and the method of delivery. Chapter 2 provides other suggestions which can help you.

Another great source of support to distance learners is an institutional distance newsletter. This can contain pertinent information on procedures, important dates, related articles of interest and news about upcoming events and courses.

## Role of the Distance Learner

Students who enrol in a distance learning program are usually highly motivated to learn and often very knowledgeable and experienced in certain areas. Some of them have been away from school for a long time, and most are studying alone. For whatever reason, they are not taking the course in a classroom; therefore, they are never completely separated from the distractions of bills, family, unemployment or the demands of work. For adults, learning is usually a means to an end, not an end in itself. They are **self-motivated** and require leading rather than pushing. Despite the need for anonymity, they need praise to bolster self-esteem. To be successful in learning at a distance, they must have the ability to proceed at their own pace. They want to learn courses which can be integrated into previous knowledge and relevant to their own experience. Finally, adult learners must be treated as individuals. Each student has individual needs and these needs must be recognized and accepted.

Students taking ABE by distance have **adult interests and concerns**. In Level II and III courses, you can assume that the student has some background knowledge, but even then, a review of some content may be necessary because the student may have been away from the subject for many years. It is important to remember that they cannot immediately clarify points they do not understand.

In distance learning, not only does the student become the **"manager"** of the learning process but of necessity, must be self-directed. Responsibility is placed on students to play a vital role in meeting the challenge which is offered, and in fulfilling their own needs. It is through their own determination that they will successfully complete courses.

**Home study** requires complete concentration. Students should set aside a particular area of their homes in which they can be completely alone for a specified time. Length and frequency of study periods depend upon the student's regular schedule. The student should ensure that there will be no interruptions during study time. If possible, they should set aside a specific time of day and adhere to it conscientiously. A very important requirement for positive study should be a time for rest and relaxation before starting. Even a short 15 minute period can ensure a rested, alert mind and a readiness to learn. Students should set up a good home study setting, including a desk or table on which to work, good lighting to avoid eye strain and a comfortable bench or chair to ensure a positive learning experience.

Students should develop and consistently employ good **study habits**. Good **reading habits** are crucial and the student should work on improving them. Progression through courses will stimulate motivation, increasing initiative and fostering self-discipline. Control of one's own destiny is among the advantages of home study.

Many factors determine the **number of courses** a student is able to handle at one time. Students must recognize the amount of study time involved in an ABE course. Students who have been out of school for some time must realize that some effort will be required to adjust to a routine of

study, new methods and different concepts. They should begin at a moderate pace.

## Guidelines for Evaluation at a Distance

Evaluation, important to the development of every learner, is an integral part of a distance education program. It assists in determining the needs of students, assessing the effectiveness of learning materials, and determining the extent to which learning objectives have been met. The why, when, what and how to evaluate, as outlined in Chapter 4, applies not only to the traditional classroom setting but is also true for delivery by distance. However, the way in which instruments for evaluation are used may differ when utilized in the distance mode.

In any type of evaluation, formal or informal, students should know the learning outcome from the beginning and how their progress is to be evaluated. They should be told if and how assignments will be graded. They must know what completed work has to be sent to the tutor and how this differs from other activities which are not graded.

For distance students, interaction with the tutor is an extremely important part of the delivery process. Feedback on progress must be as immediate as possible, reinforcing positive elements and addressing any difficulties that are identified. Use of available technology means that lengthy delays can be avoided, thus providing students with feedback that is often needed to maintain motivational levels.

## Self-Appraisal

This type of evaluation helps students recognize their own strengths and weaknesses. By including activities that require self-assessment, students also gain immediate feedback and clarification at early stages in the learning process. Tutors need to promote a responsible attitude toward these self-assessment activities, as instruments to help students become independent learners. Self-appraisal can also help students develop a positive attitude toward their own progress.

Practical exercises and student self-tests are used to provide an awareness of progress made in reaching objectives. Answers to these instruments are appended to the student unit booklets. This provides the student with immediate feedback and permits corrections before proceeding to the next lesson. If a student is having difficulty, more practice may be needed. The student may need to be encouraged to do additional exercises which are included in the activity. Course content includes such activities as "Extra Help" activities and "Enrichment" activities. Students are expected to select the pathway best suits their needs, or to do both.

## Assignments

Assignments may be included in the course manual, or each unit may contain a separate booklet called the Assignment Booklet. This type of evaluation assesses the knowledge or skills that the student has gained.

Assignments are invaluable aids in ongoing assessment of students' achievement, and the behaviour or attitudes which affect that achievement. For each student, the first assignment is likely to be the most important. You should make sure you give clear feedback on it. Most students have been away from school for some time and may have doubts about their ability to further their education. They will eagerly await the return of the first assignment to see how well they have done, what assistance they have been given, and the how much personal interest and recognition you have shown. For this reason, you should look for something to praise if possible.

Give positive, constructive feedback to your students by correcting, allocating marks and writing comments about their progress on each assignment. It is important to maintain the same standard/expectation of course grading throughout a student's progress. An assignment takes considerable time to complete. If you make no mark or notation on it, the student may wonder if you read or marked their work at all. The grading scheme you use will be in accordance with the policy of your institution.

When commenting upon a student's assignment, remember:

- 1. Write the comment or explanation next to the answer to which it refers. Lack of space should not discourage comment. Use the reverse side of the sheet or add an extra page.
- 2. Try to find something to commend even if an assignment is done poorly. Do not comment on only the incorrect work, but give praise and encouragement when it is warranted.
- 3. Explain the loss of marks. Correct wrong answers. You may want to attach explanatory material which you have prepared and photocopied.

What happens if a student stops submitting assignments? Retention efforts may be required. You can play an important role in encouraging students to continue. Make direct contact to find out the student's intention. Your concern may provide the incentive necessary for the student to regain momentum.

## Examinations

**Examination questions should correspond to the learning objectives stated in the course**. Results are used to determine student achievement and course effectiveness. The result of an examination is usually in the form of a grade or mark which shows both you and your student how well the material has been mastered, and allows progress to be measured against a predetermined criterion.

## Unit Evaluation

You may wish to have students evaluate each unit to determine the effectiveness of course content and delivery. Using a scale, students could rate the course materials, technology used, interaction with the tutor, unit tests and assignments, and any other aspects which are relevant to a particular unit.

## Course Evaluation

Learners should be given the opportunity to comment on the course content, the learning process incorporated into the course, and tutor performance. As tutor, you can provide valuable feedback, also, on course completion rate, retention rate, student interest in further exploration of topics, and further distance courses. Gathering such data will help in decision making.

## Course Management/Record Keeping

Good management of a distance learning system is essential to the success of the program. In order to monitor and evaluate student progress through a course of study you must keep records of students' work. You will also need to track assessment to ensure a well organized, effective delivery system. Management and maintenance of learners' records are very important, and you should address them within your institution's rules and regulations.

## Monitoring Student Progress

You will need to record when units are completed by each student. Encourage students to keep a personal log as well. You might keep track of your students' progress in a chart such as this:

MATH 2011	COMPLETION DATES				
Student Names	Unit 1	Unit 2	Unit 3	Unit 4	Final Exam
Joe Smith	Oct.6	Nov.6			
John Peters	Oct. 1	Oct. 27			
Mary Rose					

#### SAMPLE STUDENT PROGRESS CHART

### Recording Student Assessments

You will need to record the marks awarded to each student for work completed in each unit assignment. The marks from these assignments may contribute to a portion of the student's final mark. Here is a sample assessment chart:

#### SAMPLE STUDENT ASSESSMENT CHART

MATH 2011	Unit 1 15%	Unit 2 15%	Unit 3 15%	Unit 4 15%	Final Exam	Final Mark
Joe Smith	67	54				
John Peters	43	54				
Mary Rose						

NOTE: Marks shown indicate the student's overall mark on that unit assignment.

#### Recording Effectiveness of the System

You should keep ongoing records of how the system is working. This will help in future planning. The following chart depicts a format which could be used to record both problems and positive aspects of any materials used in a distance learning package. This information could have some bearing on changes and revisions made to a learning package, thus making it more effective for future use.

#### SAMPLE SYSTEM ASSESSMENT CHART

UNIT 1		-	
Date	Module Booklet	Assignment Booklet	Resources/Media

## **Distance Learning Package**

A distance delivery learning package must be specially designed. It may incorporate only print resources, it may use a variety of other components as well. However, print is the dominant medium for correspondence. The student learning package must include everything a student will need to progress through, and complete, a course through homestudy. By necessity, laboratory kits and videos will have to accompany the printed content in the Science subject area.

A distance education package has advantages for both students and teachers. It opens up opportunities by overcoming barriers that result from geographic location. It incorporates a strong learner-centred philosophy and promotes such qualities as autonomy, independence and flexibility. It can be delivered through media which suit the needs and circumstances of the learner, and can be made relevant to the experiential background of students. It promotes individualized learning, allowing learners to work at their own pace, and includes different routes through the materials to suit different learners.

The ABE distance learning packages for each course contain:

- the student course manual
- the recommended text(s)
- assignments
- the final examination
- the tutor course manual

## Structure of the Student Course Manual

The content in the Student Course Manual is organized into units (or modules) which may be contained in separate booklets. These booklets contain activities that instruct students and guide them through the course material.

The structure of the unit booklet follows a systematic design employing techniques to enable

learners to learn on their own. It begins with a detailed **table of contents** which shows the students not only all the main steps but also acts as an organizer. An overview follows, introducing the topic or theme of the unit, and then the **evaluation information** section states the weighing of assignments.

The **lessons** section of the booklet contains student activities that develop skills and knowledge with references to the recommended text. The activities may involve print, audio and video formats. At times, there may be a choice of activities that best suit the student's needs and interests. Although a selection of media may be offered to the student, a print pathway to achieving the course objectives is always available. Other optional activities such as "**extra help**" and "**enhancement**" incorporate flexibility and cater to individual needs. Answer keys to these activities are appended to each unit booklet. The **summary** focuses on the skills and strategies that the student has learned.

The **unit assignment** contains activities to be used for assessment. Students are directed to complete the assignment after thoroughly reviewing unit material. They can then mail or fax the assignment to the tutor for correcting and marking. It is important for the student to understand the value of the assignment and how it relates to the final mark for the course. Answers to assignments are included in the **secure document** which is part of the Tutor Course Manual. Other forms of the assignment may be produced.

### The Final Examination

A final exam is included with each package and is also a part of the secure document in the Tutor Course Manual, along with answers and marking guidelines. The exam is photocopied for students, and other versions of an exam may be created. The exam measures all learning objectives in the course, and midterms may be administered where appropriate.

## Tutor Course Manual

This is your copy of the learning package. It contains answers to the learning activities as well as relevant points, tips, suggestions, and teaching strategies which may be specific to the content material in each course. As previously mentioned, examinations and assignments with answers and marking guidelines are included in the tutor package. You should retain these documents and keep them secure.

## Supporting Documents for Distance Delivery

For any distance education program, an effective system of administration and management must be put in place to ensure its success. Without the proper support system, confusion and delays are likely to result.

The distance learning package is just one element of an effective distance education system. Other documents which provide necessary support to those who are responsible for the administration and delivery of the program include the Student Information Booklet and the Administrator's Guide described below.

### Student Information Booklet

This handbook includes general information about ABE distance courses. It provides preliminary information to the student such as methods of delivery, assessment and evaluation, the credit system, roles of tutor and learners, support services, contact people, administrative details and course descriptions.

## Administrator's Guide

This document provides implementation information to those who are responsible for administering ABE courses by distance. It includes specific information, detailing: delivery methods, registration procedures, fee collection, exam administration, and the expectations of the learner/tutor/administrator.

## Models of Distance Delivery

There are many modes and methodologies of distance delivery. The success of the mode of delivery chosen for any given program depends on a number of factors, including:

- 1. remoteness and isolation of the target community
- 2. the facilities and resources available to students
- 3. the support system provided
- 4. motivation of students
- 5. effective program administration and management
- 6. nature and quality of course materials.

The following models depict some methods used by distance programs. Depending on the human, physical and financial resources available, these models can be adapted to suit the particular needs of the students served by your institution.

#### MODEL #1

Print as the primary medium of delivery with a tutor in each community.



Each block represents a community or group of communities in which students have a tutor available to them. This model allows face-to-face interaction as required, as well as contact by telephone.

#### MODEL #2

Print as the primary mode of delivery (interaction with a tutor upon student request).



In this model, students are required to be very motivated, self-directed and independent in their learning. They are provided with the learning package for the course and instruction needed to proceed through the course. The tutor's telephone number and schedule are provided to students, who contact the tutor for assistance when encountering difficulties. A facsimile machine can also be used for this purpose, as well as for communicating assignments.

The tutor may wish to initiate contact with students by telephone or a planned visit at the beginning of the course, and maintain this contact throughout even if assistance is not requested, because support is essential and interaction important.

### MODEL #3

Print with teleconferencing as the media of delivery.



In this model, students have regular interaction with the tutor. Group size and time determines how this mode of delivery can be utilized most effectively. The telephone and facsimile machine could be used for interaction as well, keeping long frustrating delays to a minimum and virtually guaranteeing immediate feedback.



"In my experience, most people who help adults learn care about content, participants, and results. You care about content enough to share it. You care about participants enough to be both supportive and challenging. You care about results enough to want your instruction and the total program to benefit the participants' lives. Your commitment to learning and growth for participants is likely to extend to similar benefits for yourself. It is almost a truism that effective instructors learn as much as the participants." (Knox, 1986, p. 218). There are various sources of information by which you may further your professional development.

### Associations

Professional associations can be a wonderful source of information in your field and support in your job. Publications, conferences, and opportunities to network are benefits which accrue from belonging to a formal group of colleagues. Most of these associations have both institutional and individual categories of membership. You may want to join yourself, or have your college consider membership. Here are some you could consider:

Association of Canadian Community Colleges (ACCC) 110 Eglinton Avenue West Second Floor Toronto, Ontario M4R 1A3

Canadian Association for Adult Education (CAAE) 29 Prince Arthur Avenue Toronto, Ontario M5R 1B2

Canadian Association for the Study of Adult Education (CASAE) Dr. D.R. Garrison, Associate Dean Faculty of Continuing Education University of Calgary 2550 University Drive NW Calgary, Alberta T2N 4M5

Canadian Library Association (CLA) 200 Elgin Street Suite 602 Ottawa, Ontario K2P 1L5 Telephone: (613) 232-9625

Newfoundland and Labrador Association for Adult Education (NLAAE) P.O. Box 6161 St. John's, Newfoundland A1C 5W4

### Further Education

If you are interested in taking courses or pursuing a graduate degree in adult education, here are a few possibilities which may interest you:

<u>Ontario Institute for Studies in Education (OISE)</u>. The Department of Adult Education at Oise offers courses in adult learning and education in a variety of settings. Program's of study are available at the certificate, master's, and doctoral levels. For more information, write:

The Registrar Ontario Institute for Studies in Education 252 Bloor Street Toronto, Ontario M5S 1V6

<u>St. Francis Xavier University (St.F.X.)</u>. The Department of Adult Education offers a Certificate Program and a Master of Adult Education to persons who are professional adult educators. The Master of Adult Education Program is, with the exception of the Orientation Workshop, a distance learning program. For more information, write:

The Registrar St. Francis Xavier University Antigonish, Nova Scotia B2G 1C0

<u>University of New Brunswick (UNB)</u>. The Graduate Academic Unit offers a Master of Education (Adult Education) specialization for people in government, voluntary organizations, or postsecondary institutions who already possess a recognized degree and at least two years' experience in working with adult learners. For more information, write:

The School of Graduate Studies and Research University of New Brunswick College Hill Box 4400 Fredericton, NB E3B 5A3

<u>Memorial University of Newfoundland</u>. Memorial does not offer a Master's Degree level specialization in Adult Education, but you can do courses in Adult Education there.

# Annotated Bibliography of Resources for Practitioners

Although volumes could be devoted to annotated resources in adult education, here are just a few you might consider adding to your library:

Booth, S., & Brooks, C. (eds). <u>Adult Learning Strategies: An Instructors' Toolkit by Ontario</u> <u>Adult Educators</u>. Ontario Ministry of Skills Development.

This helpful handbook was compiled by and is available from: Literacy Branch of the Ontario Ministry of Education 6th Floor, 625 Church Street Toronto, Ontario M4Y 2E8

Brookfield, S.D. (1986). <u>Understanding and Facilitating Adult Learning</u>. San Francisco: Jossey-Bass.

Brookfield writes well, and this readable textbook is a definitely worthwhile addition to your collection of adult learning material. The address for Jossey-Bass, one of the biggest publishers of adult education books, is:

350 Sansome Street San Francisco California 94104

Brundage, D.H., & Mackeracher, D. (1980). <u>Adult Learning Principles and Their Application to</u> <u>Program Planning</u>. Toronto: Ministry of Education, Ontario.

Although this text is a bit dry, it is often on the compulsory reading list in adult education courses.

Carnevale, A.P., Gainer, L.J., & Meltzer, A.S. (1990). <u>Workplace Basics: The Essential Skills</u> <u>Employers Want</u>. San Francisco: Jossey-Bass.

This book is a valuable resource which delves into the skills employers have deemed essential for successful employment. The chapters cover: learning how to learn; basic competency skills (reading, writing, and comprehension); communication skills (speaking and listening effectively); adaptability skills (solving problems and thinking creatively); developmental skills (managing personal and professional growth); group effectiveness skills (working with others); and influencing skills (making a difference). These are all topics which are covered in the ABE program, and this book will help instructors understand why the skills are important to adults in the workplace.

Cross, K.P. (1981). <u>Adults as Learners: Increasing Participation and Facilitating Learning</u>. San Francisco: Jossey-Bass.

If you have no formal training in adult education, this is a good background text for understanding the broad adult education picture.

Cross, K.P. (1979). <u>Accent on Learning</u>. San Francisco: Jossey-Bass. As is Cross's other book, this text is a good addition to your library. Davis, R. (1990). <u>Retaining adult education students:</u> A how-to guide for practitioners. Manhattan, Kansas: Learning Resources Network.

This handbook guide to ABE/GED/AHS student retention is based on a nation-wide search for retention ideas and exemplary programs. It provides skeletal information on: characteristics of a quality program, student-centred approach, designing retention plans,

tracking retention results, tips, strategies, and examples. Available from:

Learning Resources Network (LERN) P.O. Box 1448 Manhattan, Kansas 66502 Telephone: (913) 539-LERN

Division of Evaluation. (1990). <u>The Evaluation of Students in the Classroom: A Handbook and</u> <u>Policy Guide</u>. St. John's, NF: Department of Education, Government of Newfoundland and Labrador.

Recently produced for the elementary and secondary school systems of this Province, this handbook has a great deal of information which would be helpful to teachers of adults as well. It is available **free** from:

Pamela Janes Division of Evaluation Department of Education P.O. Box 8700 St. John's, NF A1B 4J6 Telephone: (709) 576-3033

Draves, W.A. (1984). <u>How to Teach Adults</u>. Manhattan, Kansas: Learning Resources Network. This small, inexpensive teacher's resource book is well worth the \$7.95 price tag. It gives practical advice and information on: how adults learn, helping adults learn, preparing the course, measuring results, your first class, involving your participants, teaching techniques, and program evaluation. It can be accompanied by <u>How to Teach Adults, the Video</u> which costs \$100.00. Both are available from LERN (address above).

Etobicoke Board of Education. (1987). <u>Making the Grade: Evaluating Student Progress</u>. Toronto: Prentice-Hall, Canada.

Although this book was written for use in the elementary or secondary school, it has a global approach, and contains a wealth practical suggestions, and is definitely a tremendous Instructors' resource. Included in the items covered are: rationale for evaluation, effective evaluation, consideration of cultural influences and other factors.

Fleet, J., Goodchild, F., Zajchowski, R. (1990). <u>Learning for Success: Skills and Strategies for</u> <u>Canadian Students</u>. Toronto: Harcourt Brace Jovanovich.

This book was written for the student, and can help you facilitate the essential "learning how to learn" skills.

Henerson, M.E., Morris, L.L, & Taylor Fitz-Gibbon, C.T. (1978). <u>How to Measure Attitudes</u>. Beverly Hills, CA: Sage Publications.

This small handbook gives helpful information on how to construct measures of attitude change. It is available from:

Sage Publications, Inc. 2455 Teller Road Newbury Park, CA 91320 Telephone: (805) 499-0721 FAX: (805) 499-0871

Hiemstra, R., & Sisco, B. (1990). <u>Individualizing instruction: Making learning personal</u>, empowering, and successful. Jossey-Bass: San Francisco.

This book is a wonderful resource which contains a wealth of useful information which can be applied to our ABE Program. It is a comprehensive, how-to guide for planning, organizing, and implementing an effective personalized process for instructing adults to help them achieve their full learning potential.

Knox, A. B. (1986). <u>Helping Adults Learn: A Guide to Planning, Implementing, and Conducting</u> <u>Programs</u>. San Francisco: Jossey-Bass.

If you have no formal training in adult education, this is an excellent background text for understanding the broad adult education picture. It covers understanding and enhancing adult learning, learning activities, learning environments, instructional materials, and strategies for improving your instruction.

Knox, A.B. (1980). <u>Developing, Administering, and Evaluating Adult Education</u>. San Francisco: Jossey-Bass.

This text focuses on the importance of the administrator in determining program efficiency and effectiveness.

LERN. (1988). <u>Recruiting adult education students</u>. Manhattan, Kansas: Learning Resources Network (LERN).

This is a compilation of promotional ideas which have been used successfully to recruit students for adult basic education programs in the United States. Available from:

Learning Resources Network (LERN) P.O. Box 1448 Manhattan, Kansas 66502 (913) 539-LERN

Meyer, M. (1988). <u>Test Item Construction: A Self-Instructional Manual</u>. British Columbia Ministry of Advanced Education, Training and Technology.

This 120-page manual gives guidelines for constructing and formatting various kinds of test questions including multiple-choice, true/false, matching, three-choice, short and long answer, and graphic representation questions. It covers evaluating other test materials for accuracy
and relevance to your needs, and can be used by any instructor for self-instruction or reference. Available from:

Open Learning Agency Marketing Department 7671 Alderbridge Way Richmond, BC V6X 1Z9 Telephone: (604) 660-7780 FAX: (604) 660-2272

National Center for Research in Vocational Education. (1986). <u>Individualize Instruction</u> (2nd Edition). Columbus, Ohio: The Ohio State University.

This series of performance-based teacher education modules covers the following categories:

Category A Program Planning, Development, and Evaluation

- Category B Instructional Planning
- Category C Instructional Execution
- Category D Instructional Evaluation
- Category E Instructional Management

Category FGuidance

Category G School-Community Relations

- Category H Vocational Student Organization
- Category I Professional Role and Development

Category J Coordination of Cooperative Education

Category K Implementing Competency-Based Education (CBE)

- Category L Serving Students with Special/Exceptional Needs
- Category M Assisting Students in Improving Their Basic Skills.

Available from:

AAVIM, American Association for Vocational Instructional Materials 120 Driftmier Engineering Center University of Georgia Athens, Georgia 30602 Telephone: (404) 542-2586

Renner, P.F. (1983). <u>The Instructors' Survival Kit: A Handbook for Teacher's of Adults</u>. Vancouver, BC: Training Associates Limited.

This common-sense handbook describes "prime survival tools--techniques that you can use at random to break the ice with a new group, to present information, to involve learners,

and to utilize standard visual aids". It is not geared toward adult basic education, but many of the techniques still apply. Available from:

Training Associates Limited 2665 West 42nd Avenue Vancouver, BC V6N 3G4 Telephone: (604) 263-7091.

Renner, P.F. (1988). <u>The Quick Instructional Planner</u>. Vancouver, BC: Training Associates Limited.

This "learn-as-you-go guide" suggests a ten-step process for designing an instructional plan. Is was not written with ABE in mind, but for the new instructor there are some valuable suggestions. Available from Training Associates, address above.

SCOTVEC (Scottish Vocational Education Council). (1989). <u>National Certificate: A Guide to</u> <u>Assessment</u>. Glasgow: Hanover House.

Each community college has a copy of this excellent resource. Further copies are available from:

Hanover House 24 Douglas Street Glasgow, Scotland G27NQ

Tuckman, B.W. (1988). <u>Testing for Teachers</u>. Toronto: Harcourt Brace Jovanovich. This comprehensive little book has sections on why and how to evaluate, constructing objectives, basing test items on objectives, using different types of items for different purposes, measuring performance with checklists and scales, assessing reliability and validity, measuring achievement with published test batteries, interpreting test results, and getting the most from a testing program.

Wlodkowski, R.J. (1985). <u>Enhancing Adult Motivation to Learn</u>. San Francisco: Jossey-Bass. This text is another which appears on the reading list in many courses on adult learning and will increase your understanding of how to facilitate adult learning.

### Periodicals

An excellent source of current information lies in the many journals, magazines, and newsletters which publish articles and papers written about adult education themes. For a relatively small investment, you can have these publications show up regularly in your mail to keep you in touch with the latest developments in theory and practice. If you are in the St. John's area, Memorial University library carries a large collection. Below is information on a selection of publications you may want to investigate.

<u>Adult Learning</u>. This magazine is published eight times annually by the American Association for Adult and Continuing Education. It includes articles on opinions, theory, techniques, and practice in adult learning. Various texts and new products are advertised. To subscribe write:

American Association for Adult and Continuing Education 1112 16th Street, NW, Suite 420 Washington, DC 20036

<u>Adults Learning</u>. Published monthly by the National Institute of Adult Continuing Education (England and Wales), this periodical provides up-to-date information on current developments in practice and policy. To subscribe, write:

NIACE 19B De Montfort Street Leicester LE1 7GE

<u>Adult and Continuing Education Today</u>. This newsletter is published twice weekly by LERN. It includes short articles on professional development, marketing, teaching tips, learning, business news, education, and society. Available from:

LERN 1550 Hayes Drive Manhattan, Kansas 66502

<u>Adult Education Quarterly</u>. Published by the American Association for Adult and Continuing Education, this journal is dedicated to dissemination of theory and research findings in adult and continuing education. See <u>Adult Learning</u> for address.

<u>Adult Literacy and Basic Education</u>. This periodical is published three times annually by the Commission on Adult Basic Education. It is dedicated to the sharing of research findings, opinions, news, and practice among the international body of practitioners and theorists working in adult literacy and basic education. To subscribe, write:

Adult Literacy and Basic Education P.O. Box 592053 Orlando, FL 32859-2053

Canadian Journal for the Study of Adult Education. This journal is published twice yearly by the

Canadian Association for the Study of Adult Education and distributed to its members. It contains articles related to research and theory in adult education. Subscription is also available through:

Dr. D. H. Brundage Department of Adult Education Ontario Institute for Studies in Education 252 Bloor St. W. Toronto, Ontario M5S 1V6

<u>Educational Leadership</u>. Published by the Association for Supervision and Curriculum Development, this journal is intended primarily for leaders in elementary, middle, and secondary education, but is also useful to anyone interested in curriculum, instruction, supervision, and leadership in schools. Many of the articles are quite appropriate to adult educators, for example the October 1990 edition was dedicated to "learning styles and the brain". For subscriptions write:

Educational Leadership 1250 N. Pitt St. Alexandria, VA 22314-1403

<u>International Journal of Lifelong Education</u>. This journal provides an international forum for the debate of the principles and practices of lifelong education. It is published quarterly by:

Taylor & Francis Inc. 1900 Frost Road Suite 101 Bristol, PA 19007

<u>Learning</u>. This magazine is published by and distributed to members of the Canadian Association for Adult Education. It contains articles on theory and practice in adult education in Canada. To subscribe, write:

Canadian Association for Adult Education (CAAE) 29 Prince Arthur Avenue Toronto, Ontario M5R 1B2

<u>Lifelong Learning, an Omnibus of Practice and Research</u>. This magazine is published eight times annually by the American Association for Adult and Continuing Education (see <u>Adult Learning</u> for mailing address).

<u>Reflections on Canadian Literacy</u>. This quarterly journal aims to improve communication among Canadian educators, and among Canadians and colleagues in other countries. It covers theory and practice at the pre-school, elementary, secondary, and adult levels. To subscribe write:

Reflections on Canadian Literacy Department of Curriculum and Instruction University of Calgary 2500 University Drive NW Calgary, Alberta T2N 1N4

<u>Soundbone</u>. Published by the Newfoundland and Labrador Association for Adult Education, this periodical focuses on issues of local concern in adult and continuing education. To subscribe, contact:

Newfoundland and Labrador Association for Adult Education (NLAAE) P.O. Box 6161 St. John's, Newfoundland A1C 5W4



There are two perspectives from which you may be interested in viewing the effectiveness of your ABE program: (1) the program itself, and (2) the delivery of the program. Delivery is an internal concern, and you may want to consider the benefits of having your students evaluate the program, or the teaching strategies you employ. A written questionnaire could be an effective means to providing them an opportunity to voice their feelings about the program, and provide you with feedback and direction.

#### ABE Program Review and Monitoring (1992-1994)

In September 1992, two years after the introduction of the new ABE program, the Department of Education and the five regional colleges commissioned a review. An ABE Review Committee representing the five colleges and the Department of Education was mandated to review all aspects of curriculum and delivery. The review included site visits and college-wide surveys. The Committee submitted a Review Report to the regional colleges and the Department of Education in May 1993. The report made recommendations based on the information collected. One of the report's recommendations was that a permanent ABE Monitoring Committee, representing the regional colleges and the Department of Education, be established. The ABE Monitoring Committee was established in September 1993. They were given the authority to recommend program changes and to establish mechanisms for continual program review.

#### ABE Revision (1995)

In November 1993, the Monitoring Committee conducted a survey of instructors in all ABE delivery sites. Results of those surveys were compiled and distributed to instructors. Instructor Validation Committees were appointed with representation from the five regional colleges. A Department of Education representative also participated in the validation process. Survey results were discussed in each college prior to the April 1994 validation meetings. At these meetings, Instructor Validation Committees summarized recommendations for reviews of all sections of the Adult Basic Education program. In October 1994, the Program Monitoring Committee (now the ABE Standing Committee) assigned specific portions of the review process to the five regional colleges as follows:

Cabot College - revising the Level I Program Guide; Eastern College - integrating new Science learning objectives for Levels II and III; Central College - integrating new Communication Skills learning objectives for Levels II and III; WestViking College - integrating new Mathematics learning objectives for Levels II and III; Labrador College - updating course matrices. All revisions were completed in 1995.

Copies of the October 1995 edition of the Adult Basic Education **Program Guide** are available from the Department of Education and Training or your local college campus. The ABE Standing Committee with the Department of Education and Training will continue to monitor this program. Continuous program evaluation is critical and if we are to maintain the quality of ABE, your input is essential. To facilitate that process, the following forms are included for your use.

# ABE Program Evaluation

### **Objectives**

As you implement the ABE Program, we would be pleased to have your feedback on the course objectives. Please complete this form at any time and return it to:

René Enguehard Program Consultant Department of Education and Training Government of Newfoundland and Labrador P.O. Box 8700 St. John's, NF A1B 4J6

NAME

AFFILIATION \_\_\_\_

COURSE

1. Did you encounter any problems in implementing this course? If yes, please describe:

2. Were there objectives you would add, delete, or change? If yes, please list:

3. Please recommend any changes you feel would improve this course:

## **ABE Program Evaluation**

Reference Texts and Other Resources

As you implement the ABE Program, we would be pleased to have your feedback on the course references and resources. Please complete this form at any time and return it to:

René Enguehard Program Consultant Department of Education and Training Government of Newfoundland and Labrador P.O. Box 8700 St. John's, NF A1B 4J6

NAME

AFFILIATION

COURSE

1. Did you find the recommended text appropriate for attaining the objectives listed?

- 2. If no, why not?
- 3. Is there another text you feel would provide more appropriate coverage? If so, please give title, author, date, publisher, and a brief annotation.
- 4. Are there other resources you have found work well in offering this course? If yes, please describe:

Afflack, R. (1982). Beyond equals. Oakland, CA: Math/Science Resource Center.

Blackwell, P.J. (1982). <u>Spatial Encounters: Exercises in Spatial Awareness</u>. Newton, MA: WEEA Publishing Center.

Bloom, B.S. (1956). <u>Taxonomy of Educational Objectives: Handbook 1. Cognitive Domain</u>. David McKay Co., Inc.

Brookfield, S.D. (1986). Understanding and Facilitating Adult Learning. San Francisco: Jossey-Bass.

Brundage, D.H., & Mackeracher, D. (1980). <u>Adult Learning Principles and Their Application to</u> <u>Program Planning</u>. Toronto: Ministry of Education, Ontario.

Carnevale, A.P., Gainer, L.J., & Meltzer, A.S. (1990). <u>Workplace Basics: The Essential Skills</u> <u>Employers Want</u>. San Francisco: Jossey-Bass.

Crocker, R. (1989). <u>Towards an achieving society</u>. St. John's: Task Force on Mathematics and Science Education.

Cross, K.P. (1979). Accent on Learning. San Francisco: Jossey-Bass.

Cross, K.P. (1981). <u>Adults as Learners: Increasing Participation and Facilitating Learning</u>. San Francisco: Jossey-Bass.

Dalley, C. (1988). <u>Canadian Adult Achievement Test (CAAT) and Tests of Adult Basic Education</u> (TABE): A comparison of rationale and development, scope and sequence, special features, and price. St. John's, NF: Avalon Community College.

Dalley, C. (1989). <u>Comparison of TABE (1976), TABE (1987), and CAAT</u>. St. John's, NF: Avalon Community College.

Davis, R. (1990). <u>Retaining adult education students: A how-to guide for practitioners</u>. Manhattan, Kansas: Learning Resources Network.

Department of Education. (1988). <u>Publications Handbook</u>. St. John's, NF: Department of Education, Government of Newfoundland and Labrador.

Galgay, F. (1990). Everybody's business. St. John's, Creative Publishers.

Henerson, M.E., Morris, L.L, & Taylor Fitz-Gibbon, C.T. (1978). <u>How to Measure Attitudes</u>. Beverly Hills, CA: Sage Publications.

Hiemstra, R., & Sisco, B. (1990). <u>Individualizing instruction: Making learning personal, empowering,</u> and successful. San Francisco: Jossey-Bass. Karassik, J. (1989). <u>Literacy and learning disabilities: A handbook for literacy workers</u>. Ottawa: Learning Disabilities Association of Canada.

Kolb, D.A. (1984). <u>Experiential Learning: Experience as the Source of Learning and Development</u>. Prentice-Hall.

Knowles, M. (1986). Using Learning Contracts. San Francisco: Jossey-Bass.

Knox, A. B. (1986). <u>Helping Adults Learn: A Guide to Planning, Implementing, and Conducting</u> <u>Programs</u>. San Francisco: Jossey-Bass.

Langbort, C., & Thompson, V. (1985). Building Success in Math. Belmont, CA: Wadsworth.

Montague, W. (1991). <u>ABE/PLATO Correlation</u>. Happy Valley, NF: Labrador Community College.

National Center for Research in Vocational Education. (1986). <u>Individualize Instruction</u> (2nd Edition). Columbus, Ohio: The Ohio State University.

National Center for Research in Vocational Education. (1987a). <u>Prepare to work with Adult Learners</u>. Columbus, Ohio: The Ohio State University.

National Center for Research in Vocational Education. (1987b). <u>Evaluate the Performance of Adults</u>. Columbus, Ohio: The Ohio State University.

Nisbet, J. & Shucksmith, J. (1986). Learning Strategies. London: Routledge & Kegan Paul.

Purton, D. (1990a). <u>Instructional strategies</u> for adults with learning disabilities: Tutor's handbook. Yorkton, Saskatchewan: Parkland Regional College.

Smith, A.D. (1976). <u>Generic Skills Research and Development</u>. Prince Albert, Saskatchewan: Training and Development Station.

Snider, V.E. (1990). What We Know about Learning Styles from Research in Special Education. <u>Educational Leadership</u>, <u>48</u> (2), 53.

Tobias, S. (1980). Overcoming Math Anxiety. New York: Norton.

Winzer, M. (1990). <u>Children with exceptionalities: A Canadian perspective</u>. Scarborough, Ontario: Prentice-Hall.



Included in this appendix are **photocopying masters** to help you provide hand-outs for student orientation sessions. These sections are written in terms which address **learners**. The pages are not numbered or identified as handbook materials. This will allow you to photocopy them directly for **student hand-outs** if you choose. The following topics are covered:

ABE

ABE FRAMEWORK

CREDIT SYSTEM

**GRADUATION REQUIREMENTS** 

COURSE CALENDAR DESCRIPTIONS

STUDENT PROFILES

You are free to reproduce these masters for use in your program.



### Adult Basic Education In Newfoundland And Labrador

The Adult Basic Education (ABE) program was designed to allow adults who have not completed high school a second chance to get a solid, high-quality education. We hope that ABE will help you fulfil your responsibilities in society, and go on to further education, training, employment, and personal enrichment. It brings together the former Literacy, ABE and BTSD programs.

If you are entering Level II, you will be taking courses in three content areas: Communication Skills, Mathematics, and Science. If you are entering Level III, you will be choosing courses for credit in these three areas, and also in the General Options and Employability Skills components. Level II is meant to provide a bridge between the literacy skills adults need to function in our society and the skills which go with high school completion. Level II courses are not credit courses as are those of Level III. This is similar to the system used in junior high and high school. However, if you are enroled in Level II, you are permitted to work on Level III General Options courses for credit towards Level III certification **while** you are in Level II.

Each ABE course is described in terms of learning objectives. Your instructor has ABE Program Guides which list the learning objectives for each course. When you complete the learning objectives for the courses in a level, you will be awarded a completion certificate. In order to receive certification of completion of Level III, you must accumulate <u>36 credits</u>.

### ABE FRAMEWORK

The revised ABE Program has three Levels, as indicated in the following framework:

-	ABE Level I	Communication Skills, including:
		Reading
		Writing
		Oral Communications
		Mathematics
		Science
		General Knowledge

#### INSTITUTIONAL CERTIFICATION

ABE Level II	Communication Skills, including: Reading Writing Spelling Oral Communications Study Skills Mathematics
	-Science General Options (Level III credits)
	Ocheral Options (Level III ciculis)

#### INSTITUTIONAL CERTIFICATION

ABE Level III	36 credits required, including: Minimum of 6 Communication Skills Minimum of 6 Mathematics Minimum of 6 Science Minimum of 4 Employability Skills
	Plus 4 additional courses from the above Maximum of 10 General Options
	May include equivalency and/or maturity credits

#### INSTITUTIONAL CERTIFICATION

### How Do You Accumulate Credits to Graduate from Level III?

You can accumulate ABE credits in a number of different ways:

1. The most obvious way, of course, is to complete some of the ABE courses described in the <u>Calendar of ABE Courses</u>. The number of credits you will get for each course is indicated by the second digit of the course number.

Example: If you complete IM 3211 you will get **two** credits of the 36 required to graduate from Level III.

2. If you successfully completed courses under the "old" ABE program or BTSD program, or through the present provincial high school program, you can be given <u>equivalency credits</u> for them. Those credits will be translated directly into ABE credits in the same content area on a one-for-one basis. If you did high school courses before the reorganization in 1982, one grade 10 or 11 High School Course in Mathematics, English, and Science will give you four ABE credits. If the Mathematics or English you did was divided into two parts worth 100% each (Math A/B, or Algebra/Geometry, or Language/Literature) you can have two credits for each section you completed. Any other High School Courses you might have done (Geography, for example) will give you two General Options credits. If you completed ABE or BTSD before 1983, these courses will count as ABE credits on the same basis as High School Courses where Grade Levels are quoted in your record.

Examples: (1) If you have 18 credits from high school, you will get up to 18 credits toward ABE Level III certification; (2) if you completed a high school credit such as Math 1203 you can carry over the two credits from high school, and be exempted from doing the equivalent ABE courses (IM 3209, IM 3210, and IM 3114 in this example). Your instructor will figure this out. Remember, however, that there is a maximum of 10 General Options credits which you can transfer from the high school program.

3. If you completed courses other than those described by Level III of the ABE program you may be eligible for <u>equivalency credits</u>. For example, you may get credit for driving courses, apprenticeship programs, courses in other languages, and so on, as General Options courses. In order for them to count as **one** ABE credit, these courses must have involved a minimum of 60 hours of learning time, and you must provide certified proof of completion of the course's objectives (a certificate or letter). You can combine courses of less than 60 hours duration in order to qualify for the equivalent credit; however, all regulations regarding proof of completion of the courses' objectives must still be followed. The maximum number of General Options credits you can get is 10.

- 4. If you started ABE in Level II, you can get up to **four** <u>equivalency credits</u> if you continue with Level III. For every five Level II courses you successfully completed, you may be given **one** General Options credit, up to a total of **four** if you completed all 19 Level II courses.
- 5. If you are over 21, you may be given <u>maturity credits</u> in recognition that experience in the adult world can produce competence and understanding equivalent for some purposes, and to varying degrees, to that which you might have gained through formal education. Maturity credits can be awarded to students <u>over age 21</u>, at the rate of one credit for every two years <u>beginning at age 19</u>, up to a <u>maximum of 5 maturity credits</u>. However, you can use your maturity credits only within the General Options category.

## Graduation Requirements

While ABE graduates will still require 36 overall credits, with a minimum of 6 credits in each of Mathematics, Science and Communication Skills, we are now naming specific courses and/or course sequences that must be completed in order to receive the Level III certificate. In addition, a minimum of 4 credits are required to be completed from the Employability Skills section.

## Mathematics

Academic Stream		Advanced Stream		General Mathematics
IM 3212 Algebra IV IM 3213 Algebra V IM 3216 Trigonometry IM 3115 Geometry II	or	IM 3219 Adv. Algebra III IM 3222 Calculus Readiness IM 3221 Adv. Geometry II	or	IM 3106 Bus. Math I IM 3207 Bus. Math II

## **Communication Skills**

IC 3211 Basic Grammar IC 3112 Writing Skills	plus one of:	IC 3116 Business Communications IC 3215 Research Writing IC 3321 Optional Literature
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## Science

Biology	Chemistry	Physics	Science (General)
IB 3113 Ecology IB 3115 Evolution IB 3214 Genetics IB 3316 Human Systems	IH 3215 Chemical Bonding IH 3116 Solution Chemistry IH 3117 Rates, Reactions & Equilibrium	IP 3215 Mechanics I IP 3216 Mechanics II IP 3111 Electricity I IP 3112 Electricity II	IS 3212 Geology or IS 3214 Env. Science

### How Do You Graduate From Level III?

In selecting courses within Level III, **make sure** you fulfil the following credit requirements for certification:

Minimum of 6 Communication Skills credits Minimum of 6 Mathematics credits Minimum of 6 Science credits Minimum of 4 Employability Skills Plus 4 more credits from the subject areas above Maximun of 10 General Options credits, to give **Minimum of 36 Total credits** 

NOTE: If you can transfer a large number of equivalent credits from outside the ABE system (for example, supposing you left the regular high school in grade 12/Level 3), you still have to complete a minimum of <u>six</u> ABE credits if you want to receive an ABE Level III certificate. This must include a minimum of 4 credits in Math, Communication Skills, and/or Science.

With your instructor, select the courses you need to do in order to meet the above requirements, the specific graduation requirements (previous page), and the entrance prerequisites of the institution you plan to enter next. The following Calendar of Course Descriptions will help you choose. Record your choices in your **student profile**.

# Calendar Of ABE Level II Course Descriptions

## **Communication Skills**

#### IC 2011 STUDY AND RESEARCH SKILLS

If you have been out of school for a long time, this course will help you get back into studying. You will learn how to use reference books and libraries, take notes, take tests, and organize your time.

#### IC 2012 VOCABULARY

Students in this course will review spelling and word meaning.

#### IC 2013 READING COMPREHENSION

This course is designed to develop the student's ability to understand and evaluate what is read. Newspapers, magazine articles, novels, poetry, and short stories will be used to develop thinking skills.

#### IC 2014 LITERATURE

This course is designed to introduce learners to the study of literature: essays, short stories, novels, poems, and plays.

#### IC 2015 WRITING SKILLS

Students in this course will review basic grammar skills needed in writing and will practice identification and proper use of punctuation and various parts of speech in sentence construction.



## Mathematics

#### IM 2011 WHOLE NUMBERS

This course covers reviews "arithmetic", addition, subtraction, multiplication, and division of whole numbers.

#### IM 2012 FRACTIONS

Students in this course will concentrate on adding, subtracting, multiplying, and dividing fractions.

#### IM 2013 DECIMALS

Students in this course will concentrate on adding, subtracting, multiplying, and dividing decimals, and will cover time and money concepts.

#### IM 2014 PERCENT

Students will deal with various problems related to calculating percentages.

#### IM 2015 SI MEASUREMENT

Students will learn to calculate the answers to problems involving metric measurements.

#### IM 2016 INTRODUCTORY GEOMETRY

This course introduces students to geometry by covering forms and figures, angles and triangles, perimeter, area, and volume.

#### IM 2017 INTRODUCTORY STATISTICS

This course introduces students to reading and constructing graphs, defining and calculating statistical measures.

#### IM 2018 INTRODUCTORY ALGEBRA

This course introduces signed numbers and initial algebra concepts.

#### IM 2019 WORD PROBLEMS

Students in this course will apply the techniques learned in IM 2011, IM 2012, and IM 2013 to solving problems expressed in words.

## Science

#### IS 2011 INTRODUCTION TO SCIENCE

This course introduces students to the nature and processes of science.

#### IS 2012 HEALTH

This course covers health-related issues which are important to being healthy individuals and raising healthy families. Nutrition, hygiene, diseases, family planning, and drug abuse are included.

#### IS 2013 MATTER

This course introduces students to chemistry by covering concepts such as the structure of matter, physical change, and chemical change.

#### IS 2014 ENERGY

This course introduces students to physics concepts by examining concepts related to energy and how we use it.

#### IS 2015 THE PLANET EARTH

Students in this course will study basic concepts related to the sun, the moon, and the earth; weather and climate; and the effects of pollution.



# Calendar Of ABE Level III Course Descriptions

## **Communication Skills**

#### IC 3211 BASIC GRAMMAR

Many adults returning to an educational setting after an absence of several years may need to review basic grammar skills. This course is designed to refresh the student in the elements of grammar which are basic to writing. Students in this course will practice identification and proper use of various parts of speech in sentence construction.

#### IC 3112 WRITING SKILLS

Students in this course will identify principles of paragraph and essay construction, and practice in the steps followed in writing various kinds of essays.

#### IC 3113 EVALUATIVE COMPREHENSION

This course is designed to develop the student's ability to understand and evaluate what is read. Students will identify types of thinking, understand the use of evidence in reasoning, and examine propaganda, advertising, argumentation, and persuasion. Students will then be asked to apply these principles in constructing argumentative and persuasive essays.

#### IC 3214 A/B ORAL COMMUNICATIONS

In this course, students will examine the communication process, practice listening and speaking skills, and employ effective oral communications skills in the context of various interactions, including interviews, discussions, meetings, and debates. Students may complete Part A of this course for **one** credit, or both A and B for **two** credits.

#### IC 3215 RESEARCH WRITING

This course is designed to prepare students to write research papers. Students will learn to research a topic through various sources, then prepare and construct a paper. This course should be extremely useful to students intending to go on to further education.

#### IC 3116 BUSINESS COMMUNICATIONS

This course contains a short grammar refresher, but focuses mainly on production of the various forms of written communications commonly used in a business setting, including letters, memoranda, and short reports.

#### IC 3117 VOCATIONAL ENGLISH

Students in this course will examine and practice communications skills related to the job situation. Skills will be practised within the context of interacting with employers and co-workers, applying for jobs, communicating in interviews, writing on the job, and participating in meetings.

#### IC 3218 A/B INTRODUCTION TO LITERATURE

Students in this course will be introduced to the structural elements of various literary genres, including essays, short stories, novels, drama, and poetry. This course will encourage students to respond emotionally and reflectively to the language and structure of literature. It will help students value and appreciate literature as an art form which not only gives personal enjoyment, but also deepens and broadens self-understanding. Students may do Part A of this course for **one** credit, or both parts for **two** credits.

#### IC 3219 NEWFOUNDLAND LITERATURE

This course is designed to introduce students to a variety of Newfoundland and Labrador writings, to help them become familiar with the major Newfoundland and Labrador authors, and to increase their understanding and appreciation of their literary heritage, their unique characteristics and culture.

#### IC 3220 CANADIAN LITERATURE

As do IC 3218 and IC 3219, this course covers the structural elements of various literary genres. In this case, the context lies within Canadian writings. Students will consider aspects of Canadian character and culture as reflected in the literature.

#### IC 3321 OPTIONAL LITERATURE

Students who wish to study any other high school literature course, for example Thematic Literature, may do so within the ABE system for credit.



### Mathematics

#### IM 3101 ALGEBRA READINESS

This is an introductory course which concentrates on solving and applying linear equations in one variable and covers operations with polynomials.

#### IM 3102 GEOMETRY READINESS

All students who wish to take further Geometry courses in Level III must take this introductory course which introduces you to deductive geometry (axioms, postulates, theorems).

#### IM 3203 CONSUMER MATHEMATICS

This course concentrates on mathematics skills associated with being a responsible consumer. Personal banking, taxes, insurance, and family budgeting will be covered.

#### IM 3204 PRACTICAL MATHEMATICS I

This course will provide a good practical background for students entering trades programs. Measurement, equations, formulas, solid geometry, ratio and proportion will be covered.

#### IM 3205 A/B PRACTICAL MATHEMATICS II

Students may complete half of this course for **one** credit, or all of it for **two** credits. Mathematical concepts may be covered in the context of house building and/or graphic arts.

#### IM 3106 BUSINESS MATHEMATICS I

Students in this course will cover the mathematics processes through a consumer's perspective, examining business discounts and mark-up, depreciation, and payroll calculations.

IM 3207 BUSINESS MATHEMATICS II

The mathematics in this course will be covered from the entrepreneur's perspective. Students will perform calculations associated with establishing and operating a business.

#### IM 3208 STATISTICS

Statistical concepts will be introduced in this course. Students will learn the mathematics involved with collecting and organizing data, the normal distribution, and probability.

#### IM 3109 ALGEBRA I

This course introduces the Real Number System; it covers operations with polynomials and factoring polynomials.

#### IM 3210 ALGEBRA II

This course covers linear sentences, systems of linear equations, and rational expressions.

#### IM 3211 ALGEBRA III

Students in this course will define functions, learn to describe and sketch graphs of various functions; and be introduced to quadratic equations.

#### IM 3212 ALGEBRA IV

This course will allow students to study Conic Sections (circles, parabola, ellipse, hyperbola), exponential functions, and logarithms.

#### IM 3213 ALGEBRA V

The focus in this course is on polynomial functions, arithmetic and geometric sequences and series, as well as permutations and combinations.

#### IM 3114 GEOMETRY I

This course will cover parallel lines, congruence, and 3-D Geometry.

IM 3115 GEOMETRY II

Applications of concepts related to similarity and circles will be the focus of this course.

#### IM 3216 TRIGONOMETRY

This course introduces students to right triangle trigonometry and its applications.

#### IM 3217 ADVANCED ALGEBRA I

Real number system, exponents, polynomials and factoring, rational expressions, and linear inequalities make up this course.

#### IM 3218 ADVANCED ALGEBRA II

Students in this course look at systems of equations, quadratic equations, linear and quadratic functions.

#### IM 3219 ADVANCED ALGEBRA III

This course covers polynomials, transcendental functions, conic sections, trignometric functions, and analytic trigonometry.

#### IM 3220 ADVANCED GEOMETRY I

Students study basic concepts, are introduced to proofs, and learn about parallelograms and trapezoids in this course.

#### IM 3221 ADVANCED GEOMETRY II

In this course students focus on ration, proportion and similarity; right triangles and trigonometry; and circles.

#### IM 3222 CALCULUS READINESS

In this course students learn about functions, sequence and series, and are introduced to calculus.

### Science

#### IB 3211 CYTOLOGY

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This course will introduce students to the microscope, and focus upon the structure and functions of the cell. This course should be taken before IB 3212, IB 3215, or IB 3316.

#### IB 3212 A/B LIVING THINGS

This course will examine the diversity in living things and the basis upon which they are classified. Microscopic organisms, plants, and animals will be studied. Students may complete parts A (Zoology) or B (Botany) for one credit, or both parts for two credits.

#### IB 3113 ECOLOGY

The relationships between living things and their environment will be studied in this course. Concepts covered will include biosphere, biome, community, population, and succession.

#### IB 3214 GENETICS

Students in this course will meet basic genetic concepts, predict the results of various genetic crosses, consider some genetic diseases, and consider the mechanism by which the genetic code is translated into life processes. Cytology (IB 3211) or its equivalent should be completed before doing this course.

#### IB 3115 EVOLUTION

Students will examine several theories of evolution, the evidence which supports them, and the adaptation of living things to their environment.

#### IB 3316 HUMAN SYSTEMS

Students in this course will cover in depth the structure, functions, and processes of the human systems. Cytology (IB 3211) or its equivalent should be completed before doing this course.

#### IS 3211 OCEANOGRAPHY

This course will introduce students to the study of the marine environment. Included in the topics covered will be: properties of fresh and salt water, physical features of the ocean floor, waves, currents, climates, ocean resources, and pollution.

#### IS 3212 GEOLOGY

Basic geological concepts will be covered in this course. Students will be introduced to rocks, minerals, weathering, erosion, plate tectonics, Earth history, and Newfoundland and Labrador geology.

#### IS 3213 PHYSICAL SCIENCE

This course will introduce students to basic concepts in Chemistry and Physics.

#### IS 3214 ENVIRONMENTAL SCIENCE

Students in this course will consider environmental issues on a local and global level, concentrating on the effects of human activities upon the environment.

#### IS 3215 LIFE SCIENCE

Students may complete either Part A (The Characteristics of Life) or Part B (Human Life and Health) for **one** credit or both parts for **two** credits. Credits cannot be given for this course if the student has credits for Citology, Human Systems, or their high school equivalents.

#### IH 3111 INTRODUCTORY CHEMISTRY

This course introduces basic concepts about the structure and classification of matter. Models which explain the structure of the atom will be examined. The periodic table will be used to classify and describe elements.

#### IH 3112 CHEMICAL LANGUAGE

Students in this course will focus on writing names and formulas for molecular substances, ionic substances, and acids. Properties of these substances will be examined. Different types of chemical reactions will be considered and represented by equations. A pre-requisite is IH 3111.

#### IH 3113 REACTIONS AND EQUATIONS

This course continues from IH 3112 to cover chemical reactions and equations. Prerequisties are IH 3111 and IH 3112.

#### IH 3114 THE MOLE AND STOICHIOMETRY

This course introduces students to the "arithmetic" of chemistry. Mathematical skills,



the mole concept, and calculations relating to chemical reactions will be covered. Prerequisites are IH 3111, IH 3112, and IH 3113.

#### IH 3215 CHEMICAL BONDING

This course will concentrate on theories which explain the bonding together of substances, and the resulting properties of the compounds formed. It is not a prerequisite to other Chemistry courses, but students going on to further education where Chemistry is required should take this course. Pre-requisites are IH 3111, IH 3112, IH 3113, and IH 3114.

#### IH 3116 SOLUTION CHEMISTRY

Students in this course will focus on concepts related to solutions and solubility, perform calculations related to solutions, and prepare various types of solutions. Pre-requisites are IH 3111, IH 3112, IH 3113, and IH 3114.

#### IH 3117 RATES, REACTION, AND EQUILIBRIUM

This course will focus on rates of chemical reactions and chemical equilibrium. Factors which affect equilibrium and principles which explain them will be considered. Pre-requisites are IH 3111, IH 3112, IH 3113, and IH 3114.

#### IH 3118 ACIDS AND BASES

Students in this course will consider various definitions of acids and bases, perform calculations related to the strength of acids and bases, and determine the concentration of some samples of these substances. Pre-requisites are IH 3215, IH 3116 and IH 31.

#### IH 3119 ORGANIC CHEMISTRY

This course covers organic compounds and hydrocarbons. Pre-requisites are IH 3215, IH 3116, IH 3117, and IH 3118.

#### IH 3120 ELECTROCHEMISTRY

This course deals with oxidation-reduction equations, electrochemical and electrolytic
cells. Pre-requisites IH 3215, IH 3116, IH 3117, IH 3118, and IH 3119.

#### IP 3111 ELECTRICITY I

Students in this course will examine concepts about static and circuit electricity, and perform calculations related to electrical force, Ohm's Law, series circuits, and parallel circuits.

#### IP 3112 ELECTRICITY II

This course focuses on electrical energy, magnetism, and electromagnetism. Students will apply principles on these topics to calculation of power costs, and to understanding motors, relays, generators, alternators, and transformers. A pre-requisite is IP 3111.

#### IP 3213 WAVES

This course will cover concepts relating to light and sound. Included will be such topics as the nature of waves, sound characteristics and problems, the nature and transmission of light, reflection, refraction, optical instruments, and colour.

#### IP 3214 FLUIDS AND HEAT

Students in this course will consider concepts, principles and calculations related to density, pressure, and forces in fluids. As well, they will consider and measure temperature, heat, heat transfer, heat loss, heat gain, and expansion.

# Appendix A

#### IP 3215 MECHANICS I

Students in this course will graph and resolve concurrent vector forces, solve problems relating to speed, distance, time, and motion, consider Newton's Third Law, and solve problems related to parallel forces.

#### IP 3216 MECHANICS II

This course will cover concepts related to dynamics, energy, and machines. Students will examine Newton's First and Second Laws, the Law of Conservation of Linear Momentum, and the Law of Conservation of Energy. They will solve problems related to force, friction, mass, velocity, momentum, impulse, energy, work, power, mechanical advantage, and efficiency. A pre-requisite is IP 3215.

### **Employability Skills**

#### IE 3211 CONSUMER STUDIES

Students in this course will consider factors related to being a responsible adult consumer. Topics to be covered include decision making, managing personal resources, effective purchasing, and consumer protection.

#### IE 3212 COMPUTER STUDIES

This course is designed as a computer awareness course to provide students with an awareness of the computer and its applications. Included in the topics covered will be the role of computers in society, the components and functions of a computer system, the keyboard, the disk operating system, word processing, spreadsheets, and databases.

#### IE 3213 CAREER A WARENESS

This course is designed to prepare adults for employment. Included in the topics to be covered are the workplace, career exploration, self-knowledge, career selection, job search strategies, interviews, and applications.

#### IE 3214 PERSONAL DEVELOPMENT

Although personal development is an internal and private process, this course was designed to help in the development of life skills and the understanding of oneself. Included in the topics covered will be self-concept, problem-solving, interpersonal communications skills, stress management, time management, and assertiveness.

# Appendix A

### **General Options**

#### IG 3211 NEWFOUNDLAND AND LABRADOR CULTURE

This course is designed to develop an appreciation of the unique aspects of Newfoundland and Labrador cultural heritage. Students will examine the ethnic origins of communities, folklore, the fishery and other resources, the political system, the economy, social issues, and influences upon our culture.

#### IG 3112 PHYSICAL EDUCATION

Students in this course will examine concepts related to physical fitness and wellbeing. The physical activity in which the student participates may be negotiated with the instructor.

#### IG 3113 RELIGIONS OF THE WORLD

This course will cover the origins, beliefs, and practices of major Western religions and selected Eastern religions.

#### IG 3114 CANADIAN ISSUES

This course will focus on contemporary social, political, economic, and global issues. Instructors and students may agree upon the particular issues to be studied in depth.

#### IG 3215 FAMILY STUDIES

Students in this course will examine issues related to being a responsible parent or family member. Family relationships, family planning, effective parenting, family-related problems, nutrition, and budgeting will be covered.

#### IG 3116 WOMEN'S STUDIES

Students in this course will consider the women's movement in a historical and modern context, sex-role stereotyping, lobby groups, women in the workplace, daycare, the feminization of poverty, and personal experiences.

#### IG 3217 CONTEMPORARY HISTORY

Students in this course will focus on world history from the World War I era to present times.

#### IG 3118 INDIVIDUAL STUDY PROJECT

Self-directed learners who wish to pursue a topic which interests them may use the guidelines provided in this course to negotiate and complete a project in any area.

#### IG 3119 CANADIAN LAW

Students in this course will examine various aspects of Canadian law, including meaning, functions, classes, and development of law; criminal and civil law; the Charter of Rights and Human Rights legislation; law and the workplace; and law and the marketplace.

#### IG 3120 DEMOCRACY

Students in this course will examine basic concepts of democracy, the political system, parliamentary process in Canada, and the operation of federal, provincial, and municipal governments.

#### IG 3221 HUMAN GEOGRAPHY

This course is designed to apply basic geography concepts to human considerations. Effects of climate on human activities, management of world resources, world populations, land use, linkages, and political activities will be covered.





Candidates shall have completed the Level III Adult Basic Education Certificate with the approved combination of thirty-six credits set down by the Department of Education and Training and they shall have successfully completed, with an overall average of at least 70%, the following courses as outlined below:

### Communication Skills:

IC 3113, IC 3112, IC 3215, and IC 3321

#### Mathematics:

The group of IM 3211, IM 3212, IM 3213, IM 3115, IM 3216 Or: The group of IM 3218, IM 3219, IM 3221

#### Science:

The group of:

Physics: IP 3214, IP 3215, IP 3216, IP 3111, IP 3112, IP3213 Or: Chemistry: IH 3111, IH 3112, IH 3113, IH 3114, IH 3215, IH 3116, IH 3117, IH 3118 Or: Biology: IB 3211, IB 3212 A/B, IB 3113, IB 3214, IB 3115, IB 3316

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